AN EQUAL OPPORTUNITY INSTITUTION

In compliance with federal law, including the provisions of Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, and the Americans With Disabilities Act, Johnston Community College does not practice or condone discrimination in any form against students or employees on the basis of race, color, gender, handicap, age, religion, or national origin in its administration of education policies; scholarship and loan programs; or employment. Inquiries or complaints should be addressed to the Dean of Students, Wilson Building, (919) 209-2048; and/or the Dean of Administrative, Fiscal and Personnel Services, Wilson Building, (919) 209-2051.

NOTICE OF WAIVER

This catalog is issued to provide information concerning the College and its programs. Though the information herein is as accurate as possible, the information, programs of study, and announcements listed are subject to change without notice, and should not be considered as a binding obligation on the College or State. JCC reserves the right to change its regulations, policies, fees, and programs without notice.

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ACCREDITATIONS/APPROVALS

Johnston Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the Certificate, Diploma, and Associate Degree.

In addition to the SACS accreditation, Johnston Community College is accredited or approved by the following:

- Division of Facility Services: Nurse Aide Registry
- Joint Review Committee on Accreditation of Nuclear Medicine Technology Program (Pending 2005)
- Joint Review Committee on Education in Diagnostic Medical Sonography
- Joint Review Committee on Education in Radiologic Technology
- National Association for the Education of Young Children
- North Carolina State Board of Nursing (approval)
- North Carolina Criminal Justice Education and Training Standards Commission – (BLET)
- North Carolina State Board of Cosmetic Arts

Johnston Community College is an approved teaching site through the North Carolina Office of EMS and is recognized as a training center for the American Heart Association. The College is also an approved teaching site for Pre-Hospital Trauma Life Support through the National Association of EMT.
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<td>April 14</td>
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<tr>
<td>Last Day to Pay for Telephone Registration</td>
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<td>May 8</td>
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<td>Grades Due</td>
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<td>Last Day to Drop for 75% Refund</td>
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<td>Fourth of July Holiday</td>
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Approved by Administrative Council 6/04. Revised 1/05.
Fall Semester, 2006

On Campus Advising and Registration: August 10 & 11
Faculty Planning Days: August 14 & 15
Student Orientation: August 14 & 15
Classes Begin: August 16
Last Day for Late Registration and Drop/Add: August 17
Last Day to Drop for 75% Refund: August 28
Labor Day Holiday: September 4
Fall Break for Students: October 9 - 13
Faculty Development Days: October 9 & 10
Last Day to Drop without Grade Penalty: October 16
Advising for Spring – New & Returning Students: November 16 - 30
Telephone Registration for Spring: November 23 & 24
Thanksgiving Holidays: November 23 & 24
Last Day to Pay for Telephone Registration: December 4
Last Day of Classes and Exams: December 12
Grades Due: December 13 by 10 AM

Spring Semester, 2007

On-Campus Advising and Registration: January 3
Faculty Planning Days: January 4 & 5
Student Orientation: January 4 & 5
Classes Begin: January 9
Last Day for Late Registration and Adding Courses: January 10
Martin Luther King Holiday: January 15
Last Day to Drop for 75% Refund: January 22
Last Day to Drop without Grade Penalty: March 6
Advising for Summer - New & Returning Students: March 5 - April 16
Spring Break: March 12 - 16
Telephone Registration for Summer: April 2 - 16
Easter Holiday: April 6
Last Day to Pay for Telephone Registration: April 18
Last Day of Classes and Exams: May 7
Grades Due: May 8 by 10 AM
Graduation – Diploma & Associate Degree: May 14

Ten-Week Summer Session, 2007

Four Day Work Week Begins: May 7
On-Campus Advising and Registration: May 15
Classes Begin: May 16
Last Day for Late Registration and Adding Courses: May 17
Advising for Fall – New & Returning Students: May 21 - July 17
Last Day to Drop for 75% Refund: May 22
Last Day to Drop without Grade Penalty: June 19
Fourth of July Holiday: July 4 & 5
Telephone Registration for Fall – New & Returning Students: July 2 - 17
Last Day to Pay for Telephone Registration: July 19
Last Day of Classes and Exams: July 26
Grades Due: July 30 by 10 AM
Graduation – Certificate, GED, & Adult High School: August 1
Last Four Day Work Week: July 30

Approved by Administrative Council 1/05, 2/05
Johnston Community College had its beginnings in early 1967 when the Smithfield Chamber of Commerce appointed a steering committee headed by the late M. Brack Wilson Sr., a prominent Smithfield businessman and civic leader, to study the need for a post-secondary educational institution for Johnston County and surrounding areas.

This study led to the establishment in 1969 of Johnston County Technical Institute, the 51st institution in the North Carolina Community College System. M. Brack Wilson Sr. was elected chairman of the Institute’s newly-appointed Board of Trustees, and William R. Britt, vice-chairman. Dr. John L. Tart was chosen by the board to be the founding President of Johnston County Technical Institute. In September 1969, under his leadership, the Institute enrolled more than 500 students in 29 evening courses at its temporary campus at the former Forest Hills School, on Highway 301 South near the town of Four Oaks.

Adult High School classes were soon offered and a new industry training program was initiated in December of 1969. General Office Technology was the Institute’s first full-time, on-campus program. The first full-time, off-campus program, Basic Electrical Installation and Maintenance, began in June of 1970.

The Institute climaxed its first year of operation with the Adult High School graduation exercises on August 26, 1970. Occupational education curriculum programs also began that fall and included a unique “Veterans Farm Cooperative” training program in conjunction with the Johnston County Public Schools.

In January of 1971, the Johnston County Technical Institute was changed to Johnston Technical Institute and in August its first full graduation was held with 31 curriculum students receiving diplomas. As student enrollment increased, the need for a permanent campus became clearly evident. Accordingly, a one-hundred acre tract of land, located near the center of the county at the intersection of Interstate 95 and U.S. Highway 70, east of Smithfield, was purchased by the Board of Trustees on December 4, 1971.

Although growth continued, progress was not always even and smooth. In the early morning of February 12, 1976, a major fire destroyed the main classroom building on the Forest Hills campus. The cause of the fire was thought to have been faulty wiring. Arrangements were made immediately to continue classes in temporary quarters at various off-campus locations and in the gymnasium on the campus.

Prior to the fire, the first major building on the permanent campus east of Smithfield was under construction. It provided 51,000 square feet for classrooms, laboratories, shops, and other modern facilities for post-secondary adult education and was named the Wilson Building for the Institute’s first Board of Trustees chairman.

On September 13, 1976, students began classes on the new campus. Completion of three additional buildings added 30,000 square feet of classroom and laboratory space.

The Institute was fully accredited by the North Carolina State Board of Education on July 7, 1977 and by the Southern Association of Colleges and Schools on December 13, 1977.

On June 2, 1980, by action of the Johnston County Board of Commissioners, the name of Johnston Technical Institute was changed to Johnston Technical College.

During 1981, enrollment exceeded 2,500 full-time equivalent students. Buildings and facilities were being utilized to a practical maximum, and plans were developed to construct a vocational building of 17,500 square feet to provide laboratories, classrooms, and faculty office space for diesel mechanics, a machine shop, and the Truck Driver Training program.

Construction of the facility was completed in early 1983. The North Carolina Truck Driver Training School, the oldest publicly operated program of its kind in the nation, was moved to the Smithfield campus from Raleigh in August of 1983. Subsequently, a comprehensive fire fighting and rescue squad educational facility was constructed in cooperation with the county rescue squads and fire departments. The training complex was completed in 1988.

An addition to the Wilson Building was completed in the spring of 1985 to provide additional classroom facilities for a computer center, and a more adequate student lounge.

In August of 1987, the Trustees and Johnston County Board of Commissioners acted to change the name of Johnston Technical College to Johnston Community College.

Construction was begun in October of 1987 on a Learning Resource Center/Auditorium building adjacent to the Wilson Building. This facility, initially called the Arts and Learning Center, was formally dedicated on August 20, 1989, the twentieth anniversary of the College. The auditorium was officially named the Paul A. Johnston Auditorium in honor of the facility’s major benefactor.

In the spring of 1995, the College’s Board of Trustees voted to name the Arts and Learning Center the John L. Tart Arts and Learning Center in honor of Dr. Tart’s service and inspiration in the development of the facility designed to serve the citizens of Johnston County and surrounding areas. At the same time, the Technical Building was officially designated the Elsee Building, in honor of the late Walter B. Elsee’s distinguished service as a trustee of the College.

In 1995, Johnston Community College Trustee Rudolph Howell donated 2,850 acres of woodlands located in Bentonville Township to the College. Designated the "Rudolph..."
Howell and Son Environmental Learning and Conference Center, the area is being developed into a community-based educational resource. Construction was completed in early 1998 on a facility housing a classroom, staff offices, and meeting area.

The Johnston Community College Cleveland Campus offered its first classes in May of 1996. This JCC branch campus features modern classrooms and a state-of-the-art computer lab in addition to a community “meeting hall.” This facility makes educational opportunities more accessible to the fast-growing western Johnston County populace. Classes are offered according to community needs.

Construction was begun in early 1998 on a facility to house the Johnston Community College Arboretum located on the College’s campus just off U.S. Highway 70 Business. In mid-1998, construction was completed on a new Allied Health Building and classes were held in this facility beginning with the fall semester. This 37,000 square foot structure houses the Allied Health and Early Childhood programs and a preschool facility serving the students, faculty, staff, and public.

In August 1998, Dr. John Tart retired after 29 years of outstanding service as president of the College. Dr. Donald L. Reichard, formerly president of James Sprunt Community College in Kenansville, was selected to lead Johnston Community College into the new millennium.

Since 1999, the College has witnessed steady enrollment growth leading to a “crunch” for space. Fortunately, in November of 1999, the citizens of Johnston County passed a $3 million construction bond. With this construction money, a new physical education and classroom building, the Roger A. Smith Building, opened in January of 2003.

In November of 2001, the State of North Carolina passed a $3.1 billion bond referendum (the largest in the history of the United States) for the state’s community colleges and universities. Johnston Community College’s share of $10.2 million is being used for new construction and renovations.

As a result of these funds, a new 28,000 square foot industrial technology building, the Britt Building, opened in the fall of 2004. The Britt Building houses the Machining Technology and Air Conditioning, Heating and Refrigeration Technology programs, as well as other industrial programs. Additions and/or renovations are also being made to all of the existing buildings on campus. Thanks to the voters, Johnston Community College will have the space to offer the education and training needed in our service area over the decade ahead.

CAMPUS

Johnston Community College is located on three sites. The Smithfield campus is on a beautiful wooded 100-acre site near the intersection of U.S. Highway 70 Business and Interstate 95, east of Smithfield, North Carolina. Bordering both sides of College Road, the campus has 15 buildings, two scenic ponds with fountains, athletic fields, and an Arboretum.

The Cleveland Campus is located on N.C. 1010 in the Cleveland School Community. The Cleveland facility houses a computer lab, the only stand-alone Esthetics program in the state, and classrooms used for curriculum and continuing education programs.

The Rudolph Howell & Son Environmental Learning Center, also known as Howell Woods, is located on Devil’s Race-track Road near Bentonville Battleground. This educational and recreational center is over 2,800 acres of farmland, pristine hardwood, and pine forest located on the Neuse River. Commonly referred to by locals as the “Neuse Low-Grounds,” this area represents practically all of the flora and fauna indigenous to Eastern North Carolina. Made possible through the philanthropy of Mr. and Mrs. Rudolph Howell, the environmental learning center is proving to be a resource unsurpassed in our region for environmental education.
EXPANDED STATEMENT OF INSTITUTIONAL PURPOSE

Preamble

Johnston Community College in Smithfield, North Carolina, is located thirty miles east of Raleigh near the junction of Interstate 95 and U.S. Highway 70 Business. The 100-acre campus boasts state-of-the-art facilities, picturesque pines, colorful azaleas, and scenic ponds.

Originally, established in 1969 in Four Oaks, North Carolina, and moved to its current location in 1976, JCC has maintained its small town values while progressively meeting the needs of the fastest growing county in North Carolina.

The College was fully accredited in 1977. As a member of the North Carolina Community College System, it is a public, two-year post-secondary college with an open-door admission policy.

Johnston Community College provides comprehensive occupational, general, and continuing education programs, as well as community service activities for Johnston County and surrounding areas. The College opens its doors to the community and seeks to provide for the fullest possible development of the potential of all students in order that they may increase their knowledge and understanding of life; that they may develop occupational and educational proficiencies in accordance with their interests, talents, and aspirations; and that they may continue their personal growth. To that end, the College, in its programs, services, and future plans, strives to reflect the unique demographic, economic, and culturally diverse area it serves.

Mission Statement

Johnston Community College is an open-door, community-based, educational institution continually aspiring to be a caring, committed provider of state-of-the-art educational programs, comprehensive career training, and a variety of cultural opportunities. The College’s primary mission is to assist all adults in developing their innate potential for full participation as educated, responsible, technologically competent members of a rapidly changing democratic society. Johnston Community College strives to be an effective, accountable organization responsive to the changing needs of the local, regional, and global community.

Institutional Goals

1. To prepare individuals for enhanced employment opportunities or for transfer to institutions of higher learning by planning and implementing affordable, comprehensive curriculum and extension programs offered through a variety of modalities, from traditional classroom instruction to distance education.

2. To develop new programs in collaboration and/or partner-ship with business and industry, Johnston County Schools, governmental agencies, other institutions of higher learning and various constituent groups in response to changing workforce needs.

3. To ensure high quality and continuous improvement in all programs and services by facilitating opportunities for faculty and staff to develop professionally, increase their abilities to utilize up-to-date technology, and become more adept in working with a diverse student population.

4. To increase the diversity of the faculty, staff, and student populations by recruiting individuals of various age groups from all ethnic, cultural, religious, and educational experiences.

5. To increase student achievement of academic and career goals by providing a comprehensive array of educational and administrative support services for a diverse student population.

6. To enhance community satisfaction and improve citizens’ quality of life by sponsoring cultural enrichment and other community-based programming activities.

7. To create an environment conducive to learning by maintaining a safe, healthy, state-of-the-art, and well-equipped facility.

8. To ensure the efficient, appropriate, and effective use of all available resources through a high level of accountability.

9. To project a positive image, reflective of our mission, through public relations and marketing activities.

10. To enhance all of the College’s educational programs and support services through planning responsibly, maintaining institutional effectiveness, conducting research, and pursuing external funding.

2002-2003 PERFORMANCE MEASURES RESULTS

In February 1999, the North Carolina Board of Community Colleges adopted 12 performance measures for accountability. The performance measures focus primarily on student success and serve as the college’s major public accountability tool.

Each performance measure begins with a description/definition, the standard that must be achieved, and the college’s performance for that measure. Additional information on the 12 performance measures can be found in the Johnston Community College Office of Planning and Research.

1. Progress of Basic Skills Students.

Basic skills students include all adult literacy students. Progress of basic skills students is a composite measure that includes the percent of students progressing within a level of literacy, the percent of students completing a level entered or a predetermined goal, and the percent of students completing the level entered and advancing to a higher level. The standard for progress is 75 percent for
the adjusted composite measure. Johnston Community College’s performance was 76 percent.

2. **Passing Rates on Licensure & Certification Examinations.**

This measure reports the percentage of first-time test-takers from Johnston Community College passing an examination required for North Carolina licensure or certification prior to practicing the profession. There are two standards that must be met for this measure: the aggregate institutional passing rate of 80 percent and the minimum accepted performance on any single reported examination of 70 percent. Johnston Community College met the aggregate institutional passing rate with 84 percent. Individual scores on specific programs are as follows: Basic Law Enforcement Training – 77 percent; Cosmetic Arts Apprentice - 100 percent; Cosmetic Arts Esthetics – 95 percent; Emergency Medical Technician (EMT ) 74 percent, (EMT-D) 90 percent, (EMT-I) 64 percent, (EMT-P) 100 percent; Radiography – 100 percent; Nursing – (Practical) 100 percent, (Registered) 91 percent; Real Estate – 41 percent. Any exam not listed had a number of test-takers too small to report without violating students’ privacy.

3. **Performance of College Transfer Students.**

The purpose of this measure is to compare the performance of Johnston Community College’s associate degree students (Associate in Arts, Associate in Science, and Associate in Fine Arts) who transfer to public North Carolina universities with students native to the four-year institutions. There are two standards that must be met for this measure. The first standard compares the performance of the Johnston Community College transfer degree recipients after two semesters at the public university to the performance of native juniors. The second standard compares the performance of the Johnston Community College transfer students who complete at least 24 semester hours or more of college transfer courses at Johnston Community College (but not completing the degree) to the performance of native sophomores. Both standards require that at least 85.9 percent of the students (an aggregate of the two categories) achieve a grade point average (GPA) of 2.0 or higher after two semesters at a UNC institution. Johnston Community College students’ performance on the first standard was 94.4 percent in 2000-01 and 84.6 percent in 2001-02. The percentage on the second standard was 67.7 percent in 2000-01 and 84.4 percent in 2001-02. When combining the two standards, the aggregate for each year was 76.9 percent for 2000-01 and 84.4 percent for 2001-02.

4. **Goal Completion of Completers.**

The definition of this measure is the proportion of graduates of certificate, diploma, and degree programs who report that their primary goal for attending Johnston Community College has been met. The performance standard for Completers is 95 percent. Johnston Community College’s average was 100 percent.

5. **Employment Status of Graduates.**

The definition of this measure is the proportion of identified Johnston Community College Completers who are employed within one year of last attendance. The performance standard is that 95 percent of Completers (adjusted for local unemployment rate) will be employed. Johnston Community College’s expected performance rate, when adjusted for unemployment, is 96 percent. The rate actually achieved was 99.17 percent.

6. **Satisfaction of Program Completers and Non-Completers.**

This measure reports the proportion of graduates and early-leavers who indicate that the quality of the college programs and services met or exceeded their expectations. The standard is that 90 percent of the combined respondents will report being satisfied with the quality of Johnston Community College’s programs and services. Ninety-seven percent of the combined respondents reported being satisfied with the quality of the college’s programs and services.

7. **Passing Rates of Students in Developmental Courses.**

The definition of this measure is the percent of students who complete developmental English, mathematics, and reading courses with a grade of “C” or better. The standard is that 70 percent of students who complete a developmental course will have a grade of “C” or better for that course. Ninety-two percent of Johnston Community College students taking a developmental course completed the course with a grade of “C” or better.

8. **Program Enrollment.**

This measure monitors a three-year average annual unduplicated headcount minimum of ten students in each curriculum program. Only one of the College’s programs failed to meet this standard.

9. **Curriculum Student Retention and Graduation.**

This composite measure consists of the number of individuals completing a curriculum program with a certificate, diploma, or degree and number of individuals who have not completed a program but who are continuing enrollment in either curriculum or occupational extension programs. The performance standard for this measure stipulates that 60 percent of the defined fall student population will either have completed their program or still be enrolled the following fall at Johnston Community College. Sixty-seven percent of Johnston Community College students either graduated or are still enrolled at the college.
10. Employer Satisfaction with Graduates.
This measure is intended to determine the satisfaction of organizations whose employees have been trained through a community college. The performance standard for this measure is that 85 percent of employers surveyed will report satisfaction. Ninety-four percent of employers who returned a survey indicated that they were satisfied with the job preparation of Johnston Community College graduates. (Of the employers contacted, 37 percent responded to the survey.)

11. Client Satisfaction with Customized Training.
This measure is intended to determine the satisfaction of organizations that received services from Johnston Community College. The performance standard for this measure is that 90 percent of businesses/industries surveyed will report satisfaction with the services provided by Johnston Community College. One hundred percent responded that they were satisfied with the Customized Training provided by Johnston Community College.

12. Success Rate of Developmental Students in Subsequent College-Level Courses.
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, to pass curriculum courses. The performance standard for this measure is that there will be no statistically significant difference in the performance of developmental students when compared to non-developmental students. The data for this measure indicates that 81 percent of the students who completed a developmental course(s) had a grade of “C” or better in subsequent college-level courses, whereas 87 percent of the non-developmental students had a grade of “C” or better in subsequent college-level courses.
GENERAL ADMISSION POLICY

Johnston Community College operates under the open-door admission policy. Any high school graduate or non-graduate who is 18 years of age or older and can benefit by pursuing further education may be admitted to the College, provided the person makes application and completes the admission process.

It is the policy of Johnston Community College to encourage young people to complete their high school education before seeking admission to the College. Counseling and guidance are provided as a part of the admission process to help the applicant establish educational goals and select a program of study appropriate to the applicant's interests, aptitudes, and career objectives.

Applicants for admission are accepted (and placed in a program of study) based upon general admission standards. For certain programs of study, applicants are required to also meet specific program admission standards, as described in this section under the "Admission Standards" heading.

Under certain circumstances, an applicant who is a minor between the ages of 16 and 18 years of age may be considered a person with special needs and may be admitted to an appropriate program of study in accordance with policy established by the State Board of Education. Specific requirements applicable to minors are defined in this section under the "General Admission Policy" heading.

Admission policies and standards are established upon recommendation of the respective admissions committees and administration and approval of the Board of Trustees. The dean of student services is responsible for admission of curriculum students and administration of admission policies.

The College is a Service-members Opportunity College serving the voluntary higher education needs of military students.

Students with a felony conviction may have limited certification and employment opportunities.

ADMISSION STANDARDS

General admission standards for curriculum programs of study are as follows:

1. Age: Applicants for all general, technical, and vocational education programs, adult high school education, adult basic education, and continuing education courses must be at least 18 years of age or be a high school graduate. However, an applicant who is a minor between the ages of 16 and 18 years may be considered a student with special needs and may be admitted to an appropriate program of study in accordance with policy established by the State Board of Education. Specific requirements applicable to minors are defined in this section under the "General Admission Policy" heading. Students entering Basic Law Enforcement Training (BLET) must be at least 20 years of age.

2. Education: An applicant's general level of education should be sufficient to make possible reasonable progress in the program of study. Applicants for associate degree programs must be high school graduates or equivalent, as recognized by the state. The College will only recognize high school diplomas from regionally accredited schools or home schools registered with the state. Students not completing such a program must complete the GED or attain an Adult High School diploma through an accredited institution. However, consideration is given to others who demonstrate sufficient general education, motivation, and potential for making reasonable progress in a vocational education program through scores on an independently administered standardized achievement test.
Specific program admission standards are as follows:

1. Applicants for admission to the following programs are required to meet the above general admission standards in terms of age and education: Accounting; Advertising and Graphic Design; Air Conditioning, Heating, and Refrigeration Technology; Associate in Arts; Associate in Arts – Business Administration; Associate in Fine Arts – Music and Art; Associate in Science; Associate in Science – Biology and Biology Education; Bioprocess Technology; Business Administration; Computer Programming; Heavy Equipment and Transport Technology; Industrial Pharmaceutical Technology; Internet Technologies; Landscape Gardening; Machining Technology; Manufacturing Technology – Plastics; Medical Office Administration; Network Administration and Support; Office Systems Technology; Paralegal Technology; and Welding Technology. Specific program admission requirements are not applicable to the above programs of study.

2. **Allied Health Programs**: Students admitted to allied health programs (Associate Degree Nursing, Cardiovascular Sonography, Computed Tomography and Magnetic Resonance Imaging, Medical Assisting, Medical Sonography, Nuclear Medicine, Phlebotomy, Radiography, and Therapeutic Massage) will submit to criminal background checks and random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.

3. Specific program admission requirements in addition to age and education are applicable to the following programs of study:
   
   a. **Associate Degree Nursing**
      - Have attained a minimum grade of “C” on two science courses (biology and advanced biology, chemistry, or the equivalent). BIO 110, BIO 111 or BIO 112, or CHM 131 may be used to satisfy these requirements. One of these science courses must have been completed within the past five years in order to take BIO 165 at JCC.
      - Have attained a minimum grade of “C” on one course in algebra.
      - Must have met the JCC minimum requirements for ENG 111 and MAT 080.
      - Be interviewed by an admissions counselor.
      - Complete the HOBET Testing System for Nursing. Applicants may take the HOBET Test twice per academic year.
      - Submit evidence of satisfactory physical and emotional health required for participation in the Associate Degree Nursing program.
      - If accepted, attend a Nursing Orientation/CPR Healthcare Provider Certification session.
      - If admitted, will submit to criminal background checks and random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.
      - Applications must be received in the Student Services Office by March 1 of each year. A separate application is required to apply to the Associate Degree Nursing program.
      - Effective Fall 2006, accepted nursing applicants will be required to be Nurse Aide I certified prior to registration.
   
   b. **Basic Law Enforcement Technology**
      - Must have attained a minimum score of 53 on the reading placement test or have completed RED 080 with a grade of “C” or above.
      - Complete the personal history questionnaire.
      - Submit a copy of motor vehicle driver’s record and a copy of court record.
      - Meet minimum standards for law enforcement employment as contained in Chapter 9 of the Criminal Justice Education and Training Standards, North Carolina Administrative Code, Title 12.
      - Be interviewed by an admissions counselor.
   
   c. **Cardiovascular Sonography**
      - Application must be received in the Student Services Office by March 1 of each year. The College reserves the right to extend the application period when warranted. The Cardiovascular Sonography program begins in the fall semester of each year. Official transcripts from high school and all colleges attended must be on file to process the application. Must have a high school diploma or equivalency.
      - Have graduated or will graduate from a two-year or an accredited associate or bachelor’s degree allied health education program in nursing, radiography, medical sonography, respiratory therapy, paramedic, or physical therapy and be currently certified in his/her specialty before entering the Cardiovascular program. The applicant must have graduated or will graduate with a minimum of 2.50 GPA to be considered.
      - Be interviewed by an admissions counselor.
      - Complete a medical terminology class and be computer proficient.
      - Attend a mandatory orientation by the program director or designee.
      - Provide a letter of reference from the current program director of the graduate’s program. If employed, must provide letter of reference from employer.
      - The student must possess a valid CPR certification for two years. The CPR certification cannot lapse while
enrolled in the Cardiovascular Sonography program.
• Personal medical insurance and liability insurance must be in place before clinical assignment.
• The Student Medical Form (physical examination by a physician) is required prior to initial registration. Student must acknowledge physical as well as mental competence to be able to function in a busy health care environment.
• Applicants that have been dismissed from a cardiovascular sonography program will be referred to the Sonography Programs Student Handbook regarding dismissal and readmission policies.
• If admitted, will submit to a criminal background check and a random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.

d. Computed Tomography & Magnetic Resonance Imaging
• Must have high school diploma or equivalency that includes general physics, biological science, algebra, and communication skills coursework.
• Have graduated or will graduate from an accredited associate or bachelor’s degree Radiography program and be ARRT registered or registry eligible prior to entering the CT/MRI program.
• Be interviewed by the CT/MRI Committee.
• If accepted, the applicant must be computer proficient and CPR certified prior to registration.
• Provide a letter of reference from the program director of the graduate’s radiography program.
• Have a physical examination by a licensed practicing physician, indicating good physical and emotional health which must be completed by July 1 of entrance year and on the physical form provided by Johnston Community College.
• Applications to the CT/MRI program must be received in the Student Services Office by the last working day of March of each year. The CT/MRI program begins fall semester of each year. The college reserves the right to extend the application period when warranted.

e. Cosmetology
• Meet health standards specific to the occupation.
• Must have attained a minimum score of 53 on the reading placement test or have completed RED 080 with a grade of “C” or above.
• The Student Medical Form (physical examination by a physician) is required prior to initial registration.
• A cosmetology student transferring to the College from another cosmetology art school must complete at least 500 hours at Johnston Community College.

f. Criminal Justice Technology
• Complete the personal history questionnaire.
• Submit a copy of motor vehicle driver’s record and a copy of court record.
• Meet minimum standards for law enforcement employment as contained in Chapter 9 of the Criminal Justice Education and Training Standards, North Carolina Administrative Code, Title 12.
• Be interviewed by an admissions counselor.

g. Early Childhood Education
• Prior to the work experience assignment, the student shall furnish a statement, signed by a licensed physician, that indicates the student is emotionally and physically fit to care for children.
• An initial test showing each student to be free of active tuberculosis is required.
• In 1996, the General Assembly passed legislation requiring that all childcare providers receive a criminal history records check. All students prior to the work experience assignment must submit to the ECH director a Certified Criminal History Check from the Clerk of Superior Court’s Office and a completed fingerprint card for submission to the State Bureau of Investigation (SBI) for criminal history check. (Section 2700 of Subchapter 3U-Child Day Care Rules on Criminal Records Checks). Students with a felony conviction may have limited certification and employment opportunities and may not be able to complete the Early Childhood Associate degree.

h. Esthetics
• Meet health standards specific to the occupation.
• Must have attained a minimum score of 53 on the reading placement test or have completed RED 080 with a grade of “C” or above.
• The Student Medical Form (physical examination by a physician) is required prior to initial registration.

i. Medical Assisting
• Application deadline is May 1 of each year. The College reserves the right to extend the application period when warranted.
• Have graduated or will graduate from high school or equivalent before entering the program.
• Must have met the Johnston Community College minimum requirements for ENG 111 and have placed out of MAT 060.
• Be interviewed by an admissions counselor.
• Attend an information session conducted by the program director.
• Submit evidence of satisfactory physical and emotional health required for participation in the Medical Assisting program.
• If accepted, must be CPR Healthcare Provider certified.
• If admitted, will submit to criminal background checks and random drug screening as directed by...
affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.

- The national exam for medical assisting contains questions as to whether or not the applicant has ever been convicted of a misdemeanor/felony excluding minor traffic violations. If the answer is “Yes,” the applicant is asked to provide an explanation. This question is asked because of legal requirements for becoming certified as a medical assistant.

j. Medical Sonography
- Applications must be received in the Student Services Office by March 1 of each year. The College reserves the right to extend the application period when warranted. The Medical Sonography program begins in the fall semester of each year. Official transcripts from high school and all colleges attended must be on file to process the application. Must have a high school diploma or equivalency.
- Must currently be enrolled as a second level radiography student or have graduated from an accredited associate degree or bachelor’s degree radiography program with a minimum of 2.50 GPA and currently be ARRT certified or be ARRT certified before the first day of class.
- Be interviewed by an admissions counselor.
- Attend a mandatory orientation by the program director or designee.
- Provide a letter of reference from the current program director of the graduate’s radiography program. If employed, must provide reference from employer.
- The student must possess a valid CPR certification for two years. The CPR certification cannot lapse while enrolled in the Medical Sonography program.
- The Student Medical Form (physical examination by a physician) is required prior to initial registration. Students must acknowledge physical as well as mental competence to be able to function in a busy health care environment.
- Applicants that have been dismissed from a sonography program will be referred to the Sonography Programs Student Handbook regarding dismissal and readmission policies.
- If admitted, will submit to a criminal background check and a random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.

k. Nuclear Medicine Technology
- Applicants will start summer semester of the year they are applying to begin.
- Must have a high school diploma or equivalency that includes general physics, biological sciences, algebra, and communication skills coursework.
- Must currently be enrolled as a second level radiography student or have graduated from an accredited radiography program with a minimum of 2.50 GPA and be currently ARRT certified or be ARRT certified before the first day of class.
- Be interviewed by an admissions counselor.
- Attend an information session by the program director or designee.
- Provide a letter of reference from the current program director of the graduate’s radiography program. If employed, must provide reference from employer.
- The student must possess a valid CPR certification for two years. The CPR certification cannot lapse while enrolled in the Nuclear Medicine program.
- The Student Medical Form (physical examination by a physician) is required prior to initial registration. Students must acknowledge physical as well as mental competence to be able to function in a busy health care environment.
- Applicants that have been dismissed from a nuclear medicine program will be referred to the Nuclear Medicine Handbook regarding dismissal and readmission policies.
- If admitted, will submit to a criminal background check and a random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.

l. Phlebotomy
- Fifteen students will be admitted for the fall semester of each year on a first-come, first-served basis. Application deadline is June 1 of each year.
- The program is offered only in the evening.
- Have graduated or will graduate from high school or equivalent before entering the Phlebotomy program.
- Attain a minimum score of 70 on the reading placement test or have completed RED 090 with a grade of “C” or above.
- Be interviewed by an admissions counselor.
- Attend an information session presented by the pro-
gram director or department chair.
• Submit evidence of satisfactory physical and emotional health required for participation in the Phlebotomy program.
• Accepted students must have completed the related courses (CIS 111 and a psychology class) or have the flexibility of taking them during the day.
• If admitted, will submit to criminal background checks and random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.
• If accepted, must be CPR Healthcare Provider certified.

m. Radiography
• Have attained a minimum grade of “C” on two science courses (biology and advanced biology or chemistry or the equivalent, BIO 110, BIO 111 or BIO 112 or CHM 131 may be taken to satisfy these requirements). One of these science courses must have been taken within the past five years in order to take BIO 165 at Johnston Community College.
• Have attained a minimum grade of “C” on one course in Algebra I or II.
• Must have met the Johnston Community College minimum requirements for ENG 111 and MAT 080.
• Complete the HOBET Test for admission into the Radiography program. A fee is required for this test. Applicants are allowed to take the HOBET once per academic year.
• Attend a mandatory information session by the director of radiography.
• Be interviewed by an admissions counselor.
• The Student Medical Form (physical examination by a physician) is required prior to initial registration. Students must acknowledge physical as well as mental competence to be able to function in a busy health care environment.
• Personal medical insurance or student accident insurance and liability insurance must be in place before clinical assignment.
• If admitted, will submit to criminal background checks and random drug screening as directed by affiliating clinical agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete the program.
• If accepted, complete a medical terminology course and be CPR certified prior to registration.
• Applications must be received in the Student Services Office by March 1 of each year. There is a separate application to apply to the Radiography program.

n. Therapeutic Massage
• Submit an application to the Therapeutic Massage program by May 1 of each year. The College reserves the right to extend the application period when warranted.
• Must be a high school graduate or equivalent and 18 years of age.
• Meet the Johnston Community College requirements for ENG 111 and MAT 140.
• Be interviewed by an admissions counselor.
• Submit three professional references for academic and/or work performance.
• If admitted, will submit to criminal background checks and random drug screening as directed by affiliating clinical agencies.
• If accepted, must become CPR Healthcare Provider certified.
• Attend an information session by the faculty of the Therapeutic Massage program.
• Must experience two one-hour long massage therapy sessions and one energy work session. Massages must be approved by the Massage therapy faculty.
• The Student Medical Form (physical examination by a physician) is required prior to initial registration. Student must acknowledge physical as well as mental competence to be able to function in a busy health care environment.
• Students must supply their own books, linens, and accessories for hands-on massage therapy practice. Massage tables/chairs must be purchased by the end of the first month of classes. Cost of supplies and tables is approximately $400-$800 the first month.
• Pending approval fall 2006, BIO 165 & BIO 166 will be required in lieu of BIO 165.

o. Truck Driver Training
• A completed DOT Physical Examination Form and Commercial Drivers License permit.
• Have the state department of motor vehicles forward a copy of the applicant’s seven-year motor vehicle record.

Applied Technology certificate programs are conducted at units of the North Carolina Department of Correction. Regular admission procedures and requirements are not applicable. Inmate students are assigned training programs at various times throughout the year. Assignments are made through Department of Correction personnel. Programs offered include Cosmetology, Electrical/Electronic Technology, Electronic Servicing, Food Service Technology, Heating and Air Conditioning, Horticulture Technology, Manicuring Technology, Masonry, Office Systems Technology, and Plumbing.

A special certificate program, Greenhouse and Grounds Maintenance, is offered in conjunction with the Johnston County Mental Health Department. This program is designed to provide therapeutic training for students with emotional/mental handicaps. Students are referred to the program through the Johnston County Mental Health Department.
ADMISSION PROCEDURES

Application forms may be requested in person, or may be requested by telephone, fax, online, or in writing to:

Student Services
Johnston Community College
P.O. Box 2350
Smithfield, North Carolina 27577
Telephone: (919) 209-2128
Fax: (919) 989-7862
Web site: http://www.johnstoncc.edu

The application for admission and all transcripts of the applicant’s high school and previous post-secondary educational record should be submitted as soon as possible within one year prior to admission.

Applicants should complete the following steps:

1. Submit a complete application form.
2. Have all transcripts of secondary and post-secondary educational records mailed to the Admissions Office. All transcripts must be received before the application for admission can be processed.
3. Report as scheduled to the Admissions Office for placement testing (if needed), the admission interview, and/or processing. Applicants are notified when to report.

Accurate and complete information on the application form and supporting information is required. Applicants are notified when they have been accepted for admission and when to report for registration. Falsification, misrepresentation, or omission of information on the application may result in revocation of admission.

A student who desires to enter a particular program of study, but is not accepted to pursue that program, may be accepted for admission to an alternate program. This may involve admission to (1) another program of study, (2) developmental courses, (3) individualized programmed instruction, or (4) a combination of these approaches designed to help the student overcome academic limitations.

In certain instances when it is in the best interest of the student and is deemed educationally feasible, an applicant may be granted tentative acceptance for admission and be permitted to register without immediately meeting full admission requirements. Tentative acceptance for admission is valid for only one semester. During this semester, all pertinent admissions documents must be received and the student must complete all steps for full acceptance in order to register for the second semester.

Following receipt of the application for admission and all transcripts, the applicant is invited for placement testing (if needed) and an admission interview with a counselor and/or program director. The applicant and the counselor review the application, discuss the applicant’s career plans, and review program requirements.

The purpose of the admission interview is to provide information, clarify the applicant’s goals, and confirm educational career plans. The applicant is encouraged to consider the full range of educational programs and services available and to evaluate probability for success in relation to the individual’s educational preparation, interests, aptitudes, and career objectives. Placement tests are used to assess educational preparation in the areas of reading, grammar, composition, and mathematics. The tests are given for guidance in the admission and placement of students in programs.

Placement testing is not required of certificate program applicants in the Applied Technology Department except for Cosmetology, Esthetics, and Basic Law Enforcement.

Johnston Community College uses an online computerized placement test (CPT) called ACCUPLACER, which is produced by the College Board, New York. For those applicants who are not yet comfortable using a computer, a paper and pencil placement test called COMPANION may be used. These students should notify the Admissions Office prior to being scheduled for testing. Students with other special needs must make special testing arrangements with the Admissions Office staff.

The College accepts COMPASS and ASSET placement scores earned at another institution provided the scores are no more than one year old.

An SAT score of 450 verbal exempts an applicant from the reading and writing components and a 450 mathematics score exempts an applicant from the mathematics component of the placement test. An ACT composite score of 19 exempts an applicant from placement testing.

Some students may wish to retest immediately. In these cases, the counselor will determine whether or not the student is allowed to retest. Consideration will be given to performance in high school course work, any transfer credits from other post-secondary institutions, the length of time elapsed since the student took certain courses, possible learning disabilities, and whether the CPT score earned falls within the Standard Error of Measurement (SEM)*.

If, after consideration of the above conditions, the admitting counselor deems a retest is warranted, the counselor will issue the student an Authorization to Retest. The student must

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* CPT scores are reported in this format: a **raw score**, i.e., an estimate of the number of correct items out of a possible 120; a **percentile**, i.e., the student’s relative ranking as compared with the total number of test takers; and a **Standard Error of Measurement (SEM)**, which is the number of points plus or minus the raw score earned.”
present this authorization to the test scheduling staff in Student Services to be assigned another test date. Test date availability is not guaranteed, and is severely restricted during the two weeks immediately prior to registration. Students not granted an immediate retest may still retest after a wait of three months. Only one retest is allowed.

After retesting, if a student does not achieve the desired score, the student must take the developmental course(s) indicated by the higher score attained.

**READMISSION**

Applications for readmission of former students are received and processed by the Admissions Office. Students applying for readmission to a curriculum who have not attended for three or more consecutive semesters must enroll under the current College catalog.

Prior disciplinary records may be considered when students seek admission or readmission to the College. The College reserves the right to refuse admission to any student whose enrollment or continued presence is considered a risk for campus safety or a disruption of the educational process.

Decisions on applications for readmission may be appealed by the applicant to the Enrollment Management Committee or may be referred by the dean of student services to the Enrollment Management Committee.

**ADMISSION APPEALS**

Admission/readmission policies and standards are administered by the dean of student services. Appeals of application or admission decisions are heard by the Enrollment Management Committee. Appeals must be submitted to the chair or secretary of the Enrollment Management Committee in writing within 10 days following the date of the initial decision.

**ADMISSION TO CONTINUING EDUCATION COURSES**

Information regarding admission to Continuing Education courses may be found in the “Continuing Education” section of this catalog.

**PERSISTENCE AND GRADUATION RATES**

Information concerning persistence and graduation rates is available upon request from the Student Services Office, on the College’s Web site, in the Student Handbook, and in other publications.

**TRANSFER STUDENTS**

Applicants for admission as transfer students may be admitted and granted advanced standing based on acceptance of course work completed at other accredited colleges, universities, or postsecondary institutions. All courses for which transfer credit is possible are evaluated in terms of the curriculum to be pursued at the College. The application for admission and all transcripts must be received before an application can be processed. Johnston Community College transfer students are in good standing following evaluation of courses completed with a grade of “C” or better. Therefore, no transfer student is admitted either provisionally or on probation.

Course credits earned at other institutions will be accepted for transfer subject to the following conditions:

1. The course work must be applicable to the program of study the student desires to pursue.
2. A minimum grade of “C” or the equivalent must have been earned for a course to be considered for transfer.

**SPECIAL STUDENTS**

Persons who wish to take selected general education, technical, or applied technology curriculum courses to meet special educational needs may be admitted as special students. Special students are required to submit an application for admission as a special student, but are not required to meet regular admissions requirements. Special students may pursue up to 15 semester credit hours of selected course work for academic credit without being admitted to a specific program of study. A student who desires to earn additional academic credit must meet the regular admission requirements and be accepted for admission to a program of study in order to register for more than 15 credit hours of course work for credit purposes. A special student may apply for full admission to a program of study effective the following semester.

**DEVELOPMENTAL COURSES**

Developmental preparatory courses are offered to develop the basic skills essential for success in collegiate study. Specialized instruction is provided to meet individual needs.

It is the policy of the College that students who apply to pursue the college transfer program or a technical education program, but are deficient in the basic skills of reading, grammar, composition, and/or mathematics, are placed in appropriate developmental courses to remedy the deficiencies and strengthen their preparation to pursue further education.

Students who need to strengthen basic skills are required to successfully complete appropriate developmental preparatory courses.

**DISTANCE LEARNING**

Students enrolled in distance learning courses have access to the same services that traditional students enjoy. The College
These forms are provided by the college and should be furnished by each applicant. A signed financial resource statement is required of all applicants. This should be a detailed statement of the applicant’s financial situation, including the amount of money available per year, source of income, and any other pertinent information. The availability of funds sufficient to meet expenses for the first academic year must be certified. The inclusion of any false information constitutes grounds for dismissal from the College.

1. Application for Admission and Residence Status Application: These forms are provided by the college and should be completed and returned at least six months prior to the date of proposed admission to initiate the admission process.

2. Academic Records: A certified copy of the original educational records, to include all previous academic experiences, is required. If the original copy of this record is written in a foreign language, a certified English translation is required.

3. The Test of English as a Foreign Language (TOEFL): TOEFL scores are required of all applicants, except those from countries where English is the only official language, as evidence of adequate proficiency in English. The minimum acceptable TOEFL score is 550.

4. Placement and Testing Interview: Applicants must complete placement testing and personal interviews before they can be accepted for admission.

5. Financial Statement: A signed financial resource statement is required of all applicants. This should be a detailed statement of the applicant’s financial situation, including the amount of money available per year, source of income, and any other pertinent information. The availability of funds sufficient to meet expenses for the first academic year must be certified. The inclusion of any false information constitutes grounds for dismissal from the College.

6. Student Medical Form: A Student Medical Form, completed and signed by a physician, must be submitted on the form provided by the College. The student must have completed the hepatitis B series.

7. Responsibility Statement: Each applicant must furnish a certified statement from a United States citizen stating that the citizen agrees to accept responsibility for sponsoring and assisting the applicant as may become necessary for the applicant to pursue his/her educational objective.

Upon receipt of all above items, the applicant’s file will be presented to the Enrollment Management Committee for the admissions decision. The applicant will be informed by mail of the committee’s decision. Form I-20 A-B, Certificate of Eligibility, will be prepared on request from applicants who have been formally accepted for admission to the College.

INTERNATIONAL STUDENT ADMISSION POLICY

Johnston Community College has approval by the U.S. Immigration and Naturalization Service for attendance by international students. Application for admission should be made at least six months prior to the semester in which the applicant plans to enroll. International students are treated as nonresidents of the State of North Carolina with respect to tuition and fees. The College is unable to provide financial aid to international students; therefore, international students must have sufficient funds to cover all living expenses, tuition, and fees while attending the College. Student housing is not provided by the College. International students are expected to make their own arrangements for housing.

The following items are required for admission:

1. Application for Admission and Residence Status Application: These forms are provided by the college and should be completed and returned at least six months prior to the date of proposed admission to initiate the admission process.

2. Academic Records: A certified copy of the original educational records, to include all previous academic experiences, is required. If the original copy of this record is written in a foreign language, a certified English translation is required.

3. The Test of English as a Foreign Language (TOEFL): TOEFL scores are required of all applicants, except those from countries where English is the only official language, as evidence of adequate proficiency in English. The minimum acceptable TOEFL score is 550.

4. Placement and Testing Interview: Applicants must complete placement testing and personal interviews before they can be accepted for admission.

5. Financial Statement: A signed financial resource statement is required of all applicants. This should be a detailed statement of the applicant’s financial situation, including the amount of money available per year, source of income, and any other pertinent information. The availability of funds sufficient to meet expenses for the first academic year must be certified. The inclusion of any false information constitutes grounds for dismissal from the College.

6. Student Medical Form: A Student Medical Form, completed and signed by a physician, must be submitted on the form provided by the College. The student must have completed the hepatitis B series.

7. Responsibility Statement: Each applicant must furnish a certified statement from a United States citizen stating that the citizen agrees to accept responsibility for sponsoring and assisting the applicant as may become necessary for the applicant to pursue his/her educational objective.

TRANSFERRABILITY

Colleges and universities vary widely in transfer requirements for entrance into and completion of study in a major field. Students are advised to carefully study the catalogs of four-year institutions to which they are considering transfer. They should also consult an admissions representative as early as possible prior to application to determine transferability of courses already taken and those they plan to take.

Failure to satisfy prerequisites or basic skill requirement may seriously delay progress towards the completion of a baccalaureate degree.

HEALTH STANDARDS

Curriculum students are required to complete an individual student health questionnaire. For certain programs, students are required to secure a physical examination prior to initial registration.

Students should be in a sufficient state of health to successfully pursue the program of study chosen. Communicable disease or severe mental illness may prohibit approval to register for classes when health records indicate that attendance would be detrimental to the health and/or safety of the student or others with whom the student may come in contact while pursuing a program of study.

For certain specialized programs of study such as Associate Degree Nursing, Basic Law Enforcement Training, Cardiovascular Sonography, Computed Tomography and Magnetic Resonance Imaging, Cosmetology, Early Childhood Associate, Esthetics, Medical Assisting, Medical Sonography, Nuclear Medicine Technology, Phlebotomy, Radiography, and Therapeutic Massage, a Student Medical Form (physical examination by a physician) is required. Truck Driver Training requires a DOT Physical Examination form. For these programs, students are required to meet health standards specific to the occupation for which they are preparing. These are generally accepted standards of physical ability to perform the requirements of the program and to engage in educational and clinical experiences in such a way as not to endanger the student, other students, or
members of the public including patients, patrons, customers, minors, or other persons with whom the student will come in contact as a part of the educational program.

**REPORTABLE COMMUNICABLE DISEASE POLICY**

Students and employees of the College who may be infected with a reportable communicable disease, as defined by the North Carolina Division of Health Services, will not be excluded from enrollment or employment, or restricted in their access to college services or facilities unless medically-based judgments in individual cases establish that exclusion or restriction is necessary to the welfare of the individual, other members of the college community, or others associated with the instruction through clinical, intern, laboratory, or other such experiences, involving the general public. Persons who know or 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 in accordance with such knowledge for the protection of others.

Persons who know that they are infected are urged to share that information with the department chair or faculty advisor and the dean of student services so that the College can assist in the appropriate response to their health and educational needs. Such information will be disclosed only to responsible officials of the College on a strictly limited, need-to-know basis, unless the individual consents in writing to release of the information to others.
Johnston Community College, a member of the North Carolina Community College System, offers educational opportunities at low cost to the student. Tuition and fees are payable at the beginning of each semester. Tuition rates are established by the General Assembly of North Carolina. The activity and technology fees are set by the Board of Trustees in accordance with policy established by the State Board of Community Colleges. **Tuition and fees are subject to change without notice.** The cost of textbooks and supplies is an additional expense and varies with the program of study.

Students who have incurred indebtedness to the College, including unpaid bills and overdue book fines, will not be allowed to register until cleared by the appropriate official of the College.

**TUITION AND FEES**

Tuition and fees (activity and technology) payable by curriculum students who qualify as residents of the State of North Carolina for tuition purposes, are as follows (subject to change):

<table>
<thead>
<tr>
<th>CREDIT HOURS</th>
<th>TUITION</th>
<th>ACTIVITY FEE</th>
<th>TECHNOLOGY FEE</th>
<th>TOTAL</th>
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<tr>
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<td>$38.00</td>
<td>$15.00</td>
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For purposes of **financial aid**, a full-time student is defined as one who is registered for twelve or more semester hours of course work. A part-time student is one who is registered for less than twelve semester hours of course work.

A student is considered to be officially registered only after all tuition, fees, and other charges have been paid in full or acceptable arrangements for third party billing have been approved by the Business Office.

The rate of tuition charged for auditing a course is the same as the rate charged for taking the course for academic credit. Fees and regulations for courses taken through Continuing Education are listed in the “Continuing Education” section of this catalog.

**TUITION AND FEE EXEMPTION**

Senior citizens who are North Carolina residents and are 65 years of age or older are exempt from the payment of tuition, activity, and technology fees. Information concerning waiver of the registration fee applicable to certain continuing education courses is found in the “Continuing Education” section of this catalog.

**TUITION FOR NON-RESIDENTS**

Any student whose legal residence is outside of the State of North Carolina, or, in the case of students who are boarding or living with relatives in the community and whose parents or guardians live outside the state, and who do not otherwise qualify as residents for tuition purposes under General Statute 116-143.1, shall pay tuition and activity fee as follows (subject to change):

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RESIDENCE STATUS FOR TUITION PURPOSES

The tuition charge for students who qualify as residents of the State of North Carolina is less than the charge for non-resident students. To qualify for in-state tuition, as specified in General Statute 116-143.1, a legal resident must have maintained his/her domicile in North Carolina for at least the twelve months prior to his/her classification as a resident for tuition purposes. In order to be eligible for such classification, the individual must establish that his/her presence in the state during such twelve-month period was for purposes of maintaining a bona fide domicile, rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education. Further, (1) if the parents (or court-appointed legal guardian) of the individual seeking resident classification are bona fide domiciliaries of this state, this fact shall be prima facie evidence of domiciliary status of the individual applicant, and (2) if such parents or guardian are not bona fide domiciliaries of this state, this fact shall be prima facie evidence of non-domiciliary status of the individual.

The residency classification of a student, for purposes of applicable tuition rates, is required to be changed if, since original establishment of the student’s current classification, his/her state of legal residence has changed.

If a student claims eligibility, as a member of the armed forces or a dependant relative of such a member, to be charged the in-state tuition rate under G.S. 116-143.3, the student must submit the appropriate application prior to initial enrollment or reenrollment for which the student claims the tuition benefit. The student must also submit the application prior to each successive academic year of enrollment.

Regulations concerning the classification of students by residence for purposes of applicable tuition differentials are set forth in detail in A Manual To Assist The Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes. Copies of the manual are available and can be seen upon request in the college’s library.

Undocumented Immigrant

The College does admit undocumented immigrant applicants consistent with provisions of federal and state laws and regulations in Title 23 of the North Carolina Administrative Code. Undocumented immigrants do not qualify for in-state tuition or federal financial aid.

ACTIVITY FEE

The activity fee provides financial support for the student activities program, including student government, intercollegiate athletics, intramural recreation, student publications, social activities, student clubs and related activities, student insurance, student identification cards, parking permits, and other projects of benefit to students. The activity fee is non-refundable.

TECHNOLOGY FEE

The technology fee supports the procurement, operation, and repair of computer and other instructional technology, including the supplies and materials that support the technology. This permits the College to purchase computers and other technology, hire support positions to operate and maintain this technology, and buy the necessary supplies and materials for operations.

The technology fee is $1 per credit hour and is non-refundable.

CURRICULUM REFUND POLICY

Refunds shall be in accordance with the North Carolina Administrative Code and will be made only under the following circumstances:

1. A 100 percent tuition refund shall be made if the student officially withdraws prior to the first day of class of the academic semester as noted in the Academic Calendar. Also, a student is eligible for a 100 percent refund if the class in which the student is officially registered fails to “make” due to insufficient enrollment.

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

3. For classes beginning at times other than the first week (seven calendar days) of the semester, a 100 percent tuition refund shall be made if the student officially withdraws from the class prior to or on the official 10 percent point of the semester.

4. Technology and activity fees are non-refundable.

5. Where a student, having paid the required tuition for a semester, dies during the semester (prior to or on the last day of examinations of the College the student was attending), all tuition and fees for that semester may be refunded to the estate of the deceased.

To comply with applicable federal regulations regarding refunds, federal regulations shall supersede the state refund regulation stated in this rule.

TEXTBOOK AND OTHER EXPENSES

Textbook and other items are an additional expense for which the student should plan. The cost of textbooks varies with program of study, but the average cost is usually between $200 and $350 per semester for fulltime students.
BOOKSTORE REFUND POLICY

1. All returns should be made by the date posted in the Bookstore each semester.
2. In cases where a student drops or a course is canceled, a full refund shall be given if books are returned in original condition and accompanied by a drop form.
3. If a student purchases the wrong books, the student may return them for a refund or trade for correct books.
4. Books may be returned for full credit or exchanged if:
   a. accompanied by drop form and valid sales receipt;
   b. the book is in original condition free from markings or damage in any manner.
5. There will be a 10 percent restocking fee on returns that are not accompanied by a drop form or sales receipt and for packages that have been opened.
6. Books from prior semesters will not be accepted for refunds.
7. All refunds will be processed through the Business Office.
8. All refunds will be in the form of a check and will be mailed to the recipient.
9. No refund will be given on supplies.

OTHER FEES AND COSTS

It should be clearly understood by the student that in certain courses the student must also provide at his or her own expense certain items needed to perform practice work required in that course. Examples of such items are notebooks, uniforms, tools, cosmetology kits, and art supplies.

Students in health care programs are required to purchase uniforms and miscellaneous items that may cost approximately $200 depending on the program.

Advertising and Graphic Design students are required to purchase certain art supplies and materials constituting an additional expense to the student.

Cosmetology and Esthetics are required to purchase supply kits and uniforms constituting an additional expense to the student.

Therapeutic Massage students must supply books, linens, and accessories for hands-on massage therapy practice. Approximate cost of supplies, table, and chair is $1,000. The table and chair must be purchased during the first month of class.

Books, supplies, and other items may be purchased from the Bookstore. Hours of operation are published by the Bookstore.

INSURANCE

Student Accident Insurance

The Student Accident Insurance provides coverage to all registered and enrolled curriculum students for covered injuries sustained while the insured student is:

1. participating in activities sponsored or supervised by the school;
2. traveling during such activities as a member of a group in transportation furnished or arranged by the school; or
3. traveling directly to or from the insured’s home premises and the site of such activities. Johnston Community College is considered the “home premises.”

The cost of coverage for this insurance program is paid by the college using student activity funds.

For further information concerning effective/termination dates, definitions, accidental death and specific loss benefits, accident medical expense benefits, exclusions, and payment of claims, please refer to the North Carolina Community and Technical Colleges Student Accident Insurance brochure. These brochures are available in the Student Services Office.

To file a student accident insurance claim, the student must:

1. Obtain an Accident Report Form and insurance claim form from the Student Services Office within 30 days or as soon as reasonably possible. Employees of the College can access a copy of the Accident Report Form from the College Web site.
2. Complete both forms in entirety. If possible, have a faculty or staff member sign the Accident Report Form.
3. Return both forms to the secretary to the dean of student services in the Student Services Office.
4. Once medical bills are received, submit to the secretary to the dean of student services who will forward to the college’s insurance carrier for processing.

Professional Liability Insurance

Professional liability insurance is required for all students in health care programs before beginning clinical practice in assigned hospitals and nursing affiliates. The cost is approximately $15 per year.
The objectives of the student development program are to support the instructional program, respond to student needs, and foster institutional development. In response to the needs of students, the student development program assists students in defining their educational and career goals, developing self-direction as independent persons, solving problems that may be encountered, and achieving personal goals within the framework of the educational program of the College.

**COUNSELING SERVICES**

The counseling staff provides educational, vocational/career, and personal/social counseling services. Counseling is available for all prospective and current students.

Counselors are available to discuss admission requirements and curriculum programs offered at Johnston Community College. Prospective students meet with a counselor prior to admission to the College. During this meeting, the counselor and student will discuss admission requirements, the student’s program of study, and course placements. The counselor will also assign the student an advisor in his/her selected program of study.

Vocational/career counseling is available for students. Counselors can help students access their abilities, skills, interests, values, personalities, and personal goals to make educational and career decisions. Career interest inventories, personal preference inventories, and occupational information may be used to assist students. Information concerning career fields, occupations, employment trends, and job opportunities can be obtained in the JobLink Career Center.

In addition to educational and vocational/career counseling, counselors are available to assist students in working through personal and social concerns.

Students are encouraged to utilize counseling services at any point throughout their enrollment at the College. To make an appointment with a counselor, contact the Admissions and Counseling Office at (919) 209-2128.

**DISABILITY SERVICES**

The Disability Services Office helps adapt Johnston Community College’s general services to the individual and specialized needs of students who have special health conditions, disabilities, or limitations. Services are provided in accordance with Section 504 of the Rehabilitation Acts of 1973, as amended in 1998 in Part IV of the Workforce Investment Act, Perkins Vocational and Applied Technology Education Act of 1998, and the Americans with Disabilities Act of 1990. Our goal is to ensure all qualified students with equal opportunity and access to all programs and facilities.

**Steps the Student Should Take**

- Any student seeking reasonable accommodations must initiate contact with the disability services coordinator to request services. It is the student’s responsibility to identify themselves in a timely manner (at least 30 days prior to the beginning of classes). Information about a student’s disability is not collected in the admissions process. Subsequently, the information a student provides regarding a disability is strictly voluntary.

- All students requesting reasonable accommodations due to a disabling condition must provide the disability services coordinator with current documentation verifying a disability. Documentation submitted must be from a qualified professional and include a clear diagnostic statement, a description of the assessment tools used to render the diagnosis, and a statement reflecting the student’s current needs and level of functioning in an educational setting. All documentation and information regarding a student’s disability is kept confidential and separate from academic records. Questions pertaining to acceptable documentation may be directed to the disability services coordinator.

- Once disability verification documentation is received, each student must schedule an interview with the disability services coordinator. During this interview, discussion will take place about the requested accommodations as well as other resources available at Johnston Community College and in the community.

- Once a student is registered with the Disability Services Office, it is the student’s responsibility to request accommodations each semester and to maintain contact with the disability services coordinator regarding any changes.

More information may be obtained by contacting the Disability Services Office, at (919) 209-2120 or the Student Services Office at (919) 209-2128. The TTY telephone number is (919) 209-2154.

**STUDENT SUPPORT SERVICES**

Johnston Community College was selected as a federal grant recipient for the Student Support Services (SSS) program in September 2001. The SSS program provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students towards the successful completion of their post-secondary education.

The goal of the SSS program is to increase the college retention and graduation rates of its participants and facilitate the process of transition from one level of higher education to the next. Student Support Services helps low-income and first gen-
eration students stay in college until they earn their baccalaureate degree. Participants, who include disabled college students, receive tutoring, counseling, and other academic support.

FINANCIAL AID

It is the goal of the Financial Aid Office to provide all students with proven financial need the necessary funds to pay for educational expenses while attending the College.

The College financial aid program operates in accordance with the following policies and principles:

1. The purpose of financial aid is to supplement the resources of the student and family. The primary responsibility for financing education rests with the individual and the family according to income and ability to meet the student's educational expenses. The student is expected to share responsibility through savings and part-time employment, if necessary.

2. In considering a student for financial aid, the College considers the applicant's financial need and potential for success in accomplishing the educational goal.

3. Aid may be used for tuition and fees, books, room and board, travel, and personal expenses necessary to maintain the student in school.

4. For the purpose of financial aid, a full-time student is defined as one who is registered for twelve or more semester hours of course work or the equivalent. A part-time student is one who is registered for less than twelve semester hours of course work or the equivalent.

Financial Aid is awarded on an annual basis; therefore, the student must submit a new financial aid application each year.

Students who need assistance should apply to the Financial Aid Office located in the Wilson Building. Financial aid resources include:

1. Federal Pell Grant
   This is a federal assistance grant awarded to eligible undergraduate students who are enrolled in an eligible program. There are three ways to apply for a Pell Grant:
   • Use the web site www.fafsa.ed.gov to complete the Free Application for Federal Student Aid (FAFSA). The school code for Johnston Community College is 009336.
   • Come to the Financial Aid Office to receive a copy of the FAFSA or bring all the correct information and the Financial Aid Office will electronically process the FAFSA on Mondays only from 8:00 a.m. to 4:00 p.m. and 5:00 p.m. to 7:00 p.m. This service may not be available during registration or holidays.
   • Call 1 800 4 FED AID to request a copy of the FAFSA.

2. Federal Supplemental Educational Opportunity Grant
   This is a federal assistance grant awarded to eligible undergraduate students who have exceptional needs and are enrolled in an eligible program. Schools receive a limited amount of funds for the F-SEOG program; therefore, when the funds have been awarded, there will be no additional funds for the academic year.

3. Work-Study
   The College participates in the College Work-Study Program. Under this program, a variety of part-time jobs are available on campus for eligible students.

4. North Carolina Student Incentive Grant
   The purpose of the North Carolina Student Incentive Grant program is to provide grants to legal residents of North Carolina who qualify. To be eligible to receive the grant a student must:
   • be a legal resident of North Carolina
   • demonstrate substantial financial need
   • be a full-time student
   • maintain satisfactory progress toward the completion of his/her program of study

   Each applicant is also required to apply for a Federal Pell Grant. NCSIG eligibility and grant awards are determined by College Foundation, Inc. based on data from the Federal Student Aid Report. The deadline is March 15.

5. North Carolina Community College Grant
   The North Carolina Community College Grant is a need-based grant established by the N.C. Legislature to provide funds to help meet the educational cost of North Carolina residents attending community colleges. Students must complete the FAFSA by the published deadline and list a North Carolina Community College as one of the top three choices of institutions. The North Carolina State Education Assistance Authority in conjunction with College Foundation of North Carolina administers this program. To be eligible:
   • The student must be a North Carolina resident enrolled at least half-time in an eligible program.
   • The student must be meeting the Satisfactory Academic Progress requirements and the Pell eligibility requirements except for the expected family contribution requirement established by the federal government.
   • The student with a bachelor's degree is ineligible.

6. Scholarships
   Annual scholarships are provided each year by various organizations and individuals. The College also cooperates with a number of agencies and organizations for other types of assistance. For specific information about scholarships or grants, contact the Financial Aid Office.

7. Nurse Education Scholarship Loan Program
   Scholarship/Loan funds are available to students who are enrolled at least half-time in the Associate Degree or Practical Nursing program. Other eligibility criteria are:
• North Carolina resident.
• Demonstrated financial need as determined by the Federal Student Aid Application Form.
• Execution of a loan note with the North Carolina State Education Assistance Authority to practice full-time as a registered nurse or licensed practical nurse in North Carolina following completion of the program.

The minimum scholarship/loan is $400 per academic year. However, the award is determined by the number of applicants and amount of available funding. Selection is based on academic merit and financial need. Cancellation and repayment provisions apply as stated in the Nurse Education Scholarship Loan Program guidelines.

8. **Nurse Scholars Program**

Nurse Scholars nominations are made by the Health Education Department by April 1 of each academic year. Nurse Scholars are selected by the North Carolina Nurse Scholars Commission. The commission selects recipients on the basis of academic performance, evidence of leadership, extracurricular participation, and the promise of service as a registered nurse in North Carolina. Applicants must have earned a 3.0 grade point average on a 4.0 scale in high school, or on 12 semester or 18 quarter hours of previous college work. Other eligibility criteria include:

- North Carolina resident.
- Execution of a loan note with the North Carolina State Education Assistance Authority to practice full-time as a registered nurse in North Carolina following completion of the Associate Degree Nursing program.
- Full-time enrollment in the Associate Degree Nursing program.

Financial need is not one of the eligibility criteria. The scholarship/loan may be repaid through full-time practice as a registered nurse in North Carolina. Cancellation and repayment provisions stated in the Nurse Scholarship/Loan program also apply to the Nurse Scholars Program. The value of the Nurse Scholar/Loan is $3,000 per academic year.

9. **Federal Family Education Loan Program**

This program includes the Federal Stafford Loans (subsidized and unsubsidized) and Federal PLUS Loans to parents. A subsidized loan means that the borrower is eligible for federal interest benefits and the interest on the loan is paid by the federal government while the borrower is enrolled and attending college. An unsubsidized loan means that the borrower must pay the interest while attending college. Repayment and deferment provisions are reviewed with the prospective borrower at the time the loan application is completed.

To apply, an application for Federal Student Aid must be completed. The report is used to determine Federal Pell Grant eligibility which must be done before applying for the Stafford Loan. The report is also used to determine eligibility or ineligibility for the interest subsidy.

Applications for the student loans described are available in the Financial Aid Office. Only one loan application per student will be processed for each award year. The preferred lender for Johnston Community College is College Foundation, Inc. (CFI) and the loans are guaranteed by the N.C. State Education Assistance Authority. Students must be enrolled at least half-time to apply for a Stafford Loan and must pass a credit check by the lender.

**Federal Stafford/Federal Unsubsidized Stafford Loans.** The amount students may borrow will be determined by a number of factors, including whether they are first-year or second-year students, whether they are dependent or independent students, and whether or not they have unmet financial need.

The Financial Aid Office will mail an award letter explaining the award amount, Satisfactory Academic Progress policy, and dates of disbursement to each eligible aid recipient.

For further information, contact the Financial Aid Office at (919) 209-2036.

**SATISFACTORY ACADEMIC PROGRESS**

Each student enrolled in an eligible program and receiving financial aid is expected to make satisfactory academic progress toward completion requirements for the program. At the end of the semester, the student’s cumulative grade point average is computed. This measure of progress toward graduation is indicated on the student’s semester grade report and is reviewed by the College.

To be in satisfactory academic standing, a student must maintain at least a 2.0 cumulative grade point average related to the number of credit hours attempted. When the student’s GPA is computed, all courses attempted at Johnston Community College are included in the total hours attempted except remedial, WD, I, NA, CR, AU, and repeated course work (lower grade).

Students who are receiving Title IV Federal Student Financial Aid benefits and who have been on academic probation for at least two consecutive semesters and have completed at least 24 credit hours of study will be terminated from receiving financial aid.

In addition, a student must pass at least 67 percent of the credit hours attempted each year as determined by a review of the student’s academic record following completion of the summer semester of each year. Exception: All diploma and certificate programs must be reviewed at the end of each semester for the 67 percent rule. All courses attempted at Johnston Community College are included in the 67 percent calculation. This includes A, B, C, D, F, I, WF, WD, CR, AU, NA, I, repeated courses and high school. There is no academic probation period for the 67 percent rule.
The time frame for a student to complete his/her program of study cannot exceed 150 percent of the published length of the program. This 150 percent limit will be measured by all attempted credit hours. Transfer credits are included in the 150 percent calculation; however, remedial courses are not included. There is no academic probation period for the 150 percent rule. For example, if a program has 121 credit hours, the student may only attempt 181.5 credit hours before becoming ineligible to receive Title IV funds.

Other

1. Johnston Community College’s Forgiveness Policy does not apply for financial aid purposes.
2. Financial aid (Title IV) will be limited to 30 credit hours of developmental courses.
3. No financial aid (Title IV) will be awarded for AU (Audit) grades and NA (Never Attends).
4. Once financial aid is terminated, students become ineligible for aid until their progress is again satisfactory. It is the responsibility of the student to notify the Financial Aid Office when this has been accomplished.
5. A student who has become ineligible for financial aid has the opportunity to appeal. Appeals generally given consideration involve students who have experienced: (a) extended illness or hospitalization of the student, (b) an accident which incapacitates the student for an extended period of time, and (c) death or extended illness of an immediate family member which results in greater family responsibilities for the student. The appeal must be in writing and submitted along with proper documentation to the Financial Aid Office. If the student disagrees with the decision, he/she may appeal in writing to the dean of student services.

Verification Policy

1. The college verifies all eligible applicants selected by the Department of Education.
2. The financial aid officer completes verification at the time the student’s award is made.
3. Financial aid awards are not disbursed until verification is complete.

Return of Title IV Funds (R2T4) Policy

If a student completely withdraws from all classes in a semester, he/she is required to repay the funds for the time he/she has not attended class. Failure to make payment will result in the student being reported to the Department of Education and a collection agency. This action will also interrupt future financial aid awards.

VETERANS SERVICES AND CERTIFICATION

The College provides services to students in conjunction with the Veterans Administration and the North Carolina Department of Veterans Affairs to assist military service veterans and eligible person in securing veterans educational benefits. Veterans are provided admissions counseling and guidance in the selection of an educational program. Eligible wives, widows, and children of disabled or deceased veterans are also assisted.

For information and application forms, students should contact the veterans affairs officer in the Financial Aid Office located in the Wilson Building.

Satisfactory academic progress of students is determined by the individual’s cumulative grade point average, as defined in the “Academic Services and Procedures” section of this catalog under the “Academic Progress” heading. When a veteran or eligible person has failed to make satisfactory academic progress and has been on academic probation for at least two consecutive semesters without achieving satisfactory progress and has completed at least 24 credit hours of study, the enrollment of the veteran or eligible person is decertified to the Department of Veterans Affairs (DVA) in accordance with DVA regulations. The action leads to termination of veterans educational benefits by the Department of Veterans Affairs.

The College is required under DVA regulations to decertify the enrollment of veterans or eligible persons whose cumulative grade point average indicates that adequate progress is not being made toward meeting graduation requirements.

It should be clearly understood that the veteran or eligible person is not suspended from the College when decertification occurs and veterans’ educational benefits are terminated. The student is advised to remain in school and make every effort to attain satisfactory academic progress as soon as possible.

At the end of each semester, the student’s grade point average for the semester and cumulative grade point average are examined.

To be recertified for veterans’ educational benefits, the veteran or eligible person must bring his/her cumulative grade point average up to the standard of satisfactory academic progress as defined in the “Academic Services and Procedures” section of this catalog under the “Academic Progress” heading. When the student has attained satisfactory academic progress, the student’s enrollment will be recertified to the Department of Veterans Affairs for educational benefits.

Transfer credit hours are not included in computing a veteran’s academic grade point average (GPA) in his or her program at the College. However, for purposes of determining the veteran’s progress toward graduation as this relates to certification for DVA educational benefits, credit hours transferred are included in determining the GPA required to meet minimum standards of academic progress toward graduation. Accord-
HEALTH SERVICES

Student health services are not provided on campus. Students are expected to secure health services from their family physician, the Emergency Room at Johnston Memorial Hospital in Smithfield, or other area health service facilities.

In the event of accident or illness, the Student Services Office or the Business Office should be notified immediately. First aid is provided by college personnel in accordance with their capabilities. First aid kits are strategically located in the various campus buildings.

Students who become ill, are injured, or develop health problems requiring professional attention are referred to the Emergency Room of Johnston Memorial Hospital or to a local physician in accordance with the instructions given by the students or the student’s family. In an emergency situation when immediate attention is necessary, the local rescue squad will be called. A student may be taken directly to Johnston Memorial Hospital to be seen by the physician on duty in the Emergency Room.

Students who have significant health conditions or limitations are expected to inform instructors at the beginning of each semester and may be required to submit a Report of Health Evaluation conducted by a physician. When deemed appropriate, faculty advisors, instructors, and/or counselors are notified of students identified as having significant health conditions.

The environmental health and safety program on the campus is under the direction of the dean of administrative, fiscal and personnel services.

DRUG AND ALCOHOL POLICY

It is the policy of Johnston Community College that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance or alcohol is prohibited while in the workplace, on college premises, or as part of any college sponsored activities. Any employee or student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution. The specifics of this policy are as follows:

1. Johnston Community College does not differentiate between drug users, drug pushers, or sellers. Any employee or student who possesses, uses, sells, gives, or in any way transfers a controlled substance to another person, or manufactures a controlled substance while in the workplace, on college premises, or as part of any college sponsored activity, will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution.

2. The term “controlled substance” means any drug listed in 21 CFR Part 1308 and other federal regulations, as well as those listed in Article V, Chapter 90 of the North Carolina General Statutes. Generally, these are drugs having a high potential for abuse. Such drugs include, but are not limited to heroin, marijuana, cocaine, PCP, and crack. They also include “legal drugs” which are not prescribed by a licensed physician.

3. If any employee or student is convicted of violating any criminal drug statute while in the workplace, on college premises, or as part of any college sponsored activity, he or she will be subject to disciplinary action up to and including termination or expulsion. Alternatively, the College may require the employee or student to successfully finish a drug abuse program sponsored by an approved private or governmental institution as precondition for continued employment or enrollment at the college.

4. Each employee or student is required to inform the College in writing within five days after he or she is convicted for violation of any federal, state, or local criminal drug statute where such violation occurred while in the workplace, on college premises, or as part of any college sponsored activity. A conviction means a finding of guilty (including a plea of nolo contendere) or the imposition of a sentence by a judge or jury in any federal or state court.

5. Convictions of employees working under federal grants for violating drug laws in the workplace, on college premises, or as part of any college sponsored activity, shall be reported to the appropriate federal agency. The compliance officer must notify the U. S. government agency, with which the grant was made, within 10 days after receiving notice from the employee or otherwise receive actual notice of a violation of a criminal drug statute occurring in the workplace. The
College shall take appropriate disciplinary action within 30 calendar days from receipt of notice. As a condition of further employment on any federal government grant, the law requires all employees to abide by the policy.

6. Any employee or student who unlawfully possesses, uses, sells, or transfers alcoholic beverages to another person while in the workplace, on college premises, or as part of any college sponsored activity, will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution.

7. If an employee or student is convicted of violating any alcoholic beverage control statute while in the workplace, on college premises, or as part of any college sponsored activity, he or she will be subject to disciplinary action up to and including termination or expulsion. Alternatively, the college may require the employee or student to successfully finish a drug abuse program sponsored by an approved private or governmental institution as precondition for continued employment or enrollment at the college.

8. The term alcoholic beverage includes beer, wine, whiskey, and any other beverage listed in Chapter 18B of General Statutes of North Carolina.

9. Each employee or student is required to inform the College, in writing, within five days after he or she is convicted of any alcoholic beverage control statute where such violation occurred while in the workplace, on college premises, or as part of any college sponsored activity.

Students employed under the College Work-Study Program are considered to be employees of the College, if the work is performed for the college in which the student is enrolled. For work performed for a federal, state, local public agency, a private nonprofit, or a private for-profit agency, students are considered to be employees of the College unless the agreement between the College and the organization specifies that the organization is considered to be the employer.

**JOB PLACEMENT SERVICES**

**JobLink Career Center**

The Johnston County JobLink Career Center, located on the campus of Johnston Community College, is chartered by the Capital Area Workforce Development Board and offers the following services to all students and graduates:

- **JobLink Resources and Online Electronic Services.** Make job searches easier using job listings from across the state and nation, learn about services provided throughout the community, find out about training opportunities and financial support to enhance education, create an effective resume, learn successful interviewing techniques, access current labor market information, and learn more about what employers expect from their employees.
- **Job Search Assistance.** Take part in job seeking workshops and seminars, organize the job search, and receive help filling out job applications and basic job search assistance. Job seekers may also file for unemployment insurance benefits at designated times.
- **Career Development and Counseling Services.** Find out what careers best match interests and abilities, take advantage of career guidance and counseling; and learn more about education and training options that lead to employment.
- **Training/Educational Information Assistance.** Learn about educational programs and training opportunities and find out who is eligible for financial assistance through partner programs and how to apply.
- **Support Services.** Gain the latest information on resources available for childcare, domestic assistance, and transportation.
- **Specialized Services.** Participate in programs and services tailored to meet the special needs of individuals, including disabled and dislocated workers, veterans, older workers, and economically disadvantaged persons.

The following services are available for employers:

- **Recruitment Assistance.** Place job orders that will be distributed to all partner agencies, use JobLink space to conduct interviews with job candidates.
- **Labor Market Information.** Increase knowledge of important labor market issues.
- **Outplacement Assistance.** Tap new resources for managing transitions in the workplace, including reorganizations or downsizings.
- **Education and Training Resources.** Discover the best sources for meeting the skills requirement of your employees, find out about education and training for your present workforce and new hires, and take part in designing and implementing customized training to meet the needs of your business or industry.

**PRESCHOOL SERVICES**

The Johnston Community College Preschool is open to the public, but placement preference may be given to students, faculty, and staff of the College. Services will be provided to children three to five years of age during the day. The preschool is an instructional laboratory preschool for the JCC Early Childhood Associate program.
STUDENT HOUSING

Housing for students is not provided on campus. Most members of the student body live in the area and commute to the campus. Although student housing services are not provided, students who seek housing in the local area are referred to area real estate agencies and citizens who have indicated an interest in renting to students. Such referrals are made on a non-discriminatory basis.

STUDENT RECORDS

Upon receipt of the application for admission from a prospective student, a student record file is established by the Admissions Office. It is the policy of the College that this student record file shall be used throughout the student’s enrollment to collect and maintain pertinent basic data relative to the individual’s admission and academic progress.

The contents of the student record file are as follows: application for admission, transcripts of the student’s previous educational records, placement test results, summaries of admissions and academic progress interviews, medical history records, residency questionnaire, and correspondence related to admission and academic progress. The contents of the student record file are the property of Johnston Community College and are maintained in accordance with the Family Educational Rights and Privacy Act of 1974.

TRANSCRIPTS

Upon written request of the student, an official transcript of a student’s educational record will be provided by the Registrar’s Office to the student or to other institutions, individuals, firms, or agencies. There is no charge for the first transcript. Additional transcripts are $1 each. A 24-hour notice is required for preparation of transcripts. Transcripts are not released until all financial obligations to the College have been paid in full and the student’s account is cleared with the Business Office.

STUDENT RIGHT TO KNOW ACT

The Student Right to Know Act requires Johnston Community College to disclose information about graduation, completion, and transfer-out rates to current and prospective students and the public. This information is provided to students and prospective students in the Student Handbook, through the College Web site, mailings to students, and through other publications.

EDUCATIONAL RIGHTS AND PRIVACY

Johnston Community College recognizes the rights and privileges afforded each student under Public Law 93-380, entitled the Family Educational Rights and Privacy Act of 1974, and is in compliance with the provisions of the Act. The statute governs access to records maintained by educational institutions and the release of such records. In brief, the statute requires:

A. That the College must provide student access to official records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate;

B. That the College must obtain the written consent of the student before releasing personal identifiable data about the student from records.

The student’s record may not be revealed to any party without written consent from the student except in the following cases:

- Faculty members or administrators at Johnston Community College may have access to a student’s academic record if they can demonstrate justification.
- Release of student information to local, state, or investigative/law enforcement agencies will be permitted only to those designated by law.
- A duly authorized representative of the College may release student information which is specifically requested to lawyers for the plaintiff and defendant upon subpoena issued by proper court authorities.
- Names and academic records of those students who graduated the previous spring may be forwarded to their respective high schools for statistical purposes.

In compliance with the Family Educational Rights and Privacy Act, certain directory information may be released for currently enrolled students. This directory information will only be released exercising extreme caution, so as not to cause harm to students. If students wish not to have this information released, they must make the request in writing each academic year. This request must be filed with the Registrar’s Office.

Further information concerning student records and institutional policies for the implementation of the Family Educational Rights and Privacy Act of 1974 is available in the Student Services Office.
The student body of the College is similar in many respects to a cross section of the adult population in the local area, from which most of the members of the student body come. In varying degrees student life typically centers around four major areas of interests: formal course work as a community college student; home, family, and community commitments; employment obligations for those who hold part-time or full-time jobs; and cocurricular student activities.

Cocurricular activities are organized by students in response to student interests and needs and are recognized as a significant dimension of the educational experience. In addition to student government, cocurricular activities typically consist of athletic activities, cookouts, student clubs and organizations, social events, and other activities.

Cocurricular activities provide additional learning experiences beyond the formal classroom setting for all who choose to become involved. These experiences include development of leadership skills through participation in student organizations and working together with fellow students on social, recreational, and community service projects.

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association exists to promote good relations and understanding among students, administration, faculty, and trustees; to unify the student body in the development of self-government and good citizenship; and to set high ethical standards for students through responsible conduct.

The SGA is the primary campus student organization. Duly constituted to represent the interest of students, the SGA gives direction to student life beyond the classroom. It is responsible for developing and administering the annual Student Activities Fund Budget that supports the student activities program.

JOHNSTON COMMUNITY COLLEGE

STUDENT GOVERNMENT

ASSOCIATION CONSTITUTION

Preamble

We, the students of Johnston Community college, in order to promote good relationships and understanding among the students, administration, faculty, and trustees; to unify the student body in the development of self government and good citizenship; and to set a high level of standards for our school through responsible conduct, do hereby establish this Constitution for the government of students of Johnston Community College.

Article I. Name

Section 1.

This organization shall be known as the Johnston Community College Student Government Association.

Article II. Membership

Section 1.

The membership of the Association shall consist of all curriculum students who are registered for nine or more hours of instruction and all other duly registered curriculum or continuing education students who elect to join by paying the appropriate student activity fee.

Article III. Executive Branch

Section 1.

The Executive Branch shall be composed of six executive officers and an Executive Council made up of the executive officers and the chairpersons of all standing committees.

Section 2.

The executive officers of the Association shall be the President, Vice President, Secretary, Assistant Secretary, Treasurer, and Parliamentarian, each of whom shall be elected by a simple majority of the members of the Association voting in a general election held annually in the Spring Semester.

The requirements for being elected to an executive office and continuing to hold that office throughout the term of office shall be as follows:

1. Be a full-time curriculum student.
2. Be in good standing academically and otherwise.
3. Be enrolled as a full-time curriculum student for at least one semester prior to nomination

A. The term of office for all executive officers shall be one year beginning with their election in the Spring Semester and ending in the following Semester when the officers for the next year take the oath of office.

B. The duties of the Office of President shall be as follows:
1. To administer and uphold the Constitution of the Association, its by laws, and laws enacted by the Senate.
2. To call and preside at meetings of the Executive Council, the Senate, and the student body.
3. To nominate chairpersons and members of all standing committees whose names then are submitted to the Senate for approval.
4. To appoint any additional committees necessary to carry out executive functions, subject to approval of the Senate.
5. To issue orders to all committees and to require reports from them.
6. To serve as a member of the College Board of Trustees, as provided for in the North Carolina General Statutes 115D.
7. To represent the Student body by serving as a member of the College Advisory Counsel.
8. To be the official representative of the College on all other occasions and at functions wherein participation is appropriate.

C. The duties of the Office of Vice President shall be as follows:
1. To assist the President in any way required by the President.
2. To fulfill the duties of the President in the case of illness or absence of the President.
3. To assume the Office of President and to carry out the duties of the office for the remainder of the term in the event that the President resigns or is unable to fulfill the duties of the office for any reason.
4. To serve as Chief Justice of the Judicial Branch and to preside over all meetings and court sessions of the Judicial Branch.

D. The duties of the Office of Secretary shall be as follows:
1. To accurately record and preserve the minutes of all regular and special meetings of the Association.
2. To be in charge of all necessary paperwork required by the executive officers, the Executive Council, and the Senate.
3. To submit periodic reports to the membership or the Association, the Advisor, and the College concerning the progress and actions taken by the Association.
4. To prepare and keep a record of all actions, bylaws, statutes, and resolutions of the Senate.

E. The duties of the Office of Assistant Secretary shall be as follows:
1. To assist the Secretary in any way required by the Secretary.
2. To fulfill the duties of the Secretary in the case of illness or absence of the Secretary.
3. Assume the Office of Secretary and to serve for the remainder of term in the event that the Secretary resigns or is unable to fulfill the duties of the office for any reason.

F. The duties of the Office of Treasurer shall be as follows:
1. To keep an accurate record of financial actions of the Association based on financial reports prepared monthly by the College Business Office.
2. To serve as Chairperson of the Finance Committee which is responsible for submitting budget recommendations.
3. To report periodically to the Association or at any time required.
4. To prepare and submit to the Association an annual financial report.

G. The duties of the Office of Parliamentarian shall be as follows:
1. To assist the President in maintaining order in accordance with parliamentary procedure at meetings of the Senate, the Association, and the student body.
2. To serve as advisor to the President and the Executive Council on matters involving parliamentary procedure.

Section 3.
The Executive Council shall consist of the six elected executive officers and the appointed chairpersons of the standing committees named in Article VII.

A. The duties of the Executive Council shall be as follows:
1. To propose legislation to be brought before the Senate. Members of the Senate may also propose legislation.
2. To hear reports from and to consult with chairpersons of committees concerning proposals, plans, progress, activities of committees.
3. To nominate candidates for the Office of Justice for election by the Senate to serve as members of the Judicial Branch.
4. To appoint students to serve on College advisory committees.

B. The Executive Council shall meet once every two weeks for the purpose of conducting business. Special meetings may be called by the President, Vice-President in the absence of the President or by a majority of the members of the Executive Council.

Article IV. Legislative Branch

Section 1.
The Legislative Branch shall consist of a Senate composed of the six elected executive officers and those students elected to serve as senators to represent the students enrolled in the various degree, diploma, and certificate curriculum programs operation on campus.

Section 2.
There shall be two senators elected from each program, one white and one non-white wherever possible, to represent the members of the student body in the Senate. Additional senators shall be elected from each program on the basis of one for each twenty (20) students, or major fraction thereof, above the first twenty (20) students in that program.

Section 3.
The Senate shall hold one regular meeting each month. Special meetings may be called by the President, Vice President in the absence of the President, or by a majority of the members of the Executive Council. A quorum of three executive officers and seven senators is required to conduct official business.
Section 4.
The Senate shall have the following legislative powers and duties:

A. To conduct student government business by passage of motions by a simple majority vote of the members present at duly constituted meetings of the Senate.

B. To formulate and approve the annual budget of the Student Activity Fund.

C. To approve amendments to the annual Student Activity Fund Budget, as may be necessary from time to time during the year.

D. To authorize, appropriate, and approve the expenditure of available contingency funds included in the budget.

E. To appropriate funds from the Student Activities Fund for the following purposes:
   1. Student publications.
   3. Extra-curricular activities conducted by the Student Government Association.

F. To approve or reject by a majority vote all appointments made by the President of the Association.

G. To establish laws governing student government by passage of legislative acts by a two-thirds majority vote of the members of the state.

H. To approve rules and regulations governing the conduct of all elections.

I. To formulate articles of impeachment, to conduct impeachment proceedings, and to remove from office any elected student government official duly impeached for failure to fulfill the duties of the office held. All actions of any kind dealing with impeachment of elected officials shall be subject to a two-thirds majority vote of the Senate.

J. To remove and replace any committee chairperson or member who is found to have failed to fulfill assigned duties.

K. To require reports from all committees and other organizations subject to control by the Association.

L. To initiate official actions deemed necessary and proper to promote the general welfare of the student body.

M. To elect a President and Vice President to fulfill the regular term of office should both offices become vacant at the same time.

N. To elect a Vice President, Secretary, Assistant Secretary, Treasury, or Parliamentarian to complete the term of office should any of these offices become vacant during a regular term of office.

O. To elect by a simple majority vote the justices nominated by the Executive Council.

Article V. Judicial Branch

Section 1.
The powers of the Judicial branch shall be to interpret the Student Government Constitution and legislative acts when called upon to do so and to investigate and try cases brought before it involving student violations of the Code of Student Conduct.

Section 2.
The Judicial Branch shall consist of seven (7) members made up of a Chief Justice and six Justices.

Section 3.
The Vice-President of the Student Government Association shall serve as Chief Justice and shall preside over the Student Court. He shall have no voting power unless the Court is equally divided. There shall be three second-year students from two-year programs, two first-year students from two-year programs, and two students from one-year programs.

Section 4.
The Justices shall be nominated by the Executive Council and elected by a simple majority vote of the Senate. Nominees may hold no other office in the Association. All unexpired terms of office will be filled by a simple majority vote of the Senate.

Section 5.
Sessions of the Student Court shall require that the Chief Justice and at least four of the six Justices be present before the Court can convene.

Section 6.
All decisions of the Student Court shall be reached by a simple majority vote of the Justices present. All decisions of the Judicial Branch shall be subject to review by the College Administrative Council with the President of the College presiding. The findings and recommendations of the Judicial Branch shall be reported to the President of the College.

Section 7.
A Clerk of the Student Court, appointed by the Chief Justice, shall keep accurate records of all cases coming before the Student Court.

Article VI. Elections

Section 1.
Standing committees shall be established to perform specific functions of student government. The following standing committees shall be appointed by the Senate to perform functions in the area indicated: (1) Elections, (2) Social, (3) Student Activities, (4) Finance, (5) Constitution, and (6) Evening Student Relations.
Section 2.
Each standing committee shall meet three times per year or more frequently as necessary to carry out the duties of the committee. Committees shall present all proposals to the Senate for approval by the Senate.

Article VII. Standing Committees
Section 1.
Standing committees shall be established to perform specific functions of student government. The following standing committees shall be appointed by the Senate to perform functions in the areas indicated: (1) Elections, (2) Social, (3) Student Activities, (4) Finance, (5) Constitution, and (6) Evening Student Relations.

Section 2.
Each standing committee shall meet three times per year or more frequently as necessary to carry out the duties of the committee. Committees shall present all proposals to the Senate for approval by the Senate.

Article VIII. Amendments
Section 1.
Proposed amendments to this Constitution shall be submitted to the Senate for initial consideration. In order for a proposed amendment to be submitted to the membership for approval, the proposed amendment must first receive a two thirds affirmative vote of the members of the Senate. Proposed amendments must then be approved by an affirmative vote of a simple majority of the eligible members voting in a general student body referendum which must be announced at least two weeks prior to the date of the referendum.

Article IX. Ratification
Section 1.
An amendment shall become part of this Constitution immediately upon ratification by the Senate following the referendum. An affirmative vote by a simple majority of the Senate shall constitute ratification of any amendment previously approved by a majority of the voters in a general student body referendum.

Article X. Approval
Section 1.
Constitutional amendments, legislative acts, motions, rules, regulations, and other actions passed by the Association are subject to the approval of the College administration and the Board of Trustees.

Ratified May 3, 1977
Amended April 10, 1984
Amended May 21, 1985

STUDENT RIGHTS, RESPONSIBILITIES
AND JUDICIAL PROCEDURES

For purposes of brevity, the title “dean” will refer to the dean of student services throughout this section

I. PREAMBLE
Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the well being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of this academic community, students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth.

Freedom to teach and freedom to learn are inseparable facets of academic 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 accrued to them by virtue of this membership. As members of the larger community of which the College is a part, students are entitled to all rights and protection accorded them by the laws of that community.

By the same token, students are also subject to all laws, the enforcement of which is the responsibility of duly constituted authorities. When students violate laws, they may incur penalties prescribed by legal authorities. In such instance, college discipline will be initiated only when the presence of the student on campus will disrupt the educational process of the College. However, when a student’s violation of the law also 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 the 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. All rights and privileges guaranteed to every citizen by the Constitution of the United States and by the State of North Carolina shall not be denied any student.

B. 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.

C. Students have the right to freedom of expression, inquiry, and assembly without restraint or censorship subject to reasonable and non-discriminatory rules and regulations regarding time, place, and manner.
D. 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 offices.

E. 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. No records shall be made available to unauthorized personnel or groups outside the College without the written consent of the student involved except under legal expulsion.

F. No disciplinary sanctions (other than temporary removal from class or activity only for duration of said activity) may be imposed upon any student without due process. 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.

G. The Student Right To Know Act requires Johnston Community College to disclose information about graduation, completion, and transfer-out rates to current and prospective students and the public. This information is provided to students and prospective students in the Student Handbook, through the College Web site, mailings to students, and through other publications.

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 disrupts or threatens to disrupt 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 prohibiting 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.

A. Academic Dishonesty – taking or acquiring possession of any academic material (test information, research papers, notes, etc.) from a member of the college staff or student body without permission; receiving or giving help during tests; submitting papers or reports (that are supposed to be original work) that are not entirely the student’s own; not giving credit for others’ work (plagiarism).

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.

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. Possession, use or distribution of any illegal drugs, except as expressly permitted by law. 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 his/her actions.

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

E. Mental or physical abuse of any person on college premises or at college sponsored or 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.

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.

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.

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.

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.

J. Possession or use of a firearm, incendiary device, or explosive, except in connection with a college-approved activity. This also includes unauthorized use of any instrument designed to inflict 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.

L. Gambling.

M. Smoking and/or using other forms of tobacco products in classrooms, shops, and labs or other unauthorized areas.

N. Violation of college regulations regarding the operation and parking of motor vehicles.

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

P. Failure to comply with instructions of college officials acting in performance of their duties.

Q. Violations of the terms of disciplinary probation or any college regulation during the period of probation.

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

S. Violation of a local, state, or federal criminal law on college premises adversely affecting the college community’s pursuit of its proper educational purposes.

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 the student(s) involved to cease and desist such conduct and advise them that failing to cease and desist will result in immediate suspension. If the student(s) fails to cease and desist, the instructor may then suspend the student(s) from the class. An administrative officer may suspend the student(s) from either the class or the college until a resolution of the matter can be made.

The instructor or administrative officer invoking such suspension shall notify the dean in writing of the individual(s) involved and the nature of the infraction as soon as possible but no more than two days following the incident. The dean shall resolve the matter in a timely fashion utilizing the steps outlined below in Section IV, C.

B. Responsibility for Implementation

The dean is responsible for implementing student discipline procedures.

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, or student may file charges with the dean against any student or student organization for violations of college regulations. The individual(s) making the charge must complete a charge form (available from the office of the dean or the college’s Web site) stating:
   a. name of the student(s) involved,
   b. the alleged violation of the specific Code of Conduct,
   c. the time, place, and date of the incident,
   d. names of person(s) directly involved or witnesses to the infractions,
   e. any actions taken that relate to the matter,
   f. desired solution(s).

   The completed charge form should be forwarded directly to the dean.

2. Investigation and Decision: Within five (5) working days after the charge is filed, the dean 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 dean may act as follows:
   a. Drop the charges.
   b. Impose a sanction consistent with those shown in Section V.
   c. Refer the student to a college office or community agency for services.

3. Notification: The decision of the dean shall be presented to the student in writing immediately following the meeting with the student. In instances where the student cannot be reached to schedule an appointment with the dean or where the student refuses to cooperate, the dean shall send a certified letter to the student’s last known address providing the student with a list of the charges, the dean’s decision, and instructions governing the appeal process (Section VI).

V. SANCTIONS

A. Reprimand: A written communication which 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: the individual is given a chance to show capability and willingness to observe the Student Code of Conduct without further penalty; secondly, if the individual errs again, further action will be taken. This probation will be in effect for no more than two (2) semesters.

C. Restrictive Probation: Restrictive Probation results in the loss of good standing and becomes a matter of record. Restrictive conditions may limit activity in the college community. 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 with any college or student organization, publication, or activity. This probation will be in effect for not less than two (2) semesters. Any violation of Restrictive Probation may result in immediate SUSPENSION.

D. Restitution: Paying for damaging, misusing, destroying, or losing property belonging to the College, college personnel, or students.

E. Interim Suspension: 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: Imposed as a result of academic dishonesty.

G. Withholding the transcript, diploma, or right to register or participate in graduation ceremonies: Imposed when financial obligations are not met. (Will not be allowed to register until all financial obligations are met.)

H. Suspension: Exclusion from class and/or all other privileges or 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 dean before returning to campus.

I. Expulsion: Dismissing a student from campus for an indefinite period resulting in losing student status. The student may be readmitted to the College only with the approval of the president.

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

L. Group charter Revocation: Removal of College recognition for a group, club, society, or other organizations for a minimum of two years. The re-chartering of a group/club must be approved by the college president.

VI. APPEALS PROCEDURE

A student who disagrees with the decision of the dean may request a hearing before the Disciplinary Review Committee. This request must be submitted in writing to the dean within three (3) working days after receipt of the dean’s decision. The dean shall refer the matter to the Disciplinary Review Committee together with a report of the nature of the alleged misconduct, the name of the complainant, the name of the student against whom the charge has been filed, and the relevant facts revealed by the dean’s investigation.

A. Committee Composition

Membership of the Disciplinary Review Committee shall be composed of the following:

1. Three faculty/staff members appointed by the president of the College.
2. Three student members appointed by the Student Government Association and approved by the president of the College.
3. The president will appoint one administrator to serve as committee chairperson who will vote only in case of a tie.
4. The dean as an ex-officio non-voting member.
5. Committee members will serve a one year term, beginning in January and ending in December. Replacements will be appointed by the president or SGA if necessary.

B. Procedure for Hearings Before the Disciplinary Review Committee

1. Procedural responsibilities of the dean:

The Review Committee must meet within 10 working days of receipt of a request for a hearing. At least five working days prior to the date set for the hearing, the dean 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.
d. A list of witnesses.
e. The names of committee members.

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.
b. The right to produce witnesses on one’s behalf.
c. The right to request, in writing, the president to disqualify any member of the committee for prejudice or bias. (The request must contain justification.) A request for disqualification, if made, must be submitted at least three (3) working days prior to the hearing. If such disqualification occurs, the appropriate nominating body shall appoint a replacement to be approved by the president.
d. The right to present evidence.
e. The right to know the identity of the person(s) bringing the charge(s).
f. The right to hear witnesses on behalf of the person bringing the charges.
g. The right to testify or to refuse to testify without such refusal being detrimental to the student.
h. 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 five working days of the completion of the hearing.

3. The Conduct of the Committee Hearings.
   a. Hearings before the Committee shall be confidential and shall be closed to all persons except the following:
      1) The student.
      2) Counsels.
      3) Witnesses who shall:
         i. Give testimony singularly and in the absence of other witnesses.
         ii. Leave the committee meeting room immediately following completion of the testimony.
   b. The hearing will be tape-recorded. Tapes will be used for transcription purposes and will be erased once a written record of the hearing is established.
   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 two working days after the decision of the committee, the dean 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 five 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 dean 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 10 working days of the receipt of the appeal.

VII. STUDENT GRIEVANCE PROCEDURE
A. Purpose
   The purpose of the student grievance procedure is to provide a system to channel student complaints against faculty and staff concerning the following:
   1. Alleged discrimination on the basis of age, sex, race, handicap or other conditions, preferences or behavior, excluding sexual harassment complaints.
   2. Sexual harassment complaints should be directed to the dean. Because of the sensitive nature of this kind of complaint, a conference with the dean will replace the first step of the grievance procedure. The dean will counsel with the student to determine the appropriate action. If the grievance is not resolved after this meeting, then the remainder of the grievance procedure will be followed.
   3. Academic matters, excluding individual grades, except where the conditions in items A above apply.

B. Procedure
   1. First Step
      The student must go to the instructor or staff member where the alleged problem originated. An attempt will be made to resolve the matter equitably and informally at this level. The conference must take place within five working days of the incident which generated the complaint.
   2. Second Step
      If the grievance is not resolved at the informal conference, the student may file a written grievance. A grievance form shall be made available to the student by the dean. The dean will explain the grievance process to the student. The completed grievance form must be presented to the dean within five working days after satisfying the first step in the grievance process. The dean will then refer the grievance to the immediate supervisor involved. The supervisor shall respond in writing to the student within 10 working days of receipt of the grievance form from the department involved.
   3. Third Step
      If the written statement of the supervisor does not satisfy the grievant, a request to appear before the Student Grievance Committee may be made. The student must submit a written request within five working days after receiving the written response of the supervisor. The request shall include a copy of the original grievance form and the reason why the supervisor’s response is unsatisfactory. A copy of the supervisor’s response must be attached to the request by the student.

      The dean shall immediately notify the president who shall insure that the committee is organized in a manner consistent with Section C of this procedure (The Student Grievance Committee). The dean will send copies of the appeal to the members of the committee, the employee, and the employee’s supervisor. The employee against whom the grievance was filed shall be given an opportunity to respond in writing to the chairperson of the committee.

      Meeting(s) shall be conducted between five and fif-
teen working days following the date of the request. A postponement may be granted by the chairperson upon written request of either party if the reason stated justifies such action.

The committee shall hold interviews with the grievant, the employee, and the supervisor, singularly, and in the absence of other witnesses. The committee may interview any additional witnesses that it considers necessary to render a fair decision.

The committee shall decide by a majority vote the solution of the grievance. In case of a tie, the chairperson will vote, thus breaking the tie. The chairperson shall forward a copy of the committee’s decision to all parties involved and to the office of the president of the College within two working days.

4. Fourth Step
   The committee’s decision may be appealed to the president of the College within 10 working days of the committee’s decision by either party involved. The president shall review the committee’s findings, conduct whatever additional inquiries deemed necessary, and render a decision within 10 working days of receipt of the appeal.

C. The Disciplinary Review Committee will serve as the Student Grievance Committee.

D. Rights of Parties Involved in a Grievance
   When a grievance committee meeting is scheduled, the parties involved are entitled to:
   1. A written notice of the complaint.
   2. A written notice of the time and place of the meeting. This notice shall be forwarded to all parties at least five working days prior to the meeting unless they waive this requirement.
   3. Review all available evidence, documents, or exhibits that each party may present at the meeting.
   4. Have access to the names of the witnesses who may testify.
   5. Appear in person and present information on his or her behalf, call witnesses, and ask questions of any person present at the meeting.
   6. The right to counsel. The role of the person acting as counsel is solely to advise the client. The counsel shall not address the committee.

PARTICIPATION IN COLLEGE GOVERNANCE

Johnston Community College encourages its students to participate in the College’s decision-making processes to the fullest extent possible. Opportunities for participation are provided through formalized structures and the administration’s practice of an open-door policy.

Formalized participation is provided in the following ways:

a. The Student Government Association president serves as an ex-officio member of the Board of Trustees (ex-officio status accords the SGA president all rights as other Trustees except the voting privilege).

b. Student representatives serve on several Standing Committees.

c. Student representatives serve on the College’s planning team when it conducts the Strategic Planning Phase of the planning cycle and participates in the development of operational plans during the Operational Planning Phase of the planning cycle for such areas as the SGA, student activities, ambassadors’ program, etc.

d. When appropriate, student representatives serve on college ad hoc committees.

e. The president meets with the SGA Senate on a bimonthly basis to discuss how the college can best meet student needs.

f. Students may appeal decisions made by faculty and staff through the College’s appeals procedure.

The College’s administration practices an open-door policy. Students may, as individuals or groups, present ideas for improvement or concerns to the appropriate administrator or president at any time. The College administration will respond to such input in a timely manner.

The College believes it can only achieve excellence by the full participation of those it serves, the students, in institutional decision-making.

STATEMENT ON OPEN MEMBERSHIP IN STUDENT ORGANIZATIONS

It is the policy of the College that membership in student organizations is open to all eligible students in accordance with the bylaws of the various student organizations. Discrimination in admission to membership in student organizations on the basis of race, color, sex, handicap, age, religion, or national origin is specifically prohibited.

The College is an equal opportunity institution and is committed to full compliance with all federal laws and regulations prohibiting discrimination.
CLUBS AND ORGANIZATIONS

Student clubs and interest groups are encouraged as a means of developing common bonds or purpose and friendship between students with similar occupational and academic interests. Faculty members serve as advisors and assist student leaders in planning club programs and developing group activities.

Student organizations on campus include a chapter of Phi Beta Lambda business fraternity; a chapter of Phi Theta Kappa, International Honor Society of the Two-Year College; National Vocational and Technical Honor Society; Literary Guild; and clubs for students in Advertising and Graphic Design, Associate Degree Nursing (Integrated), Cosmetology, Early Childhood Associate, Greenhouse and Grounds Maintenance, Medical Sonography, Paralegal, Radiographic Technology, and Therapeutic Massage.

Membership in student clubs and organizations is open to eligible curriculum students regardless of race, color, sex, handicap, age, religion, or national origin.

RECREATIONAL ACTIVITIES

Informal recreation is part of the student activities program. Recreational activities are organized by students in response to student interest and needs and are supported by the Student Activity Fund.

Students are encouraged to organize and participate in various recreational activities. Equipment may be checked out at the office of the coordinator of student activities.

TRAFFIC AND PARKING REGULATIONS

Traffic regulations of the State of North Carolina are applicable to all persons who drive a motor vehicle on the campus. Student parking is provided in designated areas of the campus. Reserved parking is provided in other designated areas for visitors, handicapped persons, faculty, and staff members.

Enforcement of traffic and parking regulations and penalties for violations are administered by the Business Office.

MINORS ON CAMPUS

College policy does not allow minors to be left unattended in vehicles or on campus, or brought to class. Although minors may accompany parents or guardians to the campus during registration and other appropriate times, minors are not allowed on campus unattended while parents are attending class. The practice of bringing minors to class is a potential disruption for others and places the College in a position of liability. Students bringing minors to class, the Library, or during any inappropriate time will be asked to leave.

STUDENT PUBLICATIONS

Student publications, either by an individual or student organization, must be approved through the appropriate organization advisor and the dean of student services before production and distribution. All guidelines of the published “Publications Guidelines” for college publications contained in the Johnston Community College Operational Policies and Procedures Manual must be followed if the student publication meets the criteria for a “public document.”

Student publications must not be in conflict with the “Student Code of Conduct” as published in this section of this catalog.

THE STUDENT LOUNGE

The Student Lounge provides a convenient place for relaxation, conversation, and a break between classes. Sandwiches, coffee, soft drinks, and other food items are available in the lounge. Vending machines are also available at various locations on the campus. Non-students are not allowed to use the student lounge without permission of the administration. ID’s are checked on a random basis.

SECURITY POLICY

Johnston Community College encourages all students and employees to report emergencies and/or criminal actions. If the emergency or criminal action involves personal injury or damage, security personnel and the dean of student services should be notified immediately. If the emergency or criminal action involves injury to property or buildings, the dean of administrative, fiscal and personnel services should be notified immediately. The dean of student services and dean of administrative, fiscal and personnel services are responsible for responding to emergencies and criminal actions. In their absence, other college deans are responsible for responding to any emergency in their areas.

The administration attempts to provide a safe, secure educational environment for all students and employees. Security guards are on duty during classes and on weekends. The security guards provided by the College have no law enforcement powers and contact the sheriff’s department as needed.

All new registering students participate in general orientation to the campus. During the orientation, the dean of student services and/or the dean of administrative, fiscal and personnel services discuss the need and procedure of reporting emergencies and criminal activities, campus security measures, and crime prevention.

Information regarding drug and alcohol abuse is covered under a separate drug and alcohol policy in the “Student Development Services” section of this catalog.

Information pertaining to the number and type of criminal
actions occurring on campus is collected by the dean of student services and the dean of administrative, fiscal and personnel services and compiled annually. It is housed in the Student Services Office and is provided to students and employees through publications, including the Student Handbook, the College Web site, mailed correspondence, and other media.

STUDENT USE OF MOBILE PHONES OR PAGERS

Students are not allowed to bring mobile phones or pagers to class unless they are employed by, or serve as a volunteer for an emergency type organization requiring this type equipment. In no circumstance should the phones or pagers be turned on in class without prior approval of the instructor.
ACADEMIC REGULATIONS

Johnston Community College exists to provide for the fullest possible development of each person who enters its open door to learn. The policies, programs of study, and regulations of the College are directed toward this objective.

The College expects each student to make significant academic progress toward his/her chosen educational goal and is committed to making this objective possible for all students. At the end of each semester, final course grades are issued and an assessment is made of the student’s academic progress. Satisfactory progress is defined in this section of the under the heading “Academic Progress.”

THE SEMESTER SYSTEM

The College operates on the semester system. Fall and spring semesters are each 16 weeks in length. Classes are in session five days per week. Summer may be a shorter session (typically a 10-week session).

Classes normally meet 50 minutes per instructional hour with a 10-minute break between classes. The number of times per week that a class meets is determined by the number of semester hours credit prescribed in the curriculum and is indicated in the semester class schedule.

Semester hours of credit are awarded as follows: one semester hour of credit for each hour per week of class lecture, one semester hour of credit for each two or three hours per week of laboratory work or clinical experience, manipulative laboratory training, or shop practice.

DISTANCE LEARNING OPTIONS

Distance Learning expands learning opportunities by using nontraditional delivery methods. Johnston Community College offers a variety of quality courses through various nontraditional delivery methods to meet the needs of a growing diverse population of learners with various learning and life styles. Each distance learning course is equivalent to the on-campus sections of the same course in terms of objectives, contact, rigor, and transferability. Students may choose to take telecourses, courses-by-cassette, Internet-based, or North Carolina Information Highway courses. Although the nontraditional methods of instruction offer a high degree of flexibility, they do require self-motivated and self-disciplined students.

Some of these courses require a minimum number of scheduled on-campus visits for orientations, testing, presentations, etc. Students enrolled in distance learning courses use a variety of techniques to communicate with their instructors and/or their cybermates.

Distance Learning courses are facilitated by qualified, competent instructors who structure the course so that the learning outcomes are comparable to those in a traditional classroom setting. They also serve as a resource to the students.

Costs, credits, and registration procedures are the same as on-campus courses. Students have access to the same services and library resources.

Telecourses/Courses-by-Cassette

When students enroll for a telecourse or course-by-cassette, they either check out videos from Johnston Community College or view the classes that are broadcast at scheduled times by PBS Adult Learning Services. Faculty interacts with students through a combination of on-campus orientations, written assignments, telephone contacts, electronic mail, or postal service.

Internet-based Courses

The College offers a variety of courses that are computer-based and use the Internet as the main method of delivery. Students enrolled in Internet-based courses communicate with their instructor(s) and other students by e-mail, “chat rooms,” listserves, and telephone.

Instructors use a variety of resources including textbooks, study guides, World Wide Web sites, and personally designed materials that supplement their instruction.

Students who wish to take an Internet-based/online course at Johnston Community College should have a basic knowledge of specific skills applicable to the delivery method. An orientation is available online or on CD.

Before enrolling in an Internet-based or online course, the student should be comfortable demonstrating the following competencies:

• Computer operation and start-up.
• Setup, maintenance, and troubleshooting through technical assistance resources from your Internet Service Provider.
• Understand and have knowledge of basic word processing.
• Basic Internet skills.

Recommended Computer Specifications:

• A Pentium 3 or higher, a Macintosh G3 or higher, or any similar computer capable of connecting to the Internet.
• A 56K modem; DLS or cable modem would be recommended.
• An Internet Service Provider and an e-mail address.
• A graphical Internet browser such as Netscape (6.0 or higher), Microsoft Internet Explorer (6.0 or higher) or other browsers with Java capabilities.

Classes from a distance are also available through the Continuing Education Division. Questions should be forwarded to the Continuing Education Office at (919) 209-2108.

North Carolina Information Highway

The North Carolina Information Highway is an interactive, two-way video network that connects universities, colleges, secondary schools, medical centers, and other agencies throughout the state. Johnston Community College is a participant on the NCIH with a state-of-the-art video classroom. A course in this room is either broadcast to another college or received from another college via video. This allows JCC to send and receive high-quality courses with partners throughout the state, enhancing the educational experience of our students. For more information about the Distance Learning program, call (919) 209-2177.

REGISTRATION

Students pursuing degree, diploma, and certificate programs typically register and are enrolled at the beginning of a semester. Students wishing to take fast track courses in selected programs that are scheduled to start after the beginning of a semester may register and be enrolled for those courses prior to the starting date. Generally, students begin their program of study in the fall semester. However, entrance at the beginning of other semesters is possible when the curriculum and class schedule permit.

Students may register for certain courses to be taken in evening hours on a modified basis, as provided for in curriculum outlines and course descriptions.

All students are expected to register during the time scheduled for that purpose. Semester registration dates are published in the “Academic Calendar” and announced prior to each semester.

Entering curriculum students must be accepted for admission by the director of admissions and counseling before beginning the registration process. Each student is assigned a faculty advisor who assists the student in planning a program of study. The faculty advisor must approve the student’s proposed class schedule each semester prior to registration.

Continuing Education Registration

Information regarding registration for Continuing Education courses may be found in the “Continuing Education” section of this catalog.

Distance Learning Registration

Students who have an application on record at Johnston Community College should contact the Student Services Office at (919) 209-2128. Students who do not have an application on record at the College will need to fill out an application for admission and will then be contacted with information on how to register.

Course Load and Classification

Each student is responsible for being familiar with the requirements of the program of study that the student is pursuing and for keeping account of progress toward completion of graduation requirements.

Class schedules and course loads should be carefully planned by the student in consultation with the faculty advisor. The student is expected to be familiar with all regulations set forth in the catalog. Copies are available in the Student Services Office.

A full-time curriculum student is one who is carrying a minimum course load of 12 semester hours in a degree, diploma, or certificate program. The normal load for typical full-time students generally varies between 15 and 19 semester hours. A part-time student is one who is carrying a course load of less than 12 hours.

A student who desires to register for additional course work above the normal load for the curriculum, as outlined in the catalog, must present a written recommendation from the faculty advisor and secure the approval of the dean of curriculum programs.

Students in associate degree programs who have completed less than one-half of the credit hours required for graduation are classified as first year students. Those who have completed one-half or more of the credit hours required for graduation are classified as second year students.

Persons who wish to enroll for a special educational objective not specifically provided for in an established curriculum may be admitted and classified as special students. As such, a special student may take up to 15 credit hours of coursework without meeting requirements for acceptance into a program of study. Special students are required to pay tuition and fees. Exceptions must be approved by the dean of student services.

Credit Hour Load Policy For Visiting Students

Any student attending a community college shall not enroll in more than 21 credit hours per semester without prior approval of the home college. Any student enrolled in two or more colleges concurrently during a semester shall give each college complete enrollment information including: the name of each college enrolled, the number of credit hours taken, the class schedule, and other relevant information.
Any student who exceeds 21 credit hours during a semester without prior approval of the home college or fails to give complete and accurate enrollment information shall be prohibited from taking courses at any community college for one academic year.

Changes in Course Registration

A student who wishes to add or drop a course after initial registration must secure the faculty advisor’s approval on a Registration Change Notice form before the change can be made official with the Registrar’s Office.

A student who is considering dropping a course after the last day for late registration is strongly encouraged to consult with the instructor of the course before taking further action. No withdrawals are accepted for processing after the first eight weeks of the semester without extenuating circumstances and must be signed by the department chair or dean. Withdrawals after the first eight weeks of the semester are handled on a case-by-case basis.

Course changes must be made in accordance with the “Academic Calendar.”

ORIENTATION

All students in diploma and associate degree programs are required to complete an orientation course to graduate from the College. The course is designed to help incoming students learn and adjust to the academic and social environment of the College. Students are strongly advised to register for this course during their first semester at the College.

In the course, the various services provided at the college are explained. The policies and procedures of the College are also discussed. Special emphasis is placed on study skills and personal development essential for success.

Students will take ACA 111 or ACA 115 as their orientation course. Students who are required to take two or more developmental courses in either reading or English will need to enroll in ACA 115. During the admissions interview with a counselor, students will receive a Course Assignment Sheet indicating whether they are to take ACA 111 or ACA 115.

THE LIBRARY

The primary purpose of the Library at Johnston Community College is to provide materials and services to advance the educational goals and objectives of the College. The collection includes all types of media - both print and non-print - selected to support and enrich the curriculum areas offered by the College. The Library provides materials for reference in all subject areas, including materials to serve the avocational and general interests and needs of the students, faculty, staff, and other interested citizens of Johnston County and surrounding areas.

The operating schedule of the Library is arranged to provide both day and evening students ample time and opportunity for extended periods of study. In order to maintain an atmosphere conducive to study and testing, children under 16 should not be brought into the Library.

Library financial obligations must be paid in cash and cleared before students will be allowed to register for classes, graduate, or receive transcripts.

The Library makes photo identification cards during normal operating hours. Students need a driver’s license and a copy of their current class schedule in order to obtain the card. Duplicate identification cards will be made for a fee.

Presently, the Library contains thousands of volumes and subscribes to numerous periodicals of general and technical interest. The collection, which continues to expand, is designed to serve students, faculty, and staff as well as the community at large. The library’s collection is available online via the College’s Web site. The database consists of holdings from over forty colleges in the North Carolina Community College System. Interlibrary loan service is also available.

Students may utilize the research computers in the Library after signing a “Computer Policy” agreement and signing in at the circulation desk. This will give users access to a storehouse of electronic resources online. The Library subscribes to Opposing Viewpoints Resource Center, Literature Resource Center, and NCLIVE, which is a computerized index of many databases including:

- Alexander Street Press
- Bowker
- Chadwyck-Healey
- EBSCO NoveList
- EBSCOhost
- Gale InfoTrac
- GaleNet
- Greenwood
- Kiplinger
- netLibrary
- OCLC FirstSearch
- ProQuest
- Sanborn Maps
- SilverPlatter

The Library staff is available for reference and reader’s advisory assistance. Library Help Desk e-mail is answered by a professional librarian during normal business hours and offers assistance to all patrons.

MEDIA SERVICES

Media Services, located near the Library, houses a collection of non-print aids to enhance the teaching process. Videos, slides, tapes, transparencies, and other materials are available as well as the equipment necessary to use these materials.

THE ACADEMIC SKILLS CENTER

The Academic Skills Center (ASC) is available to students who wish to improve their academic skills in the areas of English, reading, and math. The Center provides formal classroom instruction for Johnston Community College students with
developmental learning needs and students enrolled in the College Student Success course. ASC faculty also provide academic workshops to help all college students improve their academic skills and ability to learn, thereby maximizing their academic experience and allowing them to achieve greater academic performance and personal fulfillment.

**CHANGES OF PROGRAM**

Students are permitted to change from one program of study to another program in accordance with changes in their educational and career objectives. A student who wishes to change from one program to another is required to consult with a counselor concerning his/her proposed educational plans and to secure approval from the Admissions Office.

Students who wish to change from their first program of study to a second program of study without having completed their first program may be approved to do so without restriction. However, students who seek a second change in order to attempt a third program must have a minimum cumulative grade point average of 2.0 to be eligible to undertake a third program of study.

**Changes of program should be initiated at least four weeks prior to the date of registration.** Counseling is provided to assist the student in educational and career planning. Curriculum courses previously passed are evaluated for purposes of transfer credit to the student’s new program of study. Previously earned credit hours approved for transfer are granted toward completion of graduation requirements for the new program of study.

**ATTENDANCE REGULATION**

All students must enter class prior to the class 10 percent date. Students who fail to attend by this date will be dropped from the class roll. Regular and punctual attendance is expected of all students in order for them to achieve their potential in class and to develop desirable personal traits necessary to succeed in employment.

Since course content and teaching methods vary, each instructor will determine his/her own requirements for attendance. Attendance requirements for each class will be printed in the course syllabus, which will be distributed the first week of class. Class attendance is calculated from the first scheduled class meeting to the last. Late arrivals and/or early departures may count toward total absences.

If a student is dropped by an instructor due to excessive absences, a grade of “WF” will be issued and calculated in his/her grade point average. The student must obtain the permission of the instructor to reenter class. If this request is denied, the student may petition the department chair for reinstatement. If the department chair denies the request, the dean of curriculum programs will make the final ruling on the decision.

**GRADING SYSTEM**

**Grading Policy**

Johnston Community College students earn grades for classes in accordance with criteria set forth in course syllabi. The instructor of record assigns grades at the end of each semester utilizing the grading system. All grades are final and are not subject to change unless an error in calculation occurs. Any student who is concerned that the grade is erroneous should consult with the instructor within one semester after the grade is earned. Any further grade appeal should be made to the department chair and if necessary to the dean of curriculum programs whose decision is final. Final course grades are issued to the student at the end of each semester in accordance with the following grading system:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>3.0</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>Below Average</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Unsatisfactory</td>
<td>0.0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete temporarily for the duration of the following semester or summer session. Credit hours attempted are not counted in the present semester in computing the grade point average. If a passing grade is not achieved during the following semester, the grade of “I” automatically becomes “F” and credit hours attempted for the course are counted in computing the grade point average.</td>
<td></td>
</tr>
<tr>
<td>WD</td>
<td>Officially withdrew within the first eight weeks of the semester. Credit hours attempted are not counted in computing the grade point average. No withdrawals are accepted for processing after the first eight weeks of the semester without extenuating circumstances and must be signed by the department chair or dean. Withdrawals after the first eight weeks of the semester are handled on a case by case basis.</td>
<td></td>
</tr>
<tr>
<td>WF</td>
<td>Withdraw failing occurs if the student exceeds the number of absences specified by the attendance requirement and is dropped by the instructor. Credit hours attempted are counted in computing the grade point average. Also, students who withdraw after the midway point would get a WF without extenuating circumstances.</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>Credit by proficiency examination. Courses on which this grade is earned are not included in the grade point average.</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Audit. Course taken for noncredit purposes. Students auditing courses must meet the attendance regulation to continue in class.</td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>Never attended. Non penalty grade.</td>
<td></td>
</tr>
</tbody>
</table>
Removal of “I” Grades

The grade of “I,” meaning course work is temporarily incomplete, may be removed by completing all work assigned by the instructor. It is the responsibility of the student to make arrangements with the instructor to accomplish the required work needed to remove the “I” grade. If the student satisfactorily completes the required work during the semester or summer session immediately following receipt of the “I” grade, the instructor assigns a permanent passing grade. Otherwise, the “I” grade automatically becomes a grade of “F” for purposes of the student’s record and cumulative grade point average.

Minimum Class Size

All curriculum classes will be expected to have a minimum number of 10 students. Exceptions to this policy may occur when it is determined by the dean that offering a small class is in the best interest of the students or the community.

Course Repetition and Audit Policy

A student may enroll in a course no more than three times for credit or audit. A course may be repeated to improve a grade or replace a withdrawal. All grades, including the record of an audit, and credit hours attempted will appear on the student’s official transcript, and will be utilized in determining eligibility for financial aid. However, only the higher grade will be used for computing total credit hours attempted, total grade points earned, and grade point averages (GPAs). Exceptions to this policy may be made with prior approval by the dean of curriculum programs. This policy does not apply to developmental courses.

To audit, a student must register for the course and pay regular tuition. The last date to register to audit a course is the last day of the late registration period, as specified in the “Academic Calendar.”

Students who audit courses must abide by the College attendance regulation and are encouraged to take tests and to participate in class discussion, but are not required to do so.

A grade of “AU” is given for record purposes.

Credit by Examination

Course credit for proficiencies previously developed by the student may be earned by examination. A student who wishes to challenge a course may apply to take a proficiency examination covering the content of the course. Examinations may be arranged to document proficiencies previously developed through employment, military service, secondary education, post secondary non-accredited schools, or correspondence schools.

To earn credit by proficiency examination the student must:

1. Be currently enrolled in the program containing the course for which credit by examination is being sought.
2. Not have previously attempted the course for which credit by examination is being sought.
3. Submit the prescribed application for approval to seek credit by examination. Application forms are available from the Student Services Office.
4. Register for the course and pay appropriate tuition and fees as may be required.
5. Demonstrate to the satisfaction of the appropriate faculty member that sufficient justification exists to warrant approval of the request for the examination.
6. Secure written approval from the instructor, the department chair, and the dean to take the examination.
7. Be sure that for any course(s) which the student has registered at the beginning of the semester and has attended classes, credit by examination must be gained within the first two weeks of the semester. Courses for which a student has secured approval and has registered after the normal registration period may be challenged at any time during the semester.
8. Arrange an appropriate time at the convenience of the instructor to take the examination. The student is allowed one opportunity to take a proficiency examination for credit in any given course.

The grade of “CR” (credit by proficiency examination) is the official grade used by the instructor to report successful completion of a proficiency examination. To earn credit by examination, a student must achieve a score equivalent to not less than “C” on the examination. There is no penalty or grade of record for an unsatisfactory grade on a proficiency examination.

Courses on which the grade of “CR” is earned are not included in the calculation of the student’s grade point average.

Credit by Experience

The granting of curriculum credit for nontraditional educational experiences will be considered upon receipt of appropriate official documentation by the dean of student services. The dean of student services will evaluate the documentation to determine the applicability to the student’s educational program. Transfer credit for nontraditional work from an accredited institution is limited to no more than 50 percent of the AAS degree or diploma requirements. The student will receive written notification of credit awarded on the Transfer Credit Evaluation form.

Curriculum credit for proficiencies developed through various nontraditional learning activities may also be earned as described in the Credit by Examination policy. Curriculum credit may be granted for courses that have been passed by appropriate examination of the Advanced Placement Program.
(APP), the College Level Examination Program (CLEP), and the Defense Activity for Non-Traditional Education Support (DANTES). Credit will be allowed for APP scores of three and above. CLEP and DANTES test scores must meet American Council on Education (ACE) minimum recommendations.

1. The student must document a specific work experience or skill that coincides with the skills and tasks required in a particular course.
2. The department chair will evaluate the documented training and/or experiences which may require a demonstration of one's ability. Experiences must be approved by the student’s curriculum department chair, the subject area department chair, chief academic officer, and the dean of student services.
3. 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.
4. The approved credit recommendation should be submitted to the Registrar’s Office.
5. The registrar will record a symbol of “EL” on the transcript with credit hours; however, no grade points will be assigned.
6. Documentation of experience shall be kept on file for five years in the Registrar’s Office.

Core Competencies

Every individual needs common knowledge, skills, and attitudes to be effective as a person, a worker, a consumer, and a citizen. Johnston Community College has defined core competencies as listed below. Graduates of all associate degree and diploma programs are expected to be able to demonstrate these competencies.

Communicate
- Speak and write clearly and effectively
- Read, comprehend, and follow directions
- Listen effectively
- Organize and deliver an oral presentation
- Identify self strengths and needs for improvement as communicator

Think
- Analyze information
- Identify solutions
- Make logical decisions
- Solve problems
- Be creative

Perform
- Interpret numerical data
- Manipulate data logically
- Demonstrate basic computer skills
- Apply occupational technical skills
- Recognize the impact of technology

Value
- Appreciate diversity
- Interact effectively
- Adapt to change
- Demonstrate responsible citizenship
- Express an awareness of historical and global perspective

Military Service Training

Military service school records may be submitted for transfer credit consideration. Service school diplomas, Army/ACE Registry Transcript System (AARTS) Transcripts, and Military Occupational Specialty (MOS) Evaluation Score Reports are accepted for transfer credit evaluation. Military service experiences are evaluated using American Council on Education (ACE) recommendations.

Grade Point Average

The cumulative grade point average is computed by dividing the grade points earned by the hours attempted. For example, 38 grade points are divided by 20 semester hours attempted to equal a 1.90 cumulative grade point average.

When a course is repeated, the hours attempted and the grade earned are included in the computation of the student’s cumulative grade point average. In case a student receives a grade of “D,” “F,” or “WF” on a course and subsequently repeats the course, the total semester hours attempted include the hours attempted each time the course is taken. Students should see their academic advisor or Student Services staff to answer further questions.

Dean’s List

The College recognizes outstanding academic achievement each semester by publication of the Dean’s List. The Dean’s List is made up of students who are enrolled for a minimum of nine semester hours in any semester and have achieved a semester grade point average of at least 3.5 out of a possible 4.0 with no grade lower than “C.”

Forgiveness Policy

A student who has not been enrolled in curriculum courses in the College for 36 consecutive months may request the registrar to reevaluate his/her academic record. Under this policy, the student may request that his/her previous grade(s) of “F” not be used in calculating the cumulative grade point average. Prior to the reevaluation, the student must be readmitted to the College, register for courses, and complete at least 12 credit
hours of course work with a minimum grade point average of 2.0. The registrar, at the request of the student, will reevaluate his/her cumulative grade point average as appropriate. A reevaluation is provided only once for each student.

**WITHDRAWAL PROCEDURE**

A student who is considering withdrawal from a course(s) or from the College is strongly encouraged first to consult the instructor(s) and his/her faculty advisor.

To withdraw officially from the College, a student is required to report to a counselor or to the Student Services Office to complete the necessary form and obtain appropriate signatures.

Students are permitted to officially drop a course(s) or to withdraw from the College during the first half of a semester without incurring a penalty grade, provided that the student has not been dropped by the instructor for excessive absences.

Students who fail to complete the prescribed withdrawal procedure are considered to have withdrawn unofficially and not in good standing.

No withdrawals are accepted for processing after the first eight weeks of the semester without extenuating circumstances and must be signed by the department chair or dean. Withdrawals after the first eight weeks of the semester are handled on a case-by-case basis.

**ACADEMIC PROGRESS**

Each student enrolled in a degree or diploma program is expected to maintain satisfactory progress toward completion of requirements for the degree or diploma. At the end of each semester, the student’s semester grade point average and cumulative grade point average will be reviewed.

To be considered making satisfactory academic progress, a student must maintain at least a 2.0 cumulative grade point average related to the number of credit hours attempted.

Cumulative grade point average will be used to determine each student’s academic progress and status at the College. This average is applicable also for purposes of certification to the Veterans Administration; Social Security Administration; State Division of Vocational Rehabilitation Services; student grants, loans, scholarships, other college financial aid; and other public and private agencies authorized to receive this information.

Reports of academic progress are included on grade reports mailed to all students following the end of each semester. Records of progress are kept by the registrar on veteran and non-veteran students alike.

Additional academic progress standards are required for students who are receiving financial aid. This information may be found in the “Student Development Services” section of this catalog under the “Financial Aid” heading.

**ACADEMIC PROBATION**

A student whose academic progress is unsatisfactory, based on the student’s cumulative grade point average, will be placed on academic probation and will be notified by the dean of student services. The student is required to meet with a counselor soon after being placed on probation. The purpose of this conference is to review the student’s progress and to offer help in planning ways to improve academic progress and remove probationary status as soon as possible. While on academic probation, the student is required to meet with the department chair or designated probation advisor for his/her program of study to assist them in the completion and review of the student’s appropriate registration forms prior to each semester. The expanded advisement process is designed to assist students in meeting educational objectives through a careful review of course selections and class loads.

Probationary status is removed by attaining the minimum cumulative grade point average required for satisfactory progress, as defined under the “Academic Progress” heading in this section of the catalog.

A student on academic probation is not permitted to participate in certain types of extracurricular activities, such as holding an executive office in the Student Government Association. Students on probation are not entitled to officially represent the College, the Student Government Association, or a student club or organization at meetings, conferences, and conventions.

**ACADEMIC SUSPENSION**

A student who has been on academic probation for two consecutive semesters and completed 24 hours of study will be suspended from his/her program of study for a period of one semester. Prior to returning to the respective program of study, the student is required and will be notified to report for a conference with a counselor and the completion of a personalized development plan as defined during the conference. The purpose of the conference is to offer the student assistance in reviewing his/her educational process. In addition to personalized counseling, the student will continue to meet with his/her designated advisor prior to registration. The additional counseling and advising are provided to help students clarify educational goals and consider alternatives appropriate to the students’ needs and objectives.

A student suspended more than once for insufficient academic progress will be suspended for two semesters and additional counseling will be provided to assist the student.

Students who are unable to maintain satisfactory academic performance in compliance with college and departmental policies will be subject to academic dismissal.

The dean of student services is responsible for administration of academic probation and suspension.
ACADEMIC DISMISSAL – BLET/HEALTH PROGRAMS

A student whose academic progress does not meet established program requirements may be academically dismissed from the program. The following program requirements are also published in the departmental handbooks and students are made aware of these policies prior to enrollment.

Basic Law Enforcement Training

Students must achieve a minimum score of 70 percent of each end of block test. All students must satisfactorily complete the physical conditioning requirements.

Health Programs

Students in the Associate Degree Nursing, Cardiovascular Sonography, Computed Tomography/Magnetic Resonance Imaging, Medical Assisting, Medical Sonography, Nuclear Medicine Technology, Phlebotomy, Radiography, and Therapeutic Massage programs are required to attain a minimum grade of “C” on all the major courses and the biology courses. In addition, each student must demonstrate satisfactory clinical skills.

DEGREES, DIPLOMAS, AND CERTIFICATES

The Associate in Applied Science degree is awarded to students who complete a two-year technical education program.

The Associate in Arts, Associate in Arts - Business Administration, Associate in Fine Arts, Associate in Science, Associate in Science Biology & Biology Education, or Associate in General Education degree, as appropriate, is granted to students who complete the two-year College Transfer program.

A diploma is awarded for completion of a one-year Applied Technology program. The College awards certificates for completion of other courses of study.

Award of Additional Associate Degrees or Diplomas

The College may award an additional degree or diploma to the student who has completed all required and elective courses specified for each additional program of study. A student shall be given credit for having completed courses in a degree or diploma program if they are the same courses previously taken and satisfactorily completed in another degree or diploma program.

It shall be the joint responsibility of the dean and department head to determine elective courses acceptable for transfer credit.

Changes in Curricula

During a period of transition following curriculum revision, students currently enrolled may select either the old or new curriculum as their basis for meeting graduation requirements. Course substitutions are subject to approval of the department head and the dean.

Students who have not attended for three or more consecutive semesters and apply for readmission to a curriculum following curriculum revision must meet the new requirements for graduation, as outlined in the current or amended catalog.

GRADUATION REQUIREMENTS

To be eligible for graduation from an associate degree or diploma program, the student must meet the following requirements:

- Have passed all courses specified and required in the student’s chosen program of study.
- Have earned a minimum cumulative grade point average of 2.0 on all required courses attempted at the College.
- Have taken and passed at least one fourth of the courses required in the program at Johnston Community College. It is anticipated that the final 15 semester credit hours be completed at the College.
- Have paid all financial obligations owed to the College.
- Have filed with the registrar an application to graduate within the first 10 days of the student’s final semester.

To be eligible for graduation from a certificate program, the student must:

- Pass all courses required in the program of study.
- Have paid all financial obligations owed to the College.
- Have filed with the registrar, an application to graduate within the first 10 days of the student’s final semester.

AWARDS

Outstanding Student Awards

Outstanding Student Awards are presented annually at graduation to a graduating student from each program of study who has maintained a 3.25 grade point average and has made the most significant contribution in terms of service to the community and to the College.

Academic Excellence Awards

Academic Excellence Awards are given annually to all graduating students who have maintained a grade point average of 3.5.
President’s Award

The President’s Award is given to the student selected as most outstanding in scholastic achievement and leadership qualities. The Student Advisory Committee makes the selection from Outstanding Student Awards nominees. A plaque is presented to the recipient of the award at graduation and his/her name is added to a permanent plaque on display at the College.

Citizenship Award

The recipient of the Citizenship Award is a graduating student selected on the basis of school leadership, service to fellow students, and participation in extracurricular activities. Nominees are submitted by faculty and staff members. The Student Advisory Committee makes the selection. The recipient is presented a plaque at graduation and his/her name is added to a permanent plaque on display at the College.

Distinguished Service Award

The Distinguished Service Award is presented to a student who has shown outstanding leadership in both school and community activities beyond the scope of the other awards. The selection is made by a majority vote of the Administrative Council and may not be awarded every year.

Student Government Service Award

The Student Government Service Award is given each year by the Student Government Association to the student who has rendered the most outstanding service to his/her fellow students.
At Johnston Community College, students apply and are admitted to programs of study. The curriculum for each program of study is designed in accordance with the Curriculum Standards mandated by the N.C. Community College System. State approval of each curriculum is required prior to the offering of courses within a program.

On each Curriculum Standard, there are requirements for general education, major hours, and other required hours.

The terms “major” and “area of concentration” are defined by the College as follows:

- A major includes those courses which provide specific job knowledge or skill and comprise the majority of the hours in each program of study.
- An area of concentration is a group of courses required beyond the core for a specific related employment field.

**ACCOUNTING**

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

### Degree A25100

**Day/Evening Full-Time**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
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<tr>
<td>ACC 120</td>
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<tr>
<td>ENG 111</td>
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<tr>
<td>ECO 251</td>
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<tr>
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### Certificate C25100

**Day/Evening Part-Time**

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<tr>
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<td>BUS 121</td>
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<tr>
<td>C1S 111</td>
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**Spring Semester 1**

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**Summer Session 1**

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**Fall Semester 2**

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**Spring Semester 2**

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<td>ACC 149</td>
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</table>

**Select One:**

- ACC 240 Gov & Not for Profit Accounting
- ACC 269 Audit & Assurance Servcs

**Electives:**

- ACC 140 Payroll Accounting
- COE 112 Co-op Work Experience I
Advertising and Graphic Design

The Advertising and Graphic Design curriculum is designed to provide students with the knowledge and skills necessary for employment in the graphic design profession which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

Degree A30100

Fall Semester 1
ACA 111 College Student Success 1 0 1
*GRD 141 Graphic Design I 2 4 4
GRD 110 Typography I 2 2 3
ART 131 Drawing I 0 6 3
ART 114 Art History Survey I 3 0 3
Total 14

Spring Semester 1
GRD 142 Graphic Design II 2 4 4
GRD 151 Computer Design Basics 1 4 3
GRD 160 Photo Fundamentals 1 4 3
ART 132 Drawing II 0 6 3
ENG 111 Expository Writing 3 0 3
Total 16

Summer Session 1
GRD 285 Client/Media Relations 1 2 2
GRD 152 Computer Design Tech. I 1 4 3
ART 115 Art History Survey II 3 0 3
MAT 140 Survey of Mathematics 3 0 3
Elective – ART 2
Total 13

Fall Semester 2
GRD 241 Graphic Design III 2 4 4
GRD 153 Computer Design Tech II 1 4 3
GRD 131 Illustration I 1 3 2
ENG 114 Professional Research and Reporting 3 0 3
Elective – ART 3
Total 15

Spring Semester 2
GRD 242 Graphic Design IV 2 4 4
GRD 280 Portfolio Design 2 4 4
Social Science Elective 3 0 3
Total 11

*ART 121 may be substituted for GRD 141

Computer Graphics Certificate C30100

Fall Semester 1
GRD 151 Computer Design Basics 1 4 3
Total 3

Spring Semester 1
GRD 152 Computer Design Tech I 1 4 3
Total 3

Fall Semester 2
GRD 153 Computer Design Tech II 1 4 3
GRD 263 Illustrative Imaging 1 4 3
Total 6

Spring Semester 2
GRD 271 Multimedia Design I 1 3 2
OR
GRD 180 Interactive Design 1 4 3
OR
GRD 275 Animation I 1 3 2
OR
GRD 272 Multimedia Design II 1 3 2
Total 2 - 3

Elective – ART 2

Total 13
Photography Certificate C30100
Day/Evening
Part-Time

This certificate prepares individuals to enter the photography industry as an apprentice in a darkroom or production setting. A basic knowledge of the history of photography, basic camera operation, techniques, and procedures used in composing, lighting, film processing, print development, retouching, and professional presentation will be provided. Course work prepares the students for opportunities in portrait, industrial, commercial, and personal photography.

Spring Semester 1
GRD 160 Photo Fundamentals I 1 4 3
OR
ART 261 Photography I 1 6 3
Total 3

Fall Semester 1
GRD 161 Photo Fundamentals II 1 4 3
OR
ART 262 Photography II 1 6 3
ART 264 Digital Photography I 1 4 3
Total 6

Spring Semester 2
ART 265 Digital Photography II 1 4 3
Total 3

AIR CONDITIONING, HEATING, AND REFRIGERATION

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential systems sizing, and advance comfort systems.

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance and advanced systems.

Curriculum Programs of Study 53
### Degree A35100
#### Evening
#### Part-Time

This schedule will enable a student to enter in fall semester and earn an associate degree in three years.

<table>
<thead>
<tr>
<th>CLASS</th>
<th>LAB</th>
<th>CREDIT</th>
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<tbody>
<tr>
<td><strong>Fall Semester 1</strong></td>
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<tr>
<td>AHR 110 Introduction to Refrigeration</td>
<td>2</td>
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<td>AHR 111 HVACR Electricity</td>
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<td>2</td>
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<tr>
<td>ACA 111 College Student Success</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>9</strong></td>
</tr>
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| **Spring Semester 1** | | |
| AHR 112 Heating Technology | 2 | 4 |
| AHR 133 HVAC Servicing | 2 | 6 |
| **Total** | | **8** |

| **Summer Session 1** | | |
| AHR 113 Comfort Cooling | 2 | 4 |
| AHR 180 HVACR Customer Relations | 1 | 0 |
| MAT 140 Survey of Mathematics | 3 | 0 |
| **Total** | | **8** |

| **Fall Semester 2** | | |
| AHR 140 All-Weather Systems | 1 | 3 |
| AHR 114 Heat Pump Technology | 2 | 4 |
| ENG 111 Expository Writing | 3 | 0 |
| **Total** | | **9** |

| **Spring Semester 2** | | |
| AHR 130 HVAC Controls | 2 | 2 |
| AHR 210 HVAC Controls | 2 | 2 |
| ISC 121 Envir Health & Safety | 1 | 2 |
| **Total** | | **8** |

| **Summer Session 2** | | |
| AHR 211 Residential System Design | 2 | 2 |
| ENG 112 Argument Based Research | 3 | 0 |
| **Total** | | **6** |

| **Fall Semester 3** | | |
| AHR 212 Advanced Comfort Systems | 2 | 4 |
| AHR 215 Commercial HVAC Controls | 1 | 3 |
| Humanities/Fine Arts Elective | 3 | 0 |
| **Total** | | **9** |

### Diploma D35100
#### Day

This schedule will enable a student to enter in fall semester and earn a diploma in three semesters.

<table>
<thead>
<tr>
<th>CLASS</th>
<th>LAB</th>
<th>CREDIT</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall Semester 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHR 110 Introduction to Refrigeration</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>AHR 111 HVACR Electricity</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ACA 111 College Student Success</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

| **Spring Semester 1** | | |
| AHR 112 Heating Technology | 2 | 4 |
| AHR 133 HVAC Servicing | 2 | 4 |
| MAT 140 Survey of Mathematics | 3 | 0 |
| **Total** | | **15** |

| **Summer Session 1** | | |
| AHR 130 HVAC Controls | 2 | 2 |
| AHR 140 All-Weather Systems | 1 | 3 |
| ENG 102 Applied Communications II | 3 | 0 |
| **Total** | | **8** |

### Diploma D35100
#### Evening

This schedule will enable a student to enter in fall semester and earn a diploma in two years.

<table>
<thead>
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<tr>
<td>AHR 110 Introduction to Refrigeration</td>
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<td>6</td>
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<tr>
<td>AHR 111 HVACR Electricity</td>
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<td><strong>Total</strong></td>
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| **Spring Semester 1** | | |
| AHR 112 Heating Technology | 2 | 4 |
| AHR 133 HVAC Servicing | 2 | 6 |
| **Total** | | **8** |
## Summer Session 1

<table>
<thead>
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<th>Course Name</th>
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<tbody>
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<td>AHR 180</td>
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<td>AHR 114</td>
<td>Heat Pump Technology</td>
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<tr>
<td>ENG 102</td>
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## Spring Semester 2

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### Certificate C35100

**Full-Time/Part-Time**

Students wishing to complete any of the various certificates listed below must take those courses whenever they come up in the rotation of the standard associate degree program for either day or evening sessions. More than one semester may be required to complete the certificate desired and semesters may not be back to back.

#### Refrigeration Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
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<tr>
<td>AHR 111</td>
<td>HVAC Electricity</td>
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<td>AHR 250</td>
<td>HVAC System Diagnostics</td>
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<td>HVAC Controls</td>
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#### Heat Pumps

<table>
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<th>Class</th>
<th>Lab</th>
<th>Credit</th>
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</thead>
<tbody>
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<td>AHR 110</td>
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<td>5</td>
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<tr>
<td>AHR 111</td>
<td>HVAC Electricity</td>
<td>2</td>
<td>2</td>
<td>3</td>
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<tr>
<td>AHR 114</td>
<td>Heat Pump Technology</td>
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#### Controls

<table>
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<th>Credit</th>
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<tr>
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#### Comfort Cooling

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#### Servicing

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<th>Course Name</th>
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<th>Credit</th>
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</table>

#### Heating Technology

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Class</th>
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<tbody>
<tr>
<td>AHR 112</td>
<td>Heating Technology</td>
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<td>4</td>
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<tr>
<td>AHR 111</td>
<td>HVAC Electricity</td>
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<td>2</td>
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<td>AHR 240</td>
<td>Hydronic Heating</td>
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<td>AHR 114</td>
<td>Heat Pump Technology</td>
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<td><strong>Total</strong></td>
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**Note:** Requires AHR 110 or previous knowledge of basic refrigeration.

#### All-Year Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
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<tbody>
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<td>AHR 112</td>
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<td>AHR 113</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>AHR 114</td>
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<td><strong>Total</strong></td>
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</table>

**Note:** Requires AHR 110 or previous knowledge of basic refrigeration.

### Certificate C35100

**Fast Track**

**Full-Time**

Students on the fast track can complete a certificate in eight weeks. There are two fast track sessions offered in the fall. Fast Track Session I is offered the first eight weeks of the semester and Fast Track Session II is offered the last eight weeks of the semester.

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
<td>Intro to Refrigeration</td>
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<tr>
<td>AHR 111</td>
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<td>3</td>
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<td>AHR 113</td>
<td>Comfort Cooling</td>
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<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>12</strong></td>
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</tbody>
</table>
ASSOCIATE DEGREE NURSING

The Associate Degree Nursing curriculum provides individuals with the knowledge and the skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse’s role as provider of nursing care, as manager of care, as a member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a registered nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

Students with a felony conviction may have limited certification and employment opportunities.

<table>
<thead>
<tr>
<th>Degree A45100</th>
<th>Day/Evening/Weekend</th>
<th>Full-Time/Part-Time (Related)</th>
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<tr>
<td>NUR 110 Nursing I</td>
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<tr>
<td>*BIO 165 Anatomy &amp; Physiology I</td>
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<tr>
<td>*PSY 150 General Psychology</td>
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<td>NUR 118 Nutrition/Diet Therapy</td>
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<td><strong>Spring Semester 1</strong></td>
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<td>NUR 120 Nursing II</td>
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<td>*PSY 241 Developmental Psychology</td>
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<td>*BIO 166 Anatomy &amp; Physiology II</td>
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</table>

- Students eligible to apply for certification as Nurse Aide II at end of second semester
- Students eligible to apply to take the Licensed Practical Nurse exam at end of third semester

*Courses may be taken before entering the program.

ASSOCIATE IN ARTS

The Associate in Arts degree shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of college transfer courses.

Courses are approved for transfer through the Comprehensive Articulation Agreement. Courses may also transfer through bilateral agreements between institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions.

<table>
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<th>Degree A10100</th>
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**Note:** Prerequisites must be satisfied before taking ENG 111 and MAT 161.

<table>
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<tr>
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### Fall Semester 2

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<td>Humanities Elective (9)</td>
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<tr>
<td>Free Elective (10)</td>
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### Spring Semester 2

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1. Students taking two or more semesters of developmental English or reading must take ACA 115 in lieu of ACA 111.
2. Select one sequence: HIS 111 & HIS 112 or HIS 131 & HIS 132
3. Select two of the following: BIO 111, BIO 112, BIO 120, BIO 140 & BIO 140A, CHM 151, CHM 152, PHY 151, PHY 152, BIO 110, CHM 131, PHY 110. Credit cannot be earned for the following combinations: BIO 110 & BIO 111; CHM 131 & CHM 151; PHY 110 & PHY 151.
4. Select one: ART 111 or MUS 110 or MUS 113 or ART 114 or ART 115
5. Select one of the following: ENG 131, ENG 233, ENG 243.
6. Select one: MAT 162 (if MAT 161 has been completed) MAT 151 or MAT 165 or CIS 110, CIS 115, MAT 263.
7. Select college transfer math or science courses not previously taken.
8. Select 2 courses from different subject areas: ECO 251, GEO 111 or GEO 130, POL 110 or POL 120, PSY 150, SOC 210.
10. Must be a college transfer course not required or previously taken.

### Fall Semester 1

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Note: Prerequisites must be satisfied before taking ENG 111 and MAT 161.

### Spring Semester 1

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(1) Students taking two or more semesters of developmental English or reading must take ACA 115 in lieu of ACA 111.
2. Select 2 courses from different subject areas: ECO 251, GEO 111 or GEO 130, POL 110 or POL 120, PSY 150, SOC 210.
3. Select one sequence: HIS 111 & HIS 112 or HIS 131 & HIS 132
4. Select one: MAT 162 (if MAT 161 has been completed) MAT 165, CIS 110, MAT 151, CIS 115, MAT 263.
5. Select one sequence: HIS 111 & HIS 112 or HIS 131 & HIS 132.
6. Select two of the following: BIO 111, BIO 112, CHM 151, CHM 152, PHY 151, PHY 152, BIO 110, BIO 140 & 140A, BIO 120, CHM 131, PHY 110. Credit cannot be earned for the following combinations: BIO 110 & BIO 111; CHM 131 & CHM 151; PHY 110 & PHY 151.
(7) Select one: PHI 210, REL 110, REL 211, REL 212, SPA 111, PHI 215, SPA 112.
(8) Select one of the following: ENG 131, ENG 233, ENG 243
(9) Must be a college transfer course not required or previously taken. Free electives: MUS 111, MUS 121, MUS 122, MUS 131, MUS 132, MUS 133, MUS 134, MUS 141, MUS 142, MUS 151, MUS 152, MUS 161, MUS 162, MUS 170, MUS 217, MUS 221, MUS 222, MUS 231, MUS 232, MUS 233, MUS 234, MUS 241, MUS 242, MUS 261, MUS 262, & MUS 280.

ASSOCIATE IN ARTS – BUSINESS ADMINISTRATION

The Associate in Arts – Business Administration degree shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of college transfer courses.

This program is designed for students who intend to major in Business Administration upon transferring to a senior college or university. Courses are approved for transfer through the Comprehensive Articulation Agreement.

Students who successfully complete this course of study and meet the requirements for admission to the university may be eligible to apply for admission as juniors.

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.

Degree A1010B Day Full-Time/Part-Time

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Note: Prerequisites must be satisfied prior to taking ENG 111 and MAT 161 or higher.

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ASSOCIATE IN FINE ARTS

The Associate in Fine Arts curriculum provides the basic course work in humanities/fine arts, English, mathematics, and social sciences with additional concentration in fine arts.

Graduates should have a sound basic knowledge of the fine arts in the area of study selected: art or music. Upon successful completion of a college transfer degree option, students are prepared to continue their education as juniors in their field of study.

The Associate in Fine Arts program is part of the Comprehensive Articulation Agreement which allows graduates of this program to transfer to one of the constituent institutions of the University of North Carolina system. Graduates completing the Associate of Fine Arts degree will have demonstrated the ability to achieve academic and other learning goals in their study area enhancing employment opportunities.
### Art Degree A1020A

**Day/Evening**

**Full-Time/Part-Time**

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### Music Degree A1020D

**Day/Evening**

**Full-Time/Part-Time**

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(1) Select 2 courses from different subject areas: GEO 111 or GEO 130, POL 110 or POL 120, PSY 150, SOC 210.

(2) Students taking two or more developmental courses should take ACA 115 in lieu of ACA 111.

(3) Select 1 course: BIO 111, CHM 151, or PHY 151.
(4) Select 1 course: HIS 111, HIS 112, HIS 121, HIS 122, HIS 131, HIS 132.
(5) Select 1 course: ENG 233 or Eng 243.
(6) Select 1 course: MUS 111, MUS 113, MUS 170, MUS 217, MUS 280
(7) Select 4 courses: MUS 131, MUS 132, MUS 231, MUS 232, MUS 141, MUS 142, MUS 241, MUS 242, MUS 133, MUS 134, MUS 233, MUS 234.

ASSOCIATE IN GENERAL EDUCATION

The Associate in General Education curriculum is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth, and development.

Course work includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers will be provided.

Through these skills, students will have a sound base for lifelong learning. Graduates are prepared for advancements within their field of interest and become better qualified for a wide range of employment opportunities.

### Degree A10300

#### Day Full-Time

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**Note:** Prerequisites must be satisfied before taking ENG 111 and math electives.

#### Spring Semester 1

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### Degree A10300

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**Note:** Prerequisites must be satisfied before taking ENG 111 and math electives.

#### Spring Semester 1

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<th>Lab</th>
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### Fall Semester 2

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Spring Semester 2
COM 231 Public Speaking  3  0  3
Humanities/Fine Arts Elective (7)  3  0  3
Free Elective (3)  3  0  3
HEA 110  Personal Health & Wellness  3  0  3
Total  12

Fall Semester 3
History Elective (8)  3  0  3
Free Electives (3)  9  0  9
Total  12

Spring Semester 3
History Elective (9)  3  0  3
Free Electives (3)  8  0  8
Total  11

(1) Students taking two or more semesters of developmental English or reading must take ACA 115 in lieu of ACA 111.

(2) Select one: MAT 140 or MAT 161.

(3) Select free electives from general education and professional courses not required in this curriculum.

(4) Select one: ENG 113 or ENG 114.

(5) Select one: BIO 111, CHM 151, CHM 131 & CHM 131A.

(6) Select one: ART 111, MUS 110, MUS 113.

(7) Select one: ENG 233, ENG 243, ENG 272.

(8) Select one: HIS 121 & HIS 122 or HIS 131 & HIS 132.

(9) Complete the history sequence previously selected.

ASSOCIATE IN SCIENCE

The Associate in Science degree shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of college transfer courses.

Courses are approved for transfer through the Comprehensive Articulation Agreement. Courses may also transfer through bilateral agreement between institutions. Courses offered through bilateral agreements may not transfer to all receiving institutions.

Degree A10400
Day Full-Time

Fall Semester 1
ENG 111  Expository Writing  3  0  3
ACA 111  College Student Success (1)  1  0  1
HEA 110  Personal Health/Wellness  3  0  3
Math Elective (5)  3  2  4
History Elective (2)  3  0  3
Science Elective (3)  3  3  4
Total  17-18

Note: Prerequisites must be satisfied before taking ENG 111 and MAT 171.

Spring Semester 1
ENG 113  Literature Based Research  3  0  3
Humanities/Fine Arts Elective (4)  3  0  3
History Elective (2)  3  0  3
Science Elective (3)  3  3  4
Math Elective (6)  3  2  4
Physical Education Elective  0  2  1
Total  17-18

Fall Semester 2
COM 231 Public Speaking  3  0  3
Math or Science Elective (6, 10)  3  0-3  3-4
Math or Science Elective (6, 10)  3  0-3  3-4
Social/Behavioral Science Elective (7)  3  0  3
Humanities/Fine Arts Elective (8)  3  0  3
Physical Education Elective  0  2  1
Total  16-18

Spring Semester 2
Literature Elective (9)  3  0  3
Social Behavioral Science Elective (7)  3  0  3
Lit/Hum/Fine Arts Elective (4, 8, 9)  3  0  3
Math or Science Elective (6, 10)  3  0-3  3-4
Math or Science Elective (6, 10)  3  0-3  3-4
Total  15-17

(1) Students taking two or more semesters of developmental English or reading must take ACA 115 in lieu of ACA 111.

(2) Select one sequence: HIS 111 & HIS 112 or HIS 131 & HIS 132.

(3) Select one sequence: BIO 111 & BIO 112 or CHM 151 & CHM 152 or PHY 151 & PHY 152.

(4) Select one: ART 111 or MUS 110 or MUS 113.

(5) Select one: MAT 171, MAT 172, MAT 175, MAT 271, MAT 272, MAT 273, MAT 285.

(6) Select from: MAT 172, MAT 175, MAT 151, MAT 271, MAT 272, MAT 273, MAT 285, CIS 110, CIS 115.

(7) Select 2 courses from different subject areas: ECO 251, GEO 111 or GEO 130, POL 110 or POL 120, PSY 150, SOC 210.

(8) Select one: PHI 210, REL 110, REL 211, REL 212, SPA 111, PHI 215, SPA 112.

(9) Select one: ENG 131, ENG 233, ENG 243.

(10) Select from: BIO 111, BIO 112, CHM 151, CHM 152, PHY 151, PHY 152, BIO 120, BIO 165, BIO 166, BIO 175, BIO 140 & BIO 140A.
The semester-by-semester breakdown is a blueprint for guiding students who intend to major in biology or biology education. Students who successfully complete this course of study and who meet the requirements for admission to the university may be eligible to apply for admission to the major with junior standing.

### Degree A1040A

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<tr>
<td><strong>Fall Semester 1</strong></td>
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<tr>
<td>ENG 111 Expository Writing</td>
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<tr>
<td>BIO 111 General Biology I</td>
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*Note: Placement required before taking MAT 271 and ENG 111.*

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(1) Select from two different disciplines: ECO 251, ECO 252, POL 110, POL 120, PSY 150, SOC 210.
(2) Select from two different disciplines: ART 111, ART 114, MUS 110, MUS 113, PHI 210, PHI 215, PHI 240, REL 110, REL 210, REL 211, REL 212, SPA 111, SPA 112.
(3) HIS 111, HIS 112, HIS 131, HIS 132.
(4) ENG 131, ENG 233, ENG 243.

### BASIC LAW ENFORCEMENT TRAINING

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcohol beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Students must successfully complete and pass all units of study which include the certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs’ Education and Training Standards Commission to receive a certificate.

### Certificate C55120

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<td>CJC 100 Basic Law Enforcement Training</td>
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<tr>
<td><strong>Spring Semester</strong></td>
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<tr>
<td>CJC 100 Basic Law Enforcement Training</td>
<td>8 30 18</td>
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### BIOPROCESS TECHNOLOGY

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.
### Degree A50440

**Day**

**Full-Time**

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<td>CIS 110 Intro to Computers</td>
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<td>MAT 161 College Algebra</td>
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<td>OR</td>
<td>MAT 121 Algebra &amp; Trigonometry</td>
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<td>CHM 131 Intro to Chemistry</td>
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<td>BIO 110 Principles of Biology</td>
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<td>BIO 175 General Microbiology</td>
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<td>ISC 121 Environmental Health &amp; Safety</td>
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### Degree A25120

**Day/Evening**

**Full-Time**

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<td>BUS 115 Business Law I</td>
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<td>BUS 110 Introduction to Business</td>
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<td>CIS 111 Basic PC Literacy</td>
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<td>ECO 251 Principles of Microeconomics</td>
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<td>ACC 131 Federal Income Taxes</td>
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<td>CIS 126 Graphic Software Introduction</td>
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<td>MKT 220 Advertising</td>
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**Electives:**
- ACC 149 Intro to Acc Spreadsheets
- ACC 140 Payroll Accounting
- ACC 150 Acct Software Appl
- COE 112 Co-op Work Experience

### BUSINESS ADMINISTRATION

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

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communications, 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.

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**CURRICULUM PROGRAMS OF STUDY 63**
The Cardiovascular Sonography curriculum provides the individual with the knowledge and skills necessary to acquire, process, and evaluate the human heart and vascular structures. A cardiovascular sonographer uses high frequency sound waves to produce images of the heart and vascular structures.

Course work includes effective communication and patient care skills combined with a knowledge of physics, human anatomy, physiology, and pathology, all of which are essential to obtaining high quality sonographic images.

Graduates may be eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in cardiovascular physics, vascular physics, vascular technology, and adult echocardiography. Graduates may find employment in hospitals, physicians’ offices, mobile services, and educational institutions.

Students with a felony conviction may have limited certification and employment opportunities.
COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING

TheComputed Tomography and Magnetic Resonance Imaging Technology curriculum, a specialty for radiographers, prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes. **Individuals entering this curriculum must be registered or registry eligible radiologic technologists by the ARRT.**

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced Level testing in Computed Tomography and/or Magnetic Resonance Imaging examinations. They may find employment in facilities that perform these imaging procedures.

This program is offered in collaboration with Edgecombe Community College and Johnston Community College.

**Students with a felony conviction may have limited certification and employment opportunities.**

Diploma D45200
Day
Full-Time/Part-Time

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<tr>
<td>CAT 210</td>
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| **Spring & Summer Semester** | | | |
| MRI 210 | MRI Physics and Equipment | 3 | 0 | 0 | 3 |
| MRI 211 | MRI Procedures | 4 | 0 | 0 | 4 |
| MRI 231 | MRI Clinical Practicum | 0 | 0 | 33 | 11 |
| †Behavioral/Social Sciences Elective | 3 | 0 | 0 | 3 |
| **Total** | | | 21 |

*The above general education credits may be transferred from an accredited radiography program.
†Select 3 SHC from the following prefixes: ECO, GEO, HIS, POL, PSY, SOC.

Certificate C45200
Day
Full-Time/Part-Time

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<th>CREDIT</th>
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Degree A25130
Day/Evening
Full-Time/Part-Time

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<td>ENG 111</td>
<td>Expository Writing</td>
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<td>CIS 111</td>
<td>Basic PC Literacy</td>
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<tr>
<td>CIS 130</td>
<td>Survey of Operating Systems</td>
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</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td>2</td>
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<tr>
<td>CIS 172</td>
<td>Intro to the Internet</td>
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<td>MAT 140</td>
<td>Survey of Mathematics</td>
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<p>| <strong>Spring Semester 1</strong> | | |
| CSC 139 | Visual Basic Programming | 2 | 3 | 3 |
| CIS 152 | Database Concepts &amp; Appl | 2 | 2 | 3 |
| ENG 112 | Argument-Based Research | 3 | 0 | 3 |
| NET 110 | Data Communication/Networking | 2 | 2 | 3 |
| Social/Behavioral Science Elective | 3 | 0 | 3 |
| <strong>Total</strong> | | | 15 |</p>
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<tr>
<th>Summer Session 1</th>
<th>Hotewk Trzoublock &amp; Repair Certificate C25130 Day/Evening Part-Time</th>
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<tbody>
<tr>
<td>CSC 239 Advanced Visual Basic</td>
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<tr>
<td>CSC 160 Intro to Internet Programming</td>
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<th>C++ Programming Certificate C25130 Day/Evening Part-Time</th>
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<tr>
<td>INT 140 Web Development Tools</td>
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<td>CSC 141 Visual C++ Programming</td>
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<td>ISC 131 Quality Management</td>
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<td>ITN 170 Intro to Internet Databases</td>
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<tr>
<td>BUS 260 Business Communications</td>
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<tr>
<td>CIS 111 Basic PC Literacy</td>
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<tr>
<td>CIS 215 Hardware Installation/Maintenance</td>
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<td>NET 110 Data Communications/Networking</td>
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<tr>
<td>CIS 148 Operating Systems – Windows NT</td>
<td>2 2 3</td>
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<tr>
<td>CIS 216 Software Installation/Maintenance</td>
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| Summer Session 1 | | |
|------------------|---------------------------------------------------------------------|
| CSC 143 Object-Oriented Programming | 2 3 3 |
| **Total** | **3** |

This certificate is designed for individuals interested in acquiring advanced technical skills and knowledge to maintain and repair personal computers. Students gain skills in buying parts, upgrading, building, and configuring personal computers. Major hands-on topics include documentation, troubleshooting techniques, PC architectures, disk drives and controller cards, memory management, add-on boards, and communication devices.

<table>
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<th>Fall Semester 1</th>
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<tr>
<td>CIS 111 Basic PC Literacy</td>
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<tr>
<td>CIS 115 Intro to Programming &amp; Logic</td>
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<tr>
<td>CSC 239 Advanced Visual BASIC</td>
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</table>
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 which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetc Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

### Diploma D55140

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>Fall</td>
<td>COS 111</td>
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<td>COS 112</td>
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<td>ENG 102</td>
<td>Applied Communications II</td>
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<tr>
<td>Spring</td>
<td>COS 113</td>
<td>Concepts II</td>
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<td>COS 114</td>
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<td>*PSY 135</td>
<td>Group Processes</td>
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* CIS 110 – Introduction to Computers may be substituted for this course.

### Certificate C55140

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<td>Spring</td>
<td>COS 111B</td>
<td>Concepts IB</td>
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<tr>
<td>Summer</td>
<td>COS 115A</td>
<td>Concepts III A</td>
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<td>COS 116A</td>
<td>Salon III A</td>
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<tr>
<td>Fall</td>
<td>COS 113A</td>
<td>Concepts II A</td>
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<td>COS 114A</td>
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### CRIMINAL JUSTICE TECHNOLOGY

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system’s role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

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#### Degree A55180

| Fall Semester 1 | ENG 111 Expository Writing | 3 | 0 | 3 |
|                 | PSY 150 General Psychology  | 3 | 0 | 3 |
|                 | CJC 111 Intro to Criminal Justice | 3 | 0 | 3 |
|                 | CJC 131 Criminal Law         | 3 | 0 | 3 |
|                 | *Political Science           | 3 | 0 | 3 |
|                 | ACA 111 College Student Success | 1 | 0 | 1 |
| **Total**       |                             | 10 |    |    |

| Spring Semester 1 | ENG 114 Professional Research & Rep | 3 | 0 | 3 |
|                  | MAT 140 Survey of Mathematics      | 3 | 0 | 3 |
|                  | †Psychology                        | 3 | 0 | 3 |
|                  | *Political Science                 | 3 | 0 | 3 |
|                  | CJC 141 Corrections                | 3 | 0 | 3 |
| **Total**        |                             | 12 |    |    |

**Degree A55180**

<table>
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| Fall Semester 1 | ENG 111 Expository Writing | 3 | 0 | 3 |
|                 | PSY 150 General Psychology  | 3 | 0 | 3 |
|                 | CJC 111 Intro to Criminal Justice | 3 | 0 | 3 |
| **Total**       |                             | 10 |    |    |

| Spring Semester 1 | ENG 114 Professional Research & Rep | 3 | 0 | 3 |
|                  | CJC 141 Corrections                | 3 | 0 | 3 |
|                  | †Psychology                        | 3 | 0 | 3 |
| **Total**        |                             | 12 |    |    |
The Early Childhood Education curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with 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 child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

Prior to the work experience assignment, the student shall furnish a statement, signed by a licensed physician that indicates the student is emotionally and physically fit to care for children. An initial test showing each student to be free of active tuberculosis is required. Effective January 1, 1996, the General Assembly passed legislation requiring all child care providers to receive a criminal history records check. All students prior to the work experience must submit to the ECH director a Certified Criminal History Check from the Clerk of Superior Court's office and a completed fingerprint card for submission to the State Bureau of Investigation (SBI) for criminal history check. (Section 2700 of Subchapter 3U-Child Day Care Rules on Criminal Records Check).

Students with a felony conviction may have limited certification and employment opportunities and may not be able to complete the Early Childhood Associate degree.

Program requirements are subject to change.
### Spring Semester 1

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>OR ENG 113</td>
<td>Literature-Based Research</td>
<td>3</td>
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<tr>
<td>EDU 145</td>
<td>Child Development II</td>
<td>3</td>
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<td>‡Business/Prof or Social/Behavioral Sci Elective</td>
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<td>EDU 131</td>
<td>Child, Family &amp; Community</td>
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<tr>
<td>EDU 162</td>
<td>Early Exp/Pros Teachers</td>
<td>1</td>
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<tr>
<td>EDU 251</td>
<td>Exploration Activities</td>
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<tr>
<td>EDU 234</td>
<td>Infants, Toddlers, &amp; Twos</td>
<td>3</td>
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<td>EDU 261</td>
<td>Early Childhood Administration</td>
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<tr>
<td>EDU 259</td>
<td>Curriculum Planning</td>
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<td>COE 111</td>
<td>Co-op Work Experience I</td>
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<td>EDU 271</td>
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### Spring Semester 2

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<td>COE 121</td>
<td>Co-op Work Experience II</td>
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<td>EDU 146</td>
<td>Child Guidance</td>
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<td>EDU 153</td>
<td>Health, Safety and Nutrition</td>
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<td>EDU 280</td>
<td>Language &amp; Literacy Experiences</td>
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Notes for Associate Degree, Diploma, and Certificates:
- Summer curriculum option may be available.
- Students enrolled in ECH telecourse and internet classes should follow guidelines on checklist available from the ECH Department or access the checklist from the semester schedule online.
- All course prerequisites must be satisfied.
- Students needing two or more semesters of developmental English and/or reading must take ACA 115 in lieu of ACA 111.

### Diplma D55220

**Day Full-Time**

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### Spring Semester 1

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<td>ENG 113 Literature-Based Research</td>
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<td>EDU 144 Child Development I</td>
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*Faculty advisor will have a list of these electives.

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- Students needing two or more semesters of developmental English and/or reading must take ACA 115 in lieu of ACA 111.

### Certificate C55220

**Day/Evening**

**Full-Time/Part-Time**

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### Early Childhood School-Age Certificate

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### Lead Teacher's Credential

**Day/Evening**

**Full-Time/Part-Time**

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Spring Semester 1
†EDU 113 Family/Early Child Cred 2 0 0 2
Offered by demand. Check with program chair
Total 2
*EDU 111 is offered the 1st eight weeks of the semester
†EDU 112 & 113 are offered the 2nd eight weeks of the semester

Administrator’s Credential
Day/Evening
Part-Time

Fall Semester 1
EDU 261 Early Childhood Administration I 2 0 2
Total 2

Spring Semester 1
EDU 262 Early Childhood Administration II 3 0 3
Total 3

ESTHETICS TECHNOLOGY

The Esthetics Technology curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment, which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional Esthetics Technology, business/human relations, product knowledge, and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and cosmetic/skin care salons, as a platform artist, and in related businesses.

Certificate C55230
Day/Evening
Full-Time

Fall Semester
COS 119 Esthetics Concepts I 2 0 2
COS 120 Esthetics Salon I 0 18 6
Total 8

Spring Semester
COS 125 Esthetics Concepts II 2 0 2
COS 126 Esthetics Salon II 0 18 6
Total 8

GENERAL OCCUPATIONAL TECHNOLOGY

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade their skills and to earn an associate degree by taking courses suited for their occupational interests and/or needs.

This curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree-level courses offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

Degree A55280
Day/Evening
Full-Time/Part-Time

Fall Semester 1
ENG 111 Expository Writing 3 0 3
ACA 111 College Student Success 1 0 1
Natural Science 3 0 3
Electives 10
Total 17

Spring Semester 1
ENG 112 Argument-Based Research 3 0 3
Social/Behavioral Science Elective 3 0 3
Electives (10 hours) 10
Total 16

Fall Semester 2
Humanities/Fine Art Elective 3 0 3
Electives (13 hours) 13
Total 16

Spring Semester 2
Humanities/Fine Art Elective 3 0 3
Electives (13 hours) 13
Total 16

Electives - courses selected from approved college curricula.
GREENHOUSE AND GROUNDS MAINTENANCE

The Greenhouse and Grounds Maintenance curriculum provides individuals from special populations with experience in general horticultural principles and applications. This training provides a setting that is conducive to students' vocational and personal growth.

Course work includes extensive hands-on experience in identification and use of horticultural materials, greenhouse production, nursery production, landscape and grounds maintenance practices, and other related topics.

Graduates should qualify for entry-level positions in the horticultural industry and related fields.

Certificate C15220
Day Full-Time

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HEAVY EQUIPMENT AND TRANSPORT TECHNOLOGY

The Heavy Equipment and Transport Technology curriculum is designed to prepare individuals with the knowledge and skills needed to service, troubleshoot, and repair medium and heavy-duty vehicles.

Course work includes the purpose, construction features, and principles of operation of medium and heavy-duty vehicles.

Graduates of the curriculum should qualify for entry-level employment opportunities in a dealership, fleet shop, or independent garage as a technician. Graduates that have met the work experience requirement should also be prepared to take the ASE certification exam.

Degree A60240
Day Full-Time

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### Diploma D60240
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## Industrial Pharmaceutical Technology

The Industrial Pharmaceutical Technology curriculum is designed to prepare individuals for employment in pharmaceutical manufacturing and related industries. Major emphasis is placed on manufacturing processes and quality assurance procedures.

Course work includes general education, computer applications, biology, chemistry, industrial safety, and an extensive array of very detailed pharmaceutically specific classes.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to, the following: chemical quality assurance, microbiological quality assurance, product inspection, documentation review, manufacturing, and product/process validation.

## Degree A20180

The Industrial Pharmaceutical Technology program is offered in collaboration with Wake Technical Community College. The first two semesters will be offered at Johnston Community College; then the student will transfer to Wake Technical Community College for the last two semesters.
The Internet Technologies curriculum is designed to prepare graduates for employment with organizations that use computers to disseminate information via the Internet internally, externally, and/or globally. The curriculum will prepare students to create and implement these services.

Course work includes computer and Internet terminology and operations, logic, operating systems, database and data communications/networking, and related topics. Studies will provide opportunities for students to implement, support, and customize industry-standard Internet technologies. Macromedia and Adobe web design applications are provided in this program.

Graduates should qualify for career opportunities as webmasters, Internet and intranet administrators, Internet applications specialists, Internet programmers, and Internet technicians. Government institutions, industries, and other organizations employ individuals who possess the skills taught in this curriculum.

### Degree A25290

#### Day/Evening

#### Full-Time/Part-Time

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### Cisco Networking Academy™ Program

#### Fundamentals of Web Design Certificate Program C25290A

Online and/or Day/Evening

#### Full-Time/Part-Time

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*Courses currently taught online. Course work for all classes is available online in Blackboard and can be accessed via the WWW.

†Cisco Fundamentals of Web Design Foundation Course.
‡Cisco Fundamentals of Web Design Foundation Course cannot be taken online.
Macromedia Web Design Certificate Program
C25290B
Day/Evening
Full-Time/Part-Time

Summer Session 1
*CIS 172  Intro to the Internet  2  3  3
Total  3

Fall Semester 1
*CIS 172  Intro to the Internet  2  3  3
ITN 140  Web Development Tools  2  2  3
Total  3 or 6

Spring Semester 1
ITN 130  Web Site Management  2  2  3
ITN 110  Intro to Web Graphics  2  2  3
Total  6

Summer Session 2
CSC 160  Intro to Internet Programming  2  2  3
ITN 180  Active Server Programming  2  2  3
Total  6

*All courses are taught during designated semesters EXCEPT CIS 172 – Intro to the Internet. CIS 172 may be taken during either the summer or fall semesters.

LANDSCAPE GARDENING

The Landscape Gardening curriculum emphasizes intensive, practical, hands-on training in applied horticulture to reinforce classroom lecture on theory and technique.

Course work includes plant propagation, greenhouse and nursery plant culture, turf management, plant identification, arboriculture, diseases and pest of plants, and landscape planning, maintenance, and construction.

Graduates will be prepared for employment opportunities in applied horticulture related to landscape development and maintenance for residential and commercial operations. Graduates should be prepared to take the North Carolina Certified Plant Professional Examination and the North Carolina Pesticide Applicator’s Examination.

CSC 160  Intro to Internet Programming  2  2  3
ITN 180  Active Server Programming  2  2  3
Total  6

*LSG 121  Fall Gardening Laboratory  0  6  2
*LSG 111  Basic Landscape Techniques  2  0  2
*HOR 134  Greenhouse Operations  2  2  3
ACA 111  College Student Success  1  0  1
Total  7

Spring Semester 1
*LSG 122  Spring Gardening Lab  0  6  2
†HOR 160  Plant Materials I  2  2  3
*TRF 110  Introduction to Turfgrass  3  2  4
Total  9

Summer Session 1
*LSG 123  Summer Gardening Lab  0  6  2
Total  2

Fall Semester 2
*COE 111  LSG Co-Op Work Experience  0  10  1
†HOR 164  Horticultural Pest Management  2  2  3
†HOR 162  Applied Plant Science  2  2  3
ENG 111  Expository Writing  3  0  3
Total  10

Spring Semester 2
MAT 140  Survey of Mathematics  3  0  3
ENG 114  Professional Research & Writing  3  0  3
*HOR 114  Landscape Construction  2  2  3
Total  9

Summer Session 2
*COE 121  LSG Co-Op Work Experience II  0  10  1
*HOR 260  Plant Materials II  2  2  3
Total  4

Fall Semester 3
*COE 131  LSG Co-Op Work Experience III  0  10  1
HOR 124  Nursery Operations  2  3  3
HOR 225  Nursery Production  2  3  3
CIS 111  Basic PC Literacy  1  2  2
Total  9

Spring Semester 3
†HOR 168  Plant Propagation  2  2  3
*LSG 231  Landscape Supervision  2  6  4
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CURRICULUM PROGRAMS OF STUDY 77
### Summer Session 3

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*Required LSG Courses
†Transfers to NCSU in collateral agreement

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### Spring Semester 3

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*Required LSG Courses
†Transfers to NCSU in collateral agreement

An AAS degree in landscape gardening transfers entirely to the 2+2 Collateral Program at NC A&T

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### Degree D15260

#### Evening Part-Time

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### Diploma D15260

#### Evening Part-Time

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<th>Class</th>
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*COE 111 LSG Co-Op Work Experience          | 0     | 10  | 1      |
*COE 121 LSG Co-Op Work Experience II       | 0     | 10  | 1      |
*COE 131 LSG Co-Op Work Experience III      | 0     | 10  | 1      |
*HOR 114 Landscape Construction             | 2     | 2   | 3      |
*HOR 134 Greenhouse Operations              | 2     | 2   | 3      |
*LSG 111 Basic Landscape Techniques         | 2     | 0   | 2      |
*LSG 121 Fall Gardening Laboratory          | 0     | 6   | 2      |
### Certificate C15260
#### Day Part-Time

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**Certificate C15260 Evening Part-Time**

Students seeking a certificate must take one “Required” course from the list below and a combination of “Required” and “Other Major Hours” listed for a total of 12 SHC. Note: Students can only apply a maximum of 2 COE hours toward a LSG Certificate.

### Required Courses:
Certificate students MUST have one of these
* COE 111 LSG Co-Op Work Experience 0 10 1
* COE 121 LSG Co-Op Work Experience II 0 10 1
* COE 131 LSG Co-Op Work Experience III 0 10 1
* HOR 114 Landscape Construction 2 2 3
* HOR 134 Greenhouse Operations 2 2 3
* LSG 111 Basic Landscape Techniques 2 0 2
* LSG 121 Fall Gardening Laboratory 0 6 2
* LSG 122 Spring Gardening Lab 0 6 2
* LSG 123 Summer Gardening Lab 0 6 2
* LSG 231 Landscape Supervision 2 6 4
* TRF 110 Introduction to Turfgrass 3 2 4

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<td>MAC 151 Machining Calculations</td>
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### Summer Session 1
- MAC 113 Machining Technology III 2 12 6
- MAC 122 CNC Turning 1 3 2
- **Total** 8

### Fall Semester 2
- ENG 114 Prof Research and Reporting 3 0 3
  - Humanities/Fine Arts Elective 3 0 3
- MAC 241 Jigs and Fixtures I 2 6 4
- MAC 245 Mold Construction 2 6 4
- **Total** 14

### Spring Semester 2
- MAC 243 Die Making I 2 6 4
  - Social/Behavioral Science Elective 3 0 3
- MEC 231 Comp-Aided Manufact I 1 4 3
- MEC 110 Intro to CAD/CAM 1 2 2
- COE 111 Co-op Work Experience I 0 10 1
- **Total** 13

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### Diploma D50300

#### Day
- **Full-Time**

### Fall Semester
- MAC 131 Blueprint Reading: Machining I 1 2 2
- MAC 111 Machining Technology I 2 12 6
- DFT 119 Basic CAD 1 2 2
- MAC 151 Machining Calculations 1 2 2
- ENG 101/102 Applied Communications 3 0 3
- ACA 111 College Student Success 1 0 1
- **Total** 16

### Spring Semester
- MAC 132 Blueprint Reading: Machining II 1 2 2
- MAC 112 Machining Technology II 2 12 6
- MAC 124 CNC Milling 1 3 2
- CIS 110 Intro to Computers 2 2 3
- WLD 112 Basic Welding Processes 1 3 2
- **Total** 15

### Summer Session
- MAC 113 Machining Technology III 2 12 6
- MAC 122 CNC Turning 1 3 2
- **Total** 8

---

### Fall Semester 1
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- MAC 131 Blueprint Reading: Machining I 1 2 2
- ACA 111 College Student Success 1 0 1
- **Total** 6

### Spring Semester 1
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- MAC 151 Machining Calculation 1 2 2
- **Total** 5

### Summer Session 1
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- DFT 119 Basic CAD 1 2 2
- **Total** 5

### Fall Semester 2
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- MAC 132 Blueprint Reading 1 2 2
- **Total** 5

### Spring Semester 2
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- MAC 124 CNC Milling 1 3 2
- **Total** 5

### Summer Session 2
- MAC 111 to
- MAC 113 selected Machining Tech courses 1 6 3
- MAC 124 CNC Turning 1 3 2
- **Total** 5

---

In order to earn a diploma, the student must pass the related courses listed below. These courses may be scheduled any time convenient for the student when offered by the College. The student should always check with his or her advisor to be sure related courses will count toward the diploma.

Students who wish to take courses only in specific areas may earn a certificate without related courses. Check with advisor to find out what certificates are available and when courses are offered. The student may substitute ENG to gain credit for the first year associate degree during the day schedule.
Plastics is a concentration under the curriculum title of Manufacturing Technology. This curriculum provides training in all aspects of the polymer processing industry, one of today's fastest growing manufacturing technologies. It will prepare individuals for employment by utilizing the latest technologies in both plastics materials and plastics processing.

Course work includes rigorous study of the polymer processing industry, including materials technology, injection molding, extrusion, thermoforming, blow molding, and other related areas. Students will also gain knowledge in machine operation, maintenance, setup, design and research, quality assurance, and safety.

Graduates should qualify for employment in the design and/or production of plastic-related items including such job titles as molding technician, estimator, QC technician, setup technician, or supervisor.

This program is offered in collaboration with Wake, Wayne, Edgecombe, Wilson, and Nash Community Colleges.
### Diploma D5032A
#### Day/Evening
#### Full-Time/Part-Time

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| Certificate C5032A
| Day/Evening
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### MEDICAL ASSISTING

The Medical Assisting curriculum prepares the individual to be a multi-skilled health care professional qualified to perform administrative, clinical, and laboratory procedures.

Course work 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.

Johnston Community College is currently in the process of applying for accreditation with the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Upon accreditation, graduates will be eligible to take the AAMA Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians’ offices, health maintenance organizations, health departments, and hospitals.

**Students with a felony conviction may have limited certification and employment opportunities.** If admitted, students will submit to criminal background checks and random drug screening as directed by affiliating agencies. Clinical agencies reserve the right to deny students access based on criminal background. This denial will result in the inability of the student to successfully complete this program.
**MEDICAL OFFICE ADMINISTRATION**

This curriculum prepares individuals for employment in medical and other health-care related offices. Course work will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

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### Diploma, Degree A45400

#### 1st Level

**Fall Semester**

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**Spring Semester**

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**Summer Session**

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Students may elect to exit with a diploma (48 hours). Requirements for graduates to apply to take the Medical Assisting Certification Exam will have been met at this point.

### 2nd Level

**Fall Semester**

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### Degree A25310

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**CURRICULUM PROGRAMS OF STUDY** 83
The Medical Sonography curriculum provides knowledge and clinical skills in the application of high frequency sound waves to image internal body structures.

Course work includes physics, cross-sectional anatomy, abdominal, introductory vascular, and obstetrical/gynaecological sonography. Competencies are attained in identification of normal anatomy and pathological processes, use of equipment, fetal growth and development, integration of related imaging, and patient interaction skills.

Graduates of accredited programs may be eligible to take examinations in ultrasound physics and instrumentation and specialty examinations administered by the American Registry of Diagnostic Medical Sonographers and find employment in clinics, physicians’ offices, mobile services, hospitals, and educational institutions.

Students with a felony conviction may have limited certification and employment opportunities.
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**Diploma D45440**

Day Full-Time

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**NETWORK ADMINISTRATION AND SUPPORT (Information Systems)**

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities.

Graduates should qualify for positions such as: LAN/PC administrator, microcomputer support specialist, network control operator, communications technician/analyst, network/computer consultant, and information systems specialist. Graduates should be prepared to sit for certification exams, which can result in industry-recognized credentials.

**Degree A2526D**

Day/Evening Full-Time/Part-Time

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**Electives: COE 111, COE 112, CIS 215, CIS 216, ITN 110, CIS 173, NET 122, NET 260, ITN 160.**

### Cisco Certificate A2526D

**Day/Evening**

The Cisco Certification program falls under the Cisco Networking Academy, which prepares students for the CCNA (Cisco Certified Networking Association) Exam. The courses are offered once per semester and must be taken in sequence. Upon completion of four courses, students are eligible to take the CCNA exam through a testing agency.

Prerequisite to enter the program: successful completion of CIS 111 or CIS 110.

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### NUCLEAR MEDICINE TECHNOLOGY

The Nuclear Medicine Technology curriculum provides the clinical and didactic experience necessary to prepare students to qualify as entry-level nuclear medicine technologists.

Students will acquire the knowledge and skills necessary to properly perform clinical procedures. These skills include patient care, use of radioactive materials, operation of imaging and counting instrumentation, and laboratory procedures.

Graduates may be eligible to apply for certification/registration examinations given by the Nuclear Medicine Technology Certification Board and the American Registry of Radiologic Technologists.

**Students with a felony conviction may have limited certification and employment opportunities.**

**Diploma D45460**

**Day**

**Full-Time**

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# OFFICE SYSTEMS TECHNOLOGY

The Office Systems Technology 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 communications, 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.

### Degree A25360

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# PARALEGAL TECHNOLOGY

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 may not practice law, give legal advice, or represent clients in a court of law.

Course work 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.
The Paralegal Technology diploma curriculum is designed for students who have a bachelor's degree or equivalent before entering the program. The Title Searching certificate curriculum is for individuals who are currently employed as a paralegal or are in the real estate business and desire additional skills in this area.

### Degree A25380

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<td>LEX 160</td>
<td>Criminal Law and Procedure</td>
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Electives: LEX 260, LEX 170, ACC 150, ACC 149, LEX 151, CIS 126, ACC 131, LEX 270, OST 236, LEX 214, CIS 152, ACC 140, COE 112

### Degree A25380

#### Evening Part-Time

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<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
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<tr>
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<td>LEX 250</td>
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<td>OST 136</td>
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<td>LEX 160</td>
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Electives (Spring Semester 3 or Summer 1 or 2): LEX 260, LEX 170, ACC 150, ACC 149, LEX 151, CIS 126, ACC 131, LEX 270, OST 236, LEX 214, CIS 152, ACC 140, COE 112
Diploma D25380
Day
Full-Time/Part-Time

Fall Semester 1
LEX 110 Introduction to Paralegal Studies  2  0  2
LEX 120 Legal Research/Writing I  2  2  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 250 Wills, Estates, and Trust  2  2  3
Total  17

Spring Semester 1
LEX 121 Legal Research/Writing II  2  2  3
LEX 141 Civil Litigation II  2  2  3
LEX 130 Civil Injuries  3  0  3
LEX 160 Criminal Law & Procedure  2  2  3
LEX 240 Family Law  3  0  3
LEX 211 Real Property II  1  4  3
Total  18

Summer Session 1
ACC 115 College Accounting  3  2  4
LEX Elective  2  0  2
Total  6

Certificate C25380
Day/Evening
Full-Time/Part-Time

Fall Semester 1
BUS 115 Business Law I  3  0  3
LEX 150 Commercial Law  2  2  3
LEX 210 Real Property I  3  0  3
LEX 211 Real Property II  1  4  3
LEX 250 Wills, Estates, and Trust  2  2  3
Total  12

RADIOGRAPHY

The Radiography curriculum prepares the graduate to be a medical radiographer, a skilled health care professional who uses radiation to produce images of the human body. Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, radiation protection, quality assurance, anatomy and physiology, and radiobiology. Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists’ national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, imaging centers, clinics, physicians’ offices, medical laboratories, government agencies, and industry. Students with a felony conviction may have limited certification and employment opportunities.

Certificate C45600
Evening
Full-Time/Part-Time (Related)

Fall Semester
CIS 111 Basic PC Literacy  1  2  0  2
PBT 100 Phlebotomy Technology  5  2  0  6
PBT 101 Phlebotomy Practicum  0  0  9  3
PSY 101 Applied Psychology  3  0  0  3
Total  14

Graduates eligible to apply for certification by the American Society of Clinical Pathologists (ASCP).

PHLEBOTOMY

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis. Course work includes proper specimen collection and handling, communication skills, and maintaining patient data. Graduates may qualify for employment in hospitals, clinics, physicians’ offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

This is an evening program offered only in the fall semester. Accepted students must have completed the two related courses or have the flexibility of taking them during the day.

Students with a felony conviction may have limited certification and employment opportunities.

Certificate C25380
Day/Evening
Full-Time/Part-Time

Fall Semester 1
RAD 110 RAD Intro & Patient Care  2  3  0  3
RAD 111 RAD Procedures I  3  3  0  4
RAD 151 RAD Clinical Ed I  0  0  6  2
BIO 165 Anatomy & Physiology I  3  3  0  4
ENG 111 Expository Writing  3  0  0  3
ACA 111 College Student Success  1  0  0  1
Total  17

CURRICULUM PROGRAMS OF STUDY 89
The Therapeutic Massage curriculum prepares graduates to work in direct client care setting to provide manipulation, methodical pressure, friction, and kneading of the body for maintaining wellness or treating alterations in wellness throughout the lifespan.

Courses will include content in normal human anatomy and physiology, therapeutic massage, ethical/legal issues, business practices, nutrition, and psychology.

Employment opportunities in North Carolina may be found in hospitals, rehabilitation centers, health departments, home health, medical offices, nursing homes, spas, health and sports clubs, and private practice. Graduates may be eligible to take the National Certification Exam for Therapeutic Massage and Bodywork. Upon successfully passing the NCE, the student may apply to the NC Board of Massage and Bodywork Therapy for licensure.

50 hours of independent practicum.

Upon successful completion of these requirements, the student is eligible for a diploma and may apply to take the National Certification Exam (NCE) for Therapeutic Massage and Bodywork. Upon successfully passing the NCE, the student may apply to the NC Board of Massage and Bodywork Therapy for licensure.

*Courses may be taken before entering the program.
WELDING TECHNOLOGY

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

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

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

Certificate C50420 (Fast Track Schedule)
*Diploma D50420
Day/Evening
Full-Time/Part-Time

Students on the fast track can complete a certificate in eight weeks. Two fast track sessions are offered in the fall. Two certificates can be completed in the fall semester. Students desiring to complete a diploma may follow the Fast Track schedule and add ACA 111, MAT 101, and ENG 102.

MIG Certificate

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<tr>
<td>WLD 110 Cutting Processes</td>
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<td>WLD 141 Symbols &amp; Specifications</td>
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<td>BPR 111 Blueprint Reading</td>
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Stick/TIG Certificate

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<tr>
<td>WLD 131 GTAW (TIG) Plate</td>
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<td>WLD 141 Symbols &amp; Specifications</td>
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Spring Semester

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<td>WLD 122 GMAW (MIG) Plate/Pipe</td>
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* Diplomas students will add ACA 111, MAT 101, and ENG 102 to this schedule of classes.

NORTH CAROLINA TRUCK DRIVER TRAINING SCHOOL

The Truck Driver Training curriculum prepares individuals to drive a tractor trailer rig. This program teaches proper driving procedures, safe driver responsibilities, commercial motor vehicle laws and regulations, and the basic principles and practices for operating commercial vehicles.

Course work includes vehicle law and regulations, map reading and trip planning, vehicle maintenance, safety procedures, daily logs, defensive driving, freight handling security, and fire protection. Highway driving, training range exercises, and classroom lectures are used to develop the student’s knowledge and skills.

All Commercial Driver’s License skill’s tests are administered on site by the school’s third party examiners. Graduates of the curriculum are employable by commercial trucking firms. They may also become owner-operators or work as private contract haulers.

Students with a felony conviction may have limited certification and employment opportunities.

All full-time day classes are Monday-Friday from 7:00 a.m. to 6:00 p.m. for eight weeks. Actual start and end dates vary each calendar year.

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<tr>
<th>Host School</th>
<th>Location</th>
<th>Dates</th>
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<td>Johnston Comm Coll</td>
<td>Smithfield, NC</td>
<td>Jan – Feb</td>
</tr>
<tr>
<td>Catawba Valley Comm Coll</td>
<td>Hickory, NC</td>
<td>Jan – Feb</td>
</tr>
<tr>
<td>Johnston Comm Coll</td>
<td>Smithfield, NC</td>
<td>March – April</td>
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<td>Nov–Dec</td>
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Part-time Night plus Weekend classes are Monday – Thursday from 6:00 p.m. to 10:00 p.m. plus Saturday and Sunday from 7:00 a.m. to 6:00 p.m. for 12 weeks. These classes are conducted four times each year, but only at the Smithfield campus. Actual class dates vary each calendar year. Approximate class dates are:

- January – March
- Late March - June
- Late June – Mid September
- Late September – Mid December
SPECIAL PROGRAMS

Wachovia Partnership East

East Carolina University College of Education with the support of Wachovia Bank has established consortium partnerships with community colleges and public schools within the university’s service region. The Wachovia Partnership East South Central Consortium is making it possible for students throughout eastern North Carolina to obtain a four-year degree from East Carolina University without traveling to the main campus.

Students graduate with a four-year degree from ECU by completing the first two years of the program at any one of our partnering community colleges: James Sprunt Community College, Johnston Community College, Lenoir Community College, Sampson Community College, and Wayne Community College; followed by taking ECU courses online or through face-to-face instruction at the consortium hub site, Wayne Community College. For more information, please contact Debbie Grady, Coordinator of the Wachovia Partnership East South Central Consortium at (919) 735-5152, ext. 385 or by e-mail at gradyde@waynecc.edu.

Other Programs

Johnston Community College offers the following special programs to other groups in Johnston and surrounding counties:

Johnston Correctional Institute, Selma, N.C.
- Air Conditioning, Heating and Refrigeration Technology
- Electronic Servicing Technology
- Electrical/Electronics Technology
- Food Service Technology
- Horticulture Technology
- Office Systems Technology
- Masonry
- Plumbing

N.C. Correctional Institute for Women, Raleigh, N.C.
- Cosmetology
- Manicuring

Johnston County Mental Health, Smithfield, N.C.
- Greenhouse and Grounds Maintenance
Prerequisite – Some courses have prerequisite requirements that must be met prior to enrollment. Prerequisites may be waived by written permission from the department chair.

Corequisite – Corequisite courses are to be taken together.

Hours are listed after the course title in the following order: Class, Lab, Clinical, Credit.

## ACA – ACADEMIC RELATED

### ACA 111 College Student Success (1 0 0 1)
**Prerequisites:** None; **Corequisites:** None
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 & Study Skills (0 2 0 1)
**Prerequisites:** None; **Corequisites:** None
This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

## ACC – ACCOUNTING

### ACC 115 College Accounting (3 2 0 4)
**Prerequisites:** None; **Corequisites:** None
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 0 4)
**Prerequisites:** None; **Corequisites:** None
This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### ACC 121 Principles of Managerial Accounting (3 2 0 4)
**Prerequisites:** ACC 120; **Corequisites:** None
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting, and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

### ACC 131 Federal Income Taxes (2 2 0 3)
**Prerequisites:** None; **Corequisites:** None
This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Topics include tax law, electronic research and methodologies and the use of technology for the preparation of individual and business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax laws, and complete federal tax returns for individuals, partnerships, and corporations.

### ACC 140 Payroll Accounting (1 2 0 2)
**Prerequisites:** ACC 115 or ACC 120; **Corequisites:** None
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

### ACC 149 Intro to Acc Spreadsheets (1 2 0 2)
**Prerequisites:** ACC 115 or ACC 120; **Corequisites:** None
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

### ACC 150 Acct Software Appl (1 2 0 2)
**Prerequisites:** ACC 115 or ACC 120; **Corequisites:** None
This course introduces microcomputer applications related to the accounting systems. Topics include general ledger, accounts
receive, 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 152 Adv Software Appl (1 2 0 2)**
Prerequisites: ACC 150; Corequisites: None
This course provides continued exposure to commercial accounting software and the opportunity to refine skills developed in ACC 150. Emphasis is placed on advanced applications of software packages. Upon completion, students should be able to use commercial software to complete complex accounting tasks.

**ACC 220 Intermediate Accounting I (3 2 0 4)**
Prerequisites: ACC 121; Corequisites: None
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 analyses of financial statements. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

**ACC 225 Cost Accounting (3 0 0 3)**
Prerequisites: ACC 121; Corequisites: None
This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 240 Gov & Not-for-Profit Acct (3 0 0 3)**
Prerequisites: ACC 121; Corequisites: None
This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 269 Audit & Assurance Servcs (3 0 0 3)**
Prerequisites: ACC 220; Corequisites: None
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.

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**AHR – AIR CONDITIONING, HEATING, & REFRIGERATION**

**AHR 110 Intro to Refrigeration (2 6 0 5)**
Prerequisites: None; Corequisites: None
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

**AHR 111 HVACR Electricity (2 2 0 3)**
Prerequisites: None; Corequisites: None
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

**AHR 112 Heating Technology (2 4 0 4)**
Prerequisites: None; Corequisites: None
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

**AHR 113 Comfort Cooling (2 4 0 4)**
Prerequisites: None; Corequisites: None
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

**AHR 114 Heat Pump Technology (2 4 0 4)**
Prerequisites: AHR 110 or AHR 113; Corequisites: None
This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychrometrics, manufacturer specifications, and test instruments to determine proper system operation.
AHR 115 Refrigeration Systems (1 3 0 2)
Prerequisites: AHR 110; Corequisites: None
This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 120 HVACR Maintenance (1 3 0 2)
Prerequisites: None; Corequisites: None
This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR 130 HVAC Controls (2 2 0 3)
Prerequisites: AHR 111 or ELC 111; Corequisites: None
This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133 HVAC Servicing (2 6 0 4)
Prerequisites: AHR 112 or AHR 113
The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 140 All-Weather Systems (1 3 0 2)
Prerequisites: AHR 112 or AHR 113; Corequisites: None
This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC’s and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

AHR 180 HVACR Customer Relations (1 0 0 1)
Prerequisites: None; Corequisites: None
This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

AHR 210 Residential Building Code (1 2 0 2)
Prerequisites: None; Corequisites: None
This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

AHR 211 Residential System Design (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

AHR 212 Advanced Comfort System (2 6 0 4)
Prerequisites: AHR 114; Corequisites: None
This course covers water-cooled comfort systems, water-source/geo thermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geo thermal heat pumps, and high efficiency heat pumps.

AHR 215 Commercial HVAC Controls (1 3 0 2)
Prerequisites: AHR 111 or ELC 111; Corequisites: None
This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

AHR 235 Refrigeration Design (2 2 0 3)
Prerequisites: AHR 110; Corequisites: None
This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equip-
ment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

AHR 240 Hydronic Heating (1 3 0 2)
Prerequisites: AHR 112; Corequisites: None
This course covers the accepted procedures for proper design, installation, and balance of hydronic heating systems for residential or commercial buildings. Topics include heating equipment; pump, terminal unit, and accessory selection; piping system selection and design; and pipe sizing and troubleshooting. Upon completion, students should be able to assist with the proper design, installation, and balance of typical hydronic systems.

AHR 250 HVAC System Diagnostics (0 4 0 2)
Prerequisites: None; Corequisites: AHR 212
This course is a comprehensive study of air conditioning, heating, and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and correction of all major system components. Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers’ specifications.

ART 110 Introduction to Art (2 0 0 2)
Prerequisites: None; Corequisites: None
This course is designed to introduce an awareness of art in the everyday world. Emphasis is placed on art as visual communication. Upon completion, students should be able to demonstrate an understanding of the meanings and purposes of art. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

ART 111 Art Appreciation (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 113 Art Methods and Materials (2 2 0 3)
Prerequisites: None; Corequisites: None
This course provides an overview of media and techniques. Emphasis is placed on exploration and manipulation of materials. Upon completion, students should be able to demonstrate familiarity with a variety of methods, materials, and processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ART 114 Art History Survey I (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 115 Art History Survey II (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 116 Survey of American Art (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate an understanding of the history of the American creative experience. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 117 Non-Western Art History (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
ART 121 Design I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 122 Design II (0 6 0 3)
Prerequisites: ART 121; Corequisites: None
This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 131 Drawing I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 132 Drawing II (0 6 0 3)
Prerequisites: ART 131; Corequisites: None
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 135 Figure Drawing I (0 6 0 3)
Prerequisites: ART 131; Corequisites: None
This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 140 Basic Painting (0 4 0 2)
Prerequisites: None; Corequisites: None
This course introduces the mechanics of painting. Emphasis is placed on the exploration of painting media through fundamental techniques. Upon completion, students should be able to demonstrate a basic understanding and application of painting. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 171 Computer Art I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 212 Gallery Assistantship I (0 2 0 1)
Prerequisites: None; Corequisites: None
This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 214 Portfolio and Résumé (0 2 0 1)
Prerequisites: None; Corequisites: None
This course covers résumé writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to 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 résumé. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 222 Wood Design I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the historical and contemporary design concepts and their application to the construction of functional and sculptural wood forms. Emphasis is placed on the mastery of hand and power tools. Upon completion, students should be able to demonstrate appropriate use of tools to cre-
The course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 223 Wood Design II (0 6 0 3)**
*Prerequisites:* ART 222; *Corequisites:* None
This course provides a continuation of the skills and techniques used in ART 222. Emphasis is placed on woodcarving and other processes. Upon completion, students should be able to use original designs in the creation of functional and sculptural forms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 231 Printmaking I (0 6 0 3)**
*Prerequisites:* None; *Corequisites:* None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 232 Printmaking II (0 6 0 3)**
*Prerequisites:* ART 231; *Corequisites:* None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 235 Figure Drawing II (0 6 0 3)**
*Prerequisites:* ART 135; *Corequisites:* None
This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of materials and approaches to drawing. Upon completion, students should be able to demonstrate creativity in the representation of the figure. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 240 Painting I (0 6 0 3)**
*Prerequisites:* None; *Corequisites:* None
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 241 Painting II (0 6 0 3)**
*Prerequisites:* ART 240; *Corequisites:* None
This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 242 Landscape Painting (0 6 0 3)**
*Prerequisites:* ART 240; *Corequisites:* None
This course introduces and practices the skills and techniques of open-air painting. Emphasis is placed on techniques of painting summer foliage, skies, and mountains, and the elements of aerial perspective. Upon completion, students should be able to complete an open-air landscape painting employing brush, knife, scumbling, and glazing techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 243 Portrait Painting (0 6 0 3)**
*Prerequisites:* ART 240; *Corequisites:* None
This course covers the portrait as subject matter by use of live models. Topics include composition, color mixing, and the history of portraiture. Upon completion, students should be able to demonstrate competence in the traditional approach to portrait painting. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 244 Watercolor (0 6 0 3)**
*Prerequisites:* None; *Corequisites:* None
This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and non-traditional concepts used in watercolor media. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**ART 245 Metals I (0 6 0 3)**
*Prerequisites:* None; *Corequisites:* None
This course introduces basic metal design in traditional and contemporary art forms using brass, copper, and silver.
Emphasis is placed on designing and fabricating jewelry, small sculptures, and utilitarian objects. Upon completion, students should be able to design and produce small art objects. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 246 Metals II (0 6 0 3)
Prerequisites: ART 245; Corequisites: None
This course provides a continuation of metal design utilizing basic methods of casting and other processes. Emphasis is placed on individualized design. Upon completion, students should be able to design and produce expressive forms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 247 Jewelry I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces a basic understanding of the design and production of jewelry. Emphasis is placed on concepts and techniques using metals and other materials. Upon completion, students should be able to demonstrate an ability to use appropriate methods to create unique jewelry. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 248 Jewelry II (0 6 0 3)
Prerequisites: ART 247; Corequisites: None
This course is a continuation of the skills learned in ART 247. Emphasis is placed on the creation of individual designs that utilize a variety of techniques such as casting, cloisonné, and plique-a-jour. Upon completion, students should be able to create jewelry which demonstrates originality. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 250 Surface Design: Textiles (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the basic principles and elements of art as applied to textile surfaces. Emphasis is placed on direct, top-dyed processes that utilize both synthetic and natural dyes, and techniques such as batiking, stenciling, and stamping. Upon completion, students should be able to demonstrate a basic understanding of appropriate materials and techniques as they apply to original design on a variety of textile surfaces. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 251 Weaving I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course provides a basic understanding of the design and production of constructed textiles. Emphasis is placed on traditional weaving techniques. Upon completion, students should be able to warp and dress the loom and use appropriate techniques for the creation of unique woven fabrics. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 252 Weaving II (0 6 0 3)
Prerequisites: ART 251; Corequisites: None
This course furthers an exploration of creative design as it relates to manipulated fiber construction. Emphasis is placed on traditional and experimental methods. Upon completion, students should be able to create fiber constructions that utilize appropriate techniques for individual expressive designs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 260 Photography Appreciation (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the origins and historical development of photography. Emphasis is placed on the study of composition and history of photography as an art form. Upon completion, students should be able to recognize and produce, using color transparencies, properly exposed, well-composed photographs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 261 Photography I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 262 Photography II (0 6 0 3)
Prerequisites: ART 261; Corequisites: None
This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
ART 263 Color Photography (0 6 0 3)
Prerequisites: ART 262; Corequisites: None
This course provides an introduction to the procedures and processes involved in color photography. Emphasis is placed on the study of light, filtration, exposure, and films along with the processing and printing of color negative materials. Upon completion, students should be able to demonstrate an understanding of color principles, theories, and processes by using them creatively in the production of color prints. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 264 Digital Photography I (1 4 0 3)
Prerequisites: None; Corequisites: None
This course introduces digital photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, computer photo manipulation, and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 265 Digital Photography II (1 4 0 3)
Prerequisites: ART 264; Corequisites: None
This course provides exploration of the concepts and processes of photo manipulation through complex composite images, special effects, color balancing, and image/text integration. Emphasis is placed on creating a personal vision and style. Upon completion, students should be able to produce well-executed images using a variety of photographic and photo manipulative approaches. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 266 Videography I (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces various aspects of basic video production including concept development, scripting, camera operation, and post-production. Emphasis is placed on creative expression, camera handling, story boarding, and editing. Upon completion, students should be able to demonstrate a basic understanding of video camera operation and production techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 267 Videography II (0 6 0 3)
Prerequisites: ART 266; Corequisites: None
This course is designed to provide a framework for the production of a long-term video project. Emphasis is placed on realization of the unique creative vision. Upon completion, students should be able to produce a thematically coherent, edited video with sound and titling. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 271 Computer Art II (0 6 0 3)
Prerequisites: ART 171; Corequisites: None
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 274 Lettering Design (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces a variety of lettering forms and covers the manual development of these forms using a variety of materials. Emphasis is placed on developing correct size, design, weight, and proportion in a variety of type styles. Upon completion, students should be able to demonstrate competence in the rendering of various lettering styles, and their application in effective graphic design. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 275 Introduction to Commercial Art (0 6 0 3)
Prerequisites: None; Corequisites: None
This course introduces the materials and techniques used in creative layout design for publication. Emphasis is placed on design for advertising in a variety of techniques and media including computer graphics. Upon completion, students should be able to demonstrate competence in manual camera-ready layout design and computer graphics literacy. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 281 Sculpture I (0 6 0 3)
Prerequisites: None; Corequisites: None
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 a variety of sculptural approaches. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 282 Sculpture II (0 6 0 3)
Prerequisites: ART 281; Corequisites: None
This course builds on the visual and technical skills learned in
ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 283 Ceramics I (0 6 0 3)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 284 Ceramics II (0 6 0 3)
Prerequisites: ART 283; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 285 Ceramics III (0 6 0 3)
Prerequisites: ART 284; Corequisites: None
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student’s artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 288 Studio (0 6 0 3)
Prerequisites: None; Corequisites: None
This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 289 Museum Study (2 0 3)
Prerequisites: None; Corequisites: None
This course introduces research methods in the museum setting. Emphasis is placed on the chronology, styles, periods, context, and meaning in art. Upon completion, students should be able to demonstrate the advantage of first-hand and on-site research. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ATR – AUTOMATION AND ROBOTICS

ATR 280 Robotic Fundamentals (3 2 0 4)
Prerequisites: None; Corequisites: None
This course covers application, programming, and maintenance fundamentals for robotic devices. Emphasis is placed on terminology, problem solving, robotic systems controls, and hands-on projects. Upon completion, students should be able to apply basic concepts in application, programming, and robotic control systems.

BIO – BIOLOGY

BIO 110 Principles of Biology (3 3 0 4)
Prerequisites: None; Corequisites: None
This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 111 General Biology I (3 3 0 4)
Prerequisites: None; Corequisites: None
This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 112 General Biology II (3 3 0 4)
Prerequisites: BIO 111; Corequisites: None
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
This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**BIO 120 Introductory Botany (3 0 0 4)**
Prerequisites: BIO 110 or BIO 111; Corequisites: None
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 major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**BIO 140 Environmental Biology (3 0 0 3)**
Prerequisites: None; Corequisites: 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**BIO 140A Environmental Biology Lab (0 3 0 1)**
Prerequisites: None; Corequisites: 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**BIO 163 Basic Anat & Physiology (4 2 0 5)**
Prerequisites: None; Corequisites: None
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**BIO 165 Anatomy and Physiology I (3 0 0 4)**
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**BIO 166 Anatomy and Physiology II (3 0 0 4)**
Prerequisites: BIO 165; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**BIO 175 General Microbiology (2 2 0 3)**
Prerequisites: BIO 110 or BIO 111 or BIO 163 or BIO 165 or BIO 168; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**BIO 235 Ornithology (3 0 0 4)**
Prerequisites: BIO 110 or BIO 111; Corequisites: None
This course introduces the biology of birds. Emphasis is placed on the systematics, recognition, distribution, anatomy, physiology, behavior, and ecology of birds. Upon completion, students should be able to identify various avian species and demonstrate a knowledge of their biology and ecology. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**BIO 242 Natural Resource Conservation (3 0 0 3)**
Prerequisites: BIO 112; Corequisites: None
This course describes the importance of natural resources and
their role in our environment. Emphasis is placed on the physical, biological, and ecological principles underlying natural resource conservation with attention to the biological consequences of human impacts. Upon completion, students should be able to demonstrate an understanding of natural resource conservation. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BIO 271 Pathophysiology (3 0 0 3)
Prerequisites: BIO 163, BIO 166, or BIO 169; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BIO 275 Microbiology (3 3 0 4)
Prerequisites: Either BIO 110, BIO 112, BIO 163, BIO 165, or BIO 168; Corequisites: None
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BPR 111 Blueprint Reading (1 2 0 2)
Prerequisites: None; Corequisites: None
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. This course is also available through Virtual Learning Community (VLC).

BUS 110 Introduction to Business (3 0 0 3)
Prerequisites: None; Corequisites: None
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. This course is also available through the Virtual Learning Community (VLC).

BUS 115 Business Law I (3 0 0 3)
Prerequisites: None; Corequisites: None
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 eth-
cal issues and laws covered to selected business decision-making situations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BUS 121 Business Math (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS 137 Principles of Management (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

BUS 147 Business Insurance (3 0 0 3)
Prerequisites: None; Corequisites: None
This course surveys the basic concepts of risk management. Topics include principles and applications of health, property, life, and casualty insurance. Upon completion, students should be able to evaluate different insurance needs and assist an organization in acquiring adequate insurance coverage.

BUS 152 Human Relations (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.

BUS 228 Business Statistics (2 2 0 3)
Prerequisites: MAT 115, MAT 140, or MAT 161; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BUS 230 Small Business Management (3 0 0 3)
Prerequisites: None; Corequisites: None
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. This course is also available through the Virtual Learning Community (VLC).

BUS 260 Business Communication (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

Program enrollment required to take CAT courses.

CAT 210 CT Physics & Equipment (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the system operations and components, image processing and display, image quality, and artifacts in computed tomography. Emphasis is placed on the data acquisition components, tissue attenuation conversions, image manipulation, and factors controlling image resolution. Upon completion, students should be able to understand the physics and instrumentation used in computed tomography.

CAT 211 CT Procedures (4 0 0 4)
Prerequisites: None; Corequisites: CAT 210
This course is designed to cover specialized patient care, cross-sectional anatomy, contrast media, and scanning procedures in computed tomography. Emphasis is placed on patient assessment and monitoring, contrast agents use, radiation safety, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of the imaging procedures in computed tomography.

CAT 231 CT Clinical Practicum (0 0 33 11)
Prerequisites: None; Corequisites: None
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.
CET – COMPUTER ENGINEERING TECHNOLOGY

CET 245 Internet Servers (2 3 0 3)
Prerequisites: CSC 134 or CSC 148; Corequisites: None
This course covers the setup and management of Internet server hardware and software. Topics include TCP/IP, FTP, SMTP, and SNMP; installation and configuration of server software for WWW, FTP, DNS, news, mail, and listserv services; and other topics. Upon completion, students should be able to set up and maintain Internet servers.

CHM – CHEMISTRY

CHM 115 Concepts in Chemistry (3 0 0 3)
Prerequisites: None; Corequisites: CHM 115A
This course introduces basic chemical concepts and their applications to daily life for non-science majors. Topics include air pollution, global warming, energy, world of polymers, water and its importance to a technological society, food, drugs, and nuclear chemistry. Upon completion, students should be able to discuss, apply, and appreciate the impact of chemistry on modern society. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

CHM 115A Concepts in Chemistry Lab (0 2 0 1)
Prerequisites: None; Corequisites: CHM 115
This course is a laboratory for CHM 115. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 115. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical concepts presented in CHM 115. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

CHM 131 Introduction to Chemistry (3 0 0 3)
Prerequisites: MAT 070 or Higher; Corequisites: 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 131A Intro to Chemistry Lab (0 3 0 1)
Prerequisites: MAT 070 or Higher; Corequisites: CHM 131
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 132 Organic and Biochemistry (3 3 0 4)
Prerequisites: CHM 131 and CHM 131A or CHM 151; Corequisites: None
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is also available through the Virtual Learning Community (VLC).

CHM 151 General Chemistry I (3 3 0 4)
Prerequisites: MAT 080 or Higher; Corequisites: None
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 chemical laws and concepts as needed in CHM 152. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 152 General Chemistry II (3 3 0 4)
Prerequisites: CHM 151; Corequisites: None
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
CIS 110 Introduction to Computers (2 2 0 3)
Prerequisites: None; Corequisites: None
This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CIS 111 Basic PC Literacy (1 2 0 2)
Prerequisites: None; Corequisites: None
This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

CIS 115 Intro to Programming & Logic (2 2 0 3)
Prerequisites: MAT 080 or MAT 090; Corequisites: None
This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CIS 126 Graphics Software Intro (2 2 0 3)
Prerequisites: None; Corequisites: None
This course provides an introduction to graphic design and execution of pictorial graphics using a variety of software packages. Emphasis is placed on creation and manipulation of images using graphic design software. Upon completion, students should be able to create graphic designs and incorporate these designs into printed publications.

CIS 130 Survey of Operating Sys (2 3 0 3)
Prerequisites: None; Corequisites: None
The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance.

CIS 148 Operating Sys - Windows NT® (2 2 0 3)
Prerequisites: None; Corequisites: CIS 130
This course introduces operating systems concepts for the Windows NT operating system. Topics include hardware management, file and memory management, system configuration/optimization, networking options, and utilities. Upon completion, students should be able to perform operating system functions at the single/multi-user support level in a Windows NT environment.

CIS 152 Database Concepts & Apps (2 2 0 3)
Prerequisites: CIS 110 or CIS 111 or CIS 115; Corequisites: None
This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices.

CIS 153 Database Applications (2 2 0 3)
Prerequisites: CIS 152; Corequisites: None
This course covers advanced database functions continued from CIS 152. 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.

CIS 163 Prog Interfaces Internet (2 2 0 3)
Prerequisites: CIS 110 or CIS 111; Corequisites: None
This course creates interactive multimedia applications and applets for the Internet using web-specific languages. Emphasis is placed on audio, video, graphic, and network resources and various file formats. Upon completion, students should be able to create an interactive multimedia application or applet for the Internet.

CIS 172 Introduction to the Internet (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, list servers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.
CIS 173 Network Theory (2 2 0 3)
Prerequisites: None; Corequisites: None
This course examines Token Ring, Ethernet, and Arcnet networks. Topics include LAN topologies and design; cable characteristics; cable, interface cards, server, and client installation; basic management techniques; linking networks; and troubleshooting LAN problems. Upon completion, students should be able to install both hardware and software for a small client/server LAN and troubleshoot common network problems.

CIS 174 Network System Manager I (2 2 0 3)
Prerequisites: NET 110; Corequisites: None
This course covers effective network management. Topics include network file system design and security, login scripts and user menus, printing services, e-mail, and backup. Upon completion, students should be able to administer an office network system.

CIS 175 Network Management I (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers fundamental network administration and system management. Topics include accessing and configuring basic network services, managing directory services, and using network management software. Upon completion, students should be able to apply system administrator skills in developing a network management strategy.

CIS 215 Hardware Install/Maintenance (2 3 0 3)
Prerequisites: CIS 110 or CIS 111 or CIS 115; Corequisites: None
This course covers the basic hardware of a personal computer, including operations and interactions with software. Topics include component identification, the memory system, peripheral installation and configuration, preventive maintenance, and diagnostics and repair. Upon completion, students should be able to select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair non-functioning personal computers.

CIS 216 Software Installation/Maintenance (1 2 0 2)
Prerequisites: CIS 130; Corequisites: None
This course introduces the installation and troubleshooting aspects of personal computer software. Emphasis is placed on initial installation and optimization of system software, commercial programs, system configuration files, and device drivers. Upon completion, students should be able to install, upgrade, uninstall, optimize, and troubleshoot personal computer software.

CIS 246 Operating System – UNIX (2 3 0 3)
Prerequisites: None; Corequisites: None
This course includes operating systems concepts for UNIX operating systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, and other related topics. Upon completion, students should be able to effectively use the UNIX operating system and its utilities.

CIS 274 Network System Manager II (2 2 0 3)
Prerequisites: CIS 174; Corequisites: None
This course is a continuation of CIS 174 focusing on advanced network management, configuration, and installation. Emphasis is placed on server configuration files, startup procedures, server protocol support, memory and performance concepts, and management and maintenance. Upon completion, students should be able to install and upgrade networks and servers for optimal performance.

CIS 275 Network Management II (2 2 0 3)
Prerequisites: CIS 175; Corequisites: None
This course is a continuation of CIS 175 focusing on advanced enterprise networks. Topics include directory service tree planning, management distribution and protection, improving network security, auditing the network, printing, networking, and system administration of an Internet node. Upon completion, students should be able to manage client services and network features and optimize network performance.

CIS 287 Network Support (2 2 0 3)
Prerequisites: CIS 274 or CIS 275; Corequisites: None
This course provides experience using CD ROM and on-line 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.

CJC – CRIMINAL JUSTICE

CJC 100 Basic Law Enforcement Training (8 30 0 18)
Prerequisites: None; Corequisites: None
This course covers the skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Emphasis is placed on topics and areas as defined by the North Carolina Administrative Code. Upon completion, students should be able to demonstrate competence in the topics and areas required for the state comprehensive examination.
CJC 111 Intro to Criminal Justice (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

CJC 112 Criminology (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 121 Law Enforcement Operations (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

CJC 131 Criminal Law (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Procedure & Evidence (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

CJC 212 Ethics & Community Relations (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse (3 0 0 3)
Prerequisites: None; Corequisites: None
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 215 Organization & Administration (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of
control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

CJC 221 Investigative Principles (3 2 0 4)
Prerequisites: None; Corequisites: None
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 231 Constitutional Law (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

COE – COOPERATIVE EDUCATION

COE 110 World of Work (1 0 0 1)
Prerequisites: None; Corequisites: None
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 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 112 Co-op Work Experience II (0 0 20 2)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 115 Work Exp Seminar I (1 0 0 1)
Prerequisites: None; Corequisites: COE 111 and COE 112
This course is a once a week, one-hour seminar to discuss the problems, questions, and successes of the Co-Op Work Experience. It provides an opportunity for teacher/student evaluation of the students work experience and provides guidance for successful completion of the experience.

COE 121 Co-op Work Experience II (0 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 122 Co-op Work Experience II (0 0 20 2)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 125 Work Exp Seminar II (1 0 0 1)
Prerequisites: None; Corequisites: COE 121 and COE 122 and COE 123 and COE 124
This course is a once a week, one-hour seminar to discuss the problems, questions, and successes of the Co-Op Work Experience. It provides an opportunity for teacher/student evaluation of the students work experience and provides guidance for successful completion of the experience.

COE 131 Co-op Work Experience III (0 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 135 Work Exp Seminar III (1 0 0 1)
Prerequisites: None; Corequisites: COE 131 and COE 132 and COE 133 and COE 134
This course is a once a week, one-hour seminar to discuss the problems, questions, and successes of the Co-Op Work Experience. It provides an opportunity for teacher/student evaluation of the students work experience and provides guidance for successful completion of the experience.
COE 211 Co-op Work Experience IV (0 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 221 Co-op Work Experience V (0 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 231 Co-op Work Experience VI (0 0 10 1)
Prerequisites: None; Corequisites: None
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COM 110 Introduction to Communication (3 0 0 3)
Prerequisites: None; Corequisites: None
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

COM 231 Public Speaking (3 0 0 3)
Prerequisites: None; Corequisites: None
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

COS 111 Cosmetology Concepts I (4 0 0 4)
Prerequisites: None; Corequisites: COS 112
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS 112 Salon I (0 24 0 8)
Prerequisites: None; Corequisites: 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 0 4)
Prerequisites: Instructor Approval Required; Corequisites: COS 114
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS 114 Salon II (0 24 0 8)
Prerequisites: Instructor Approval Required; Corequisites: COS 113
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.
COS 115 Cosmetology Concepts III (4 0 0 4) 
Prerequisites: Instructor Approval Required; 
Corequisites: 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 0 4) 
Prerequisites: Instructor Approval Required; 
Corequisites: COS 115
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS 117 Cosmetology Concepts IV (2 0 0 2 ) 
Prerequisites: Instructor Approval Required; 
Corequisites: COS 115
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

COS 118 Salon IV (0 21 0 7 ) 
Prerequisites: Instructor Approval Required; 
Corequisites: COS 117
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

COS 119 Esthetics Concepts I (2 0 0 2 ) 
Prerequisites: None; Corequisites: COS 120
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 0 6) 
Prerequisites: None; Corequisites: COS 119
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 121 Manicure/Nail Technology I (4 6 0 6) 
Prerequisites: Instructor Approval Required; Corequisites: None
This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

COS 125 Esthetics Concepts II (2 0 0 2 ) 
Prerequisites: COS119; Corequisites: COS 126
This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis. Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

COS 126 Esthetics Salon II (0 18 0 6) 
Prerequisites: COS 120; Corequisites: COS 125
This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination for Estheticians.

COS 222 Manicure/Nail Technology II (4 6 0 6) 
Prerequisites: COS 121; Corequisites: None
This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.
COS 271 Instructor Concepts I (5 0 0 5)
Prerequisites: Instructor Approval Required;
Corequisites: COS 272
This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unity 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 0 21 7)
Prerequisites: Instructor Approval Required;
Corequisites: COS 271
This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

COS 273 Instructor Concepts II (5 0 0 5)
Prerequisites: COS 271 and COS 272. Instructor Approval Required;
Corequisites: 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 0 21 7)
Prerequisites: COS 271 and COS 272. Instructor Approval Required;
Corequisites: 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. This is a certificate-level course.

CRT 111 Machine Shorthand I (3 2 0 4)
Prerequisites: OST 134; Corequisites: CRT 121
This course introduces the principles of machine shorthand and realtime technology skills. Emphasis is placed on mastery of the keyboard, phonetic sound patterns, brief forms, theory, and computer software through the use of theory tutorials and realtime technology. Upon completion, students should be able to write accurately, read notes, and transcribe dictated material.

CRT 112 Machine Shorthand II (3 2 0 4)
Prerequisites: CRT 111; Corequisites: CRT 122
This course is a continuation of the principles of machine shorthand and realtime technology skills. Emphasis is placed on recognition vocabulary, realtime writing of dictation, and correct transcription procedures. Upon completion, students should be able to write accurately, read back, and transcribe material with 95 percent accuracy.

CRT 121 Mach Short Speed Dev I (0 2 0 1)
Prerequisites: OST 134; Corequisites: CRT 111
This course is designed to build speed and develop accuracy in taking of dictation using machine shorthand and realtime technology. Emphasis is placed on correct techniques, writing machine notes from dictation, reading notes, and transcribing notes. Upon completion, students should be able to display the skills essential to CRT 111.

CRT 122 Mach Short Speed Dev II (0 2 0 1)
Prerequisites: CRT 121; Corequisites: CRT 112
This course is designed to build speed and develop accuracy in the taking of dictation using machine shorthand and realtime technology. Emphasis is placed on realtime writing, speed building skills, and correct transcription procedures. Upon completion, students should be able to display the skills essential to CRT 112.

CRT 211 Machine Shorthand III (3 2 0 4)
Prerequisites: CRT 112; Corequisites: CRT 221
This course is a continuation of the principles of machine shorthand and realtime technology skills. Emphasis is placed on brief forms, phrases, and recognition vocabulary particular to literary, jury charge, and testimony material. Upon completion, students should be able to write accurately, read back, and transcribe literary, jury charge, and testimony material with 95 percent accuracy.
CRT 212 Machine Shorthand IV (3 2 0 4)
Prerequisites: CRT 211; Corequisites: CRT 222
This course covers dictation in diverse and specialized areas including local, national, and international current events. Emphasis is placed on realtime writing of technical, literary, jury charge, and testimony material and the writing of technical vocabulary. Upon completion, students should be able to write accurately, read back, and transcribe technical, literary, jury charge, and testimony material with 95 percent accuracy.

CRT 213 Machine Shorthand V (3 2 0 4)
Prerequisites: CRT 212; Corequisites: CRT 223
This course is designed to improve speed and accuracy in dictation and transcription. Emphasis is placed on literary, jury charge, and testimony material, as well as the refinement of realtime technology. Upon completion, students should be able to produce accurate documents using computer-aided transcription and realtime writing skills.

CRT 221 Mach Short Speed Dev III (0 2 0 1)
Prerequisites: CRT 122; Corequisites: CRT 212
This course is designed to improve speed and accuracy in taking literary, jury charge, and testimony material. Emphasis is placed on speed building, critical analysis, and transcription of dictated material. Upon completion, students should be able to display the skills essential to CRT 211.

CRT 222 Mach Short Speed Dev IV (0 2 0 1)
Prerequisites: CRT 221; Corequisites: CRT 212
This course is designed to improve speed and accuracy in taking and transcribing a variety of technical material. Emphasis is placed on literary, jury charge, and testimony material with specialized vocabularies, as well as local, national, and international current events. Upon completion, students should be able to display the skills essential to CRT 212.

CRT 223 Mach Short Speed Dev V (0 2 0 1)
Prerequisites: CRT 222; Corequisites: CRT 213
This course provides intense speed building and transcription techniques in taking literary, jury charge, and testimony material. Emphasis is placed on the use of brief forms and phrases and the refinement of computer technology skills. Upon completion, students should be able to display the skills essential to CRT 213.

CRT 231 Court Reporting Procedures (3 0 0 3)
Prerequisites: CRT 213; Corequisites: None
This course provides an in-depth study of the role of the reporter in trials, depositions, and administrative hearings. Emphasis is placed on administering oaths, marking and handling exhibits, indexing and storing notes, reporting procedures, and the NCRA Code of Professional Ethics. Upon completion, students should be able to assume the role of the court reporter through simulated trials, depositions, and RPR and CRR mock examinations.

CRT 235 Mach Shthd/Captioning Env (2 2 0 3)
Prerequisites: None; Corequisites: None
This course is designed to build specialized machine shorthand dictionaries to caption single and multivoice materials in technical, broadcast, and educational settings. Emphasis is placed on dictionary building, research, and hands-on machine shorthand captioning of single and multivoice technical material. Upon completion, students should be able to caption single and multivoice materials at 160-180 a minute with a minimum of 98 percent accuracy.

CSC 135 COBOL Programming (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug COBOL language programs.

CSC 139 Visual BASIC Programming (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

CSC 141 Visual C++ Programming (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces event-driven computer programming using the Visual C++ programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual C++ language programs.

CSC 143 Object-Oriented Programming (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment.
CSC 160 Intro to Internet Programming (2 2 0 3)
Prerequisites: CIS 172; Corequisites: None
This course introduces client-side Internet programming using HTML and JavaScript. Topics include use of frames and tables, use of meta tags, JavaScript techniques for site navigation. Upon completion, students should be able to write HTML documents that incorporate programming to provide web page organization and navigation functions.

CSC 232 Advanced BASIC (2 3 0 3)
Prerequisites: CSC 132; Corequisites: None
This course is a continuation of CSC 132 using BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 234 Advanced C++ (2 3 0 3)
Prerequisites: CSC 134; Corequisites: None
This course is a continuation of CSC 134 using C++ with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 239 Advanced Visual BASIC (2 3 0 3)
Prerequisites: CSC 139; Corequisites: None
This course is a continuation of CSC 139 using Visual BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CSC 241 Advanced Visual C++ (2 3 0 3)
Prerequisites: CSC 141; Corequisites: None
This course is a continuation of CSC 141 using Visual C++ with object-oriented programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, sub-programs, interactive processing, algorithms, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

CVS – CARDIOVASCULAR SONOGRAPHY
Program enrollment required to take CVS courses.

CVS 160 CVS Clinical Ed I (0 0 1 5 5)
Prerequisites: None; Corequisites: CVS 163
This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

CVS 161 CVS Clinical Ed II (0 0 2 4 8)
Prerequisites: CVS 160; Corequisites: None
This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

CVS 162 CVS Clinical Ed III (0 0 1 5 5)
Prerequisites: CVS 161; Corequisites: None
This course provides continued participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

CVS 163 Echo I (3 2 0 4)
Prerequisites: None; Corequisites: None
This course covers cardiac anatomy and introduces cardiac scanning techniques. Topics include normal cardiac anatomy, Doppler physics, and 2-D and M-mode imaging. Upon completion, students should be able to perform 2-D and M-mode studies.

CVS 164 Echo II (3 2 0 4)
Prerequisites: CVS 163; Corequisites: None
This course covers cardiac anatomy and introduces cardiac scanning techniques. Topics include normal cardiac anatomy, Doppler physics, and 2-D and M-mode imaging. Upon completion, students should be able to perform and recognize normal and abnormal cardiac studies.

CVS 260 CVS Clinical Ed IV (0 0 2 4 8)
Prerequisites: CVS 162; Corequisites: None
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.
CVS 261 CVS Clinical Ed V (0 0 24 8)
Prerequisites: CVS 260; Corequisites: None
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

CVS 277 Cardiovascular Topics (2 0 0 2)
Prerequisites: CVS 260; Corequisites: CVS 261
This course provides an overview of cardiovascular topics in preparation for certification examinations. Emphasis is placed on registry preparation. Upon completion, students should be able to sit for the registry examinations.

ECO 151 Survey of Economics (3 0 0 3)
Prerequisites: None; Corequisites: None
This course, for those who have not received credit for ECO 251 or 252, introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

ECO 251 Principles of Microeconomics (3 0 0 3)
Prerequisites: MAT 070 or equivalent; Corequisites: None
This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

ECO 252 Principles of Macroeconomics (3 0 0 3)
Prerequisites: ECO 251 or permission of instructor; Corequisites: None
This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
EDU 111 Early Childhood Credential I (2002)
Prerequisites: None; Corequisites: None
This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

EDU 112 Early Childhood Credential II (2002)
Prerequisites: None; Corequisites: None
This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

EDU 113 Family/Early Child Credential (2002)
Prerequisites: None; Corequisites: None
This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

EDU 118 Teach Assoc Princ & Prac (3003)
Prerequisites: None; Corequisites: None
This course covers the teacher associate'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 professional role of the teacher associate, demonstrate positive communication, and discuss educational philosophy. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.

EDU 119 Intro to Early Child Educ (4004)
Prerequisites: None; Corequisites: None
This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism, and planning developmentally appropriate programs for children. Topics include historical foundations, program types, career options, professionalism, and creating inclusive environments and curriculum that are responsive to the needs of children and families. Upon completion, students should be able to design career plans and develop appropriate schedules, environments and activity plans while incorporating adaptations for children with exceptionalities. This course is also available through the Virtual Learning Community (VLC).

EDU 131 Child, Family, & Community (3003)
Prerequisites: None; Corequisites: None
This course covers the development of partnerships between families, inclusive programs for children/schools that serve young children with and without disabilities, and the community. Emphasis is placed on requisite skills and benefits for successfully establishing, supporting, and maintaining respectful collaborative relationships between today's diverse families, centers/schools, and community resources. Upon completion, students should be able to describe appropriate relationships with parents/caretakers, center/school colleagues, and community agencies that enhance the educational experiences/well-being of all children. This course is also available through the Virtual Learning Community (VLC).

EDU 144 Child Development I (3003)
Prerequisites: None; Corequisites: None
This course covers the theories of child development, developmental sequences, and factors that influence children's development, from conception through pre-school for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and the multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments. This course is also available through the Virtual Learning Community (VLC).

EDU 145 Child Development II (3003)
Prerequisites: None; Corequisites: None
This course covers theories of child development, developmental sequences, and factors that influence children's development, from pre-school through middle childhood for all children. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development multiple influences on development and learning of the whole child. Upon completion, students should be able to identify typical and atypical developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments. This course is also available through the Virtual Learning Community (VLC).
EDU 146 Child Guidance (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces practical principles and techniques for providing developmentally appropriate guidance for all children with and without disabilities, including those at risk. Emphasis is placed on encouraging self-esteem, cultural awareness, effective communication skills, direct/indirect techniques/strategies and observation to understand the underlying causes of behavior. Upon completion, students should be able to demonstrate appropriate interactions with children and families and promote conflict resolution, self-control, self-motivation, and self-esteem in children. This course is also available through the Virtual Learning Community (VLC).

EDU 147 Behavior Disorders (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is a comprehensive study of behavior disorders encompassing characteristics, assessments, and placement alternatives. Topics include legislation, appropriate management interventions, and placement options for children with behavior disorders. Upon completion, students should be able to identify, develop, and utilize appropriate behavior management applications. This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.

EDU 148 Learning Disabilities (4 2 0 5)
Prerequisites: None; Corequisites: None
This course is a comprehensive study of the characteristics, teaching strategies, assessment tools, and placement alternatives for children with learning disabilities. Topics include characteristics, causes, assessment instruments, learning strategies, and collaborative methods for children with learning disabilities. Upon completion, students should be able to assist in identifying, assessing, and providing educational interventions for children with learning disabilities. This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.

EDU 151 Creative Activities (3 0 0 3)
Prerequisites: None; Corequisites: None
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 physical skills, and dramatics. Upon completion, students should be able to create, manage, adapt and evaluate developmentally supportive learning materials, experiences and environments.

EDU 151A Creative Activities Lab (0 2 0 1)
Prerequisites: None; Corequisites: EDU 151
This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153 Health, Safety, & Nutrition (3 0 0 3)
Prerequisites: None; Corequisites: None
This course focuses on 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, implement safe learning environments, and adhere to state regulations.

EDU 153A Health, Safety, & Nutrition Lab (0 2 0 1)
Prerequisites: None; Corequisites: EDU 153
This course provides a laboratory component to complement EDU 153. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of safe indoor/outdoor environments and nutrition education programs.

EDU 154 Social/Emotion/Behav Dev (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the social and emotional development of young children. Topics include interpreting theory, assessing children, and planning and implementing developmentally appropriate practices. Upon completion, students should be able to plan, implement, and evaluate learning experiences in a developmentally appropriate curriculum.

EDU 156 Community as Classroom (1 2 0 2)
Prerequisites: None; Corequisites: None
This course provides an opportunity for off-campus learning opportunities. Emphasis is placed on field trips, effective communication with community agencies and speakers, and awareness of the natural environment and local cultural heritage. Upon completion, students should be able to conduct appropriate field trips and site visits and interact professionally with community resources and contacts.

EDU 157 Active Play (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the use of indoor and outdoor physical activities to promote the physical, cognitive, and social/emo-
traditional development of children. Topics include the role of active play, development of play skills, playground design, selection of safe equipment, and materials and surfacing for active play. Upon completion, students should be able to discuss the stages of play, the role of teachers in play, and the design of appropriate active play areas and activities.

**EDU 162 Early Experience/ Prospective Teachers (1 2 0 2)**
*Prerequisites: None; Corequisites: None*
This course provides an opportunity to observe teachers and pupils in a natural classroom environment. Emphasis is placed on observation methods, planning, teaching, evaluation, personal goal assessment, and curriculum. Upon completion, students should be able to demonstrate an understanding of their own personal teaching goals, teaching methods, planning methods, and student performance evaluation.

**EDU 163 School Learning (3 0 0 3)**
*Prerequisites: EDU 116; Corequisites: None*
This course is a study of the learning process within the school environment. Topics include techniques of classroom organization and management, teaching strategies, and individual student differences in development and learning styles. Upon completion, students should be able to demonstrate an understanding of instructional strategies applied in the classroom.

**EDU 186 Reading & Writing Methods (3 0 0 3)**
*Prerequisites: None; Corequisites: None*
This course covers concepts, resources, and methods for teaching reading and writing to school-age 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 developmentally appropriate reading and writing experiences. *This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.*

**EDU 188 Issues in Early Child Ed (2 0 0 2)**
*Prerequisites: None; Corequisites: None*
This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.

**EDU 221 Children with Exceptionalities (3 0 0 3)**
*Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245; Corequisites: None*
This course, based on the foundation of typical development, introduces working with children with exceptionalities. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the learning environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, collaborate with families and professionals to plan, implement, and evaluate inclusion strategies. *This course is also available through the Virtual Learning Community (VLC).*

**EDU 234 Infants, Toddlers, & Twos (3 0 0 3)**
*Prerequisites: None; Corequisites: None*
This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year-olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

**EDU 235 School-Age Dev & Program (2 0 0 2)**
*Prerequisites: None; Corequisites: None*
This course presents developmentally appropriate practices in group care for school-age children. Topics include principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for children five to twelve years of age and plan and implement age-appropriate activities.

**EDU 241 Adult-Child Relations (2 0 0 2)**
*Prerequisites: None; Corequisites: None*
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 247 Physical Disabilities (3 0 0 3)**
*Prerequisites: EDU 144 or PSY 244; Corequisites: None*
This course covers characteristics, intervention strategies, adaptive procedures, and technologies for children with physical disabilities. Topics include intervention strategies, inclusive placement options, and utilization of support services for children with physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies for specific disabilities and service delivery options for those disabilities. *This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.*

**EDU 248 Mental Retardation (2 0 0 3)**
*Prerequisites: EDU 221 Corequisites: None*
This course covers the causes and assessment of mental retardation and individualized instruction and curriculum for children with mental retardation. Emphasis is placed on definition, char-
acteristics, assessment, and educational strategies for children with mental retardation. Upon completion, students should be able to identify, assess, and plan educational intervention strategies for children with mental retardation. This course is a unique concentration requirement in the Special Education concentration in the Early Childhood Associate program.

EDU 250 PRAXIS I Preparation (1 0 0 1)  
Prerequisites: None; Corequisites: None  
This course is designed to prepare potential teachers for the PRAXIS I exam that is necessary to enter the field of education. Emphasis is placed on content specifications of the PRAXIS I exam, study skills and simulated examinations. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of the PRAXIS I exam.

EDU 251 Exploration Activities (3 0 0 3)  
Prerequisites: None; Corequisites: None  
This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

EDU 251A Exploration Act Lab (0 2 0 1)  
Prerequisites: None; Corequisites: EDU 251  
This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 259 Curriculum Planning (3 0 0 3)  
Prerequisites: EDU 112 or EDU 119 or EDU 113; Corequisites: COE 111  
This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

EDU 261 Early Childhood Admin I (2 0 0 2)  
Prerequisites: None; Corequisites: None  
This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

EDU 262 Early Childhood Admin II (3 0 0 3)  
Prerequisites: EDU 261; Corequisites: None  
This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a childcare center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

EDU 263 Developing School-Age Programs (2 0 0 2)  
Prerequisites: None; Corequisites: None  
This course introduces the methods and procedures for operating a school-age program in either the public or proprietary setting. Emphasis is placed on constructing and organizing the physical environment as well as planning and developing a school-age program. Upon completion, students should be able to plan and develop a quality school-age program.

EDU 271 Educational Technology (2 2 0 3)  
Prerequisites: None; Corequisites: None  
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 Teach Train (2 0 0 2)  
Prerequisites: None; Corequisites: None  
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 & Literacy (3 0 0 3)  
Prerequisites: None; Corequisites: None  
This course explores the continuum of children’s communication development, including verbal and written language acquisition and other forms of communication. Topics include selection of literature and other media, the integration of liter-
acy concepts throughout the classroom environment, inclusive practices and appropriate assessments. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate literacy experiences. This course is also available through the Virtual Learning Community (VLC).

EDU 282 Early Childhood Lit (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children’s literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques.

EDU 285 Internship Exp-School Age (1 0 0 1)
Prerequisites: ENG 111; Corequisites: COE 121 or COE 122
This course provides an opportunity to discuss internship experiences with peers and faculty. Emphasis is placed on evaluating and integrating practicum experiences. Upon completion, students should be able to demonstrate competence in early childhood education. This course is a unique concentration requirement in the Teacher Associate concentration in the Early Childhood Associate program.

EDU 286 Early Childhood Issues (1 0 0 1)
Prerequisites: ENG 111, EDU 259; Corequisites: COE 122
This course provides an opportunity to discuss the application of skills in a developmentally appropriate early childhood environment. Emphasis is placed on developing strategies for reaching competency goals and objectives and on planning and developing curriculum. Upon completion, students should be able to demonstrate competence in classroom management skills and in developing, implementing, and evaluating curriculum plans.

EDU 288 Adv Issues/Early Child Ed (2 0 0 2)
Prerequisites: None; Corequisites: None
This course covers advanced topics and issues in early childhood. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues in early childhood education.

ELN 112 Diesel Electronics System (2 6 0 4)
Prerequisites: None; Corequisites: None
This course introduces electronic theory and applications as used in medium and heavy-duty vehicles. Emphasis is placed on the basic function and operation of semiconductor and integrated circuits. Upon completion, students should be able to identify electronic components, explain their use and function, and use meters and flow charts to diagnose and repair systems.

ELN 113 Electronic Fuel Injection (1 2 0 2)
Prerequisites: None; Corequisites: None
This course covers the function of the various sensors used to provide feedback control to current model diesel engines. Emphasis is placed on the operation of ECM-controlled fuel injectors and testing using current industry methods. Upon completion, students should be able to obtain information from the electronic fuel system using current test programs, fault tree, and digital meters.

ENG – ENGLISH

ENG 070 Basic Language Skills (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the fundamentals of standard written English. Emphasis is placed on effective word choice, recognition of sentences and sentence parts, and basic usage. Upon completion, students should be able to generate a variety of sentence types that clearly express ideas.

ENG 080 Writing Foundations (3 2 0 4)
Prerequisites: ENG 070 or ENG 075; Corequisites: None
This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph.

ENG 090 Composition Strategies (3 0 0 3)
Prerequisites: ENG 080 or ENG 085; Corequisites: ENG 090A
This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.

ENG 090A Comp Strategies Lab (0 2 0 1)
Prerequisites: ENG 080 or ENG 085; 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 101 Applied Communications I (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace.

ENG 102 Applied Communications II (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

ENG 111 Expository Writing (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or ENG 095; Corequisites: None
This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

ENG 112 Argument-Based Research (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. This course has been approved to satisfy the comprehensive Articulation Agreement general education core requirement in English composition.

ENG 113 Literature-Based Research (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically sound, documented essays and research papers that analyze and respond to literary works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

ENG 114 Prof Research & Reporting (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

ENG 131 Introduction to Literature (3 0 0 3)
Prerequisites: ENG 111; Corequisites: ENG 112 or ENG 113 or ENG 114
This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 132 Introduction to Drama (3 0 0 3)
Prerequisites: ENG 111; Corequisites: ENG 112 and ENG 113 and ENG 114
This course provides intensive study of drama as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of drama. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of drama. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 233 Major American Writers (3 0 0 3)
Prerequisites: ENG 112 or ENG 113 or ENG 114; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
ENG 243 Major British Writers (3 0 0 3)
Prerequisites: ENG 112 or ENG 113 or ENG 114;
Corequisites: None
This course provides an intensive study of the works of several major British authors. Emphasis is placed on British history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 272 Southern Literature (3 0 0 3)
Prerequisites: ENG 112 or ENG 113 or ENG 114;
Corequisites: None
This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 274 Literature by Women (3 0 0 3)
Prerequisites: ENG 112 or ENG 113 or ENG 114;
Corequisites: None
This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

GEO 110 Introduction to Geography (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces map reading skills and the physical and cultural features of different areas of the earth. Topics include spatial association, the importance of location, physical characteristics of the earth, and the impact of humans on the environment. Upon completion, students should be able to demonstrate an ability to read a map and describe physical and cultural features of different regions. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

GEO 111 World Regional Geography (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

GEO 130 General Physical Geography (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces both the basic physical components that help shape the earth and the study of minerals, rocks, and evolution of landforms. Emphasis is placed on the geographic grid, cartography, weather, climate, mineral composition, fluvial processes, and erosion and deposition. Upon completion, students should be able to identify these components and processes and explain how they interact. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

GRD 110 Typography I (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.

GRD 131 Illustration I (1 3 0 2)
Prerequisites: ART 131 or DES 125 or GRD 121;
Corequisites: None
This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork.
Grd 132 Illustration II (1 3 0 2)
Prerequisites: GRD 131; Corequisites: None
This course is a continuation of GRD 131. Topics include editorial, product, fashion, and advertising illustrations. Upon completion, students should be able to demonstrate increased proficiency in creating quality illustrations from conceptualization through finished artwork.

Grd 133 Illustration III (1 3 0 2)
Prerequisites: GRD 132; Corequisites: None
This course is designed to strengthen visual techniques and conceptual approaches to illustration. Emphasis is placed on advanced rendering techniques, requirements, and limitations. Upon completion, students should be able to create comprehensive illustrations that meet client/printer requirements.

Grd 141 Graphic Design I (2 4 0 4)
Prerequisites: None; Corequisites: None
This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

Grd 142 Graphic Design II (2 4 0 4)
Prerequisites: DES 135 or GRD 141 or ART 121; Corequisites: None
This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.

Grd 151 Computer Design Basics (1 4 0 3)
Prerequisites: None; Corequisites: None
This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.

Grd 152 Computer Design Tech I (1 4 0 3)
Prerequisites: GRD 151; Corequisites: None
This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.

Grd 153 Computer Design Tech II (1 4 0 3)
Prerequisites: GRD 152; Corequisites: None
This course covers advanced theories and practices in the field of computer design. Emphasis is placed on advanced use of color palettes, layers, and paths. Upon completion, students should be able to creatively produce designs and articulate their rationale.

Grd 160 Photo Fundamentals I (1 4 0 3)
Prerequisites: None; Corequisites: None
This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality.

Grd 161 Photo Fundamentals II (1 4 0 3)
Prerequisites: GRD 160; Corequisites: None
This course is a continuation of GRD 160. Topics include conversions, toning, color, specialized equipment, lighting, processing, and other methods and materials. Upon completion, students should be able to demonstrate proficiency in producing photographic prints.

Grd 162 Photography Portfolio (1 4 0 3)
Prerequisites: GRD 161; Corequisites: None
This course provides an opportunity to develop a portfolio through research and review of previous photographic works. Topics include visual communication skills and presentation of works. Upon completion, students should be able to prepare and present a portfolio of their photographic works.

Grd 175 3-D Animation Design (1 4 0 3)
Prerequisites: GRD 151 or GRA 151; Corequisites: None
This course explores three-dimensional animation design and production. Emphasis is placed on developing essential skills and techniques using three-dimensional animation software from conceptualization to completion including design, illustration, color, spatial depth, and movement. Upon completion, students should be able to produce animation sequences for computer-related presentations.

Grd 180 Interactive Design (1 4 0 3)
Prerequisites: GRD 151 or GRA 151; Corequisites: None
This course covers skills and techniques used in designing interactive presentations. Emphasis is placed on design, including interface design, color, illustration, scripting, audio, typography, and animated elements. Upon completion, students should be able to design and produce interactive presentations.
GRD 210 Airbrush I (1 2 0 2)
Prerequisites: None; Corequisites: None
This course covers the mechanics of airbrushing. Topics include care and maintenance of equipment, spraying techniques and surfaces, and selection of materials. Upon completion, students should be able to produce work demonstrating competent use of an airbrush.

GRD 211 Airbrush II (1 2 0 2)
Prerequisites: GRD 210; Corequisites: None
This course is a continuation of GRD 210. Emphasis is placed on advanced uses of an airbrush and spraying techniques. Upon completion, students should be able to demonstrate advanced techniques in airbrushing.

GRD 220 Calligraphy (0 2 0 1)
Prerequisites: None; Corequisites: None
This course covers calligraphy as a design element. Emphasis is placed on the history, methods, materials, tools, and techniques of hand lettering. Upon completion, students should be able to use a variety of pens, brushes, inks, paint, and surfaces to produce several finished calligraphic works.

GRD 230 Technical Illustration (1 3 0 2)
Prerequisites: ART 131 or DES 125 or GRD 121; Corequisites: None
This course introduces technical and industrial illustration techniques. Topics include orthographic, isometric, linear perspective, and exploded views. Upon completion, students should be able to demonstrate competence in various technical rendering techniques.

GRD 231 Marker Illustration (1 3 0 2)
Prerequisites: ART 131 or DES 125 or GRD 121; Corequisites: None
This course covers marker illustration. Emphasis is placed on various marker types, techniques, and surfaces used in marker illustration. Upon completion, students should be able to demonstrate competence in the use of markers as a medium for commercial illustration.

GRD 232 Fashion Illustration (1 3 0 2)
Prerequisites: GRD 131; Corequisites: None
This course is a study of the current fashion figure. Emphasis is placed on form and movement combined with colors, patterns, fabrics, textures, and styles to create exciting illustrations. Upon completion, students should be able to illustrate fashion figures and accessories using various media.

GRD 233 Product Illustration (1 3 0 2)
Prerequisites: GRD 131 or GRD 230 and GRD 152 or GRA 152; Corequisites: None
This course covers the rendering and illustration of products for commercial purposes. Topics include viewpoint, styles, media, and subjects such as household, industrial, hardware, and sporting goods. Upon completion, students should be able to illustrate products using traditional line, continuous-tone, and digital media.

GRD 241 Graphic Design III (2 4 0 4)
Prerequisites: DES 136 or GRD 142; Corequisites: None
This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.

GRD 242 Graphic Design IV (2 4 0 4)
Prerequisites: GRD 241; Corequisites: None
This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction.

GRD 263 Illustrative Imaging (1 4 0 3)
Prerequisites: GRD 151 or GRA 151; Corequisites: None
This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives.

GRD 271 Multimedia Design I (1 3 0 2)
Prerequisites: GRD 151 or GRA 151; Corequisites: None
This course introduces the fundamentals of multimedia design and production for computer-related presentations. Topics include interface design, typography, storyboarding, scripting, simple animation, graphics, digital audio/video, and copyright issues. Upon completion, students should be able to design and produce multimedia presentations.

GRD 272 Multimedia Design II (1 3 0 2)
Prerequisites: GRD 271; Corequisites: None
This course is a continuation of GRD 271. Emphasis is placed on advanced animation, specialized software, quality control, and cross-platform delivery, as well as problems associated with delivery media and interactivity. Upon completion, stu-
Students should be able to produce multimedia presentations and determine and adapt to technical specifications for delivery.

**GRD 275 Animation I (1 3 0 2)**
*Prerequisites: GRD 151 or GRA 151; Corequisites: None*
This course introduces the concepts and development of animation. Emphasis is placed on theory, storyboarding, narration, sequence implementation, appropriate software usage, and audiovisual manipulation. Upon completion, students should be able to successfully complete computer-generated animated sequences.

**GRD 280 Portfolio Design (2 4 0 4)**
*Prerequisites: GRD 142 and GRD 152 or GRA 152; Corequisites: None*
This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to present an effective portfolio and related self-promotional materials.

**GRD 281 Design of Advertising (2 0 0 2)**
*Prerequisites: None; Corequisites: None*
This course explores the origins, roles, scope, forms, and development of advertising. Emphasis is placed on advertising development from idea through production and the interrelationship of marketing to types of advertising, media, and organizational structure. Upon completion, students should be able to demonstrate an understanding of the complexities and relationships involved in advertising design.

**GRD 282 Advertising Copywriting (1 2 0 2)**
*Prerequisites: ENG 111; Corequisites: None*
This course covers copywriting for print, electronic, and broadcast advertising and promotion. Topics include advertising strategies, proposals, headlines, slogans, and text copy for various types of advertising. Upon completion, students should be able to write and articulate advertising proposals and understand the ethical and regulatory environment for advertising.

**GRD 285 Client/Media Relations (1 2 0 2)**
*Prerequisites: GRD 142 and GRA 121 or GRA 152 or GRD 152; Corequisites: None*
This course introduces media pricing, scheduling, and business ethics. Emphasis is placed on communication with clients and determination of clients’ advertising needs. Upon completion, students should be able to use professional communication skills to effectively orchestrate client/media relationships.
HET 115 Electronic Engines (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces the principles of electronically controlled
diesel engines. Emphasis is placed on testing and adjusting diesel
engines in accordance with manufacturers' specifications. Upon
completion, students should be able to diagnose, test, and cali-
bbrate electronically controlled diesel engines.

HET 116 Air Cond/Diesel Equip (1 2 0 2)
Prerequisites: None; Corequisites: None
This course provides a study of the design, theory, and opera-
tion of heating and air conditioning systems in newer models
of medium and heavy-duty vehicles. Topics include compo-
nent function, refrigerant recovery, and environmental regulat-
ions. Upon completion, students should be able to use proper
techniques and equipment to diagnose and repair heating/air-
conditioning systems according to industry standards.

HET 118 Mechanical Orientation (2 0 0 2)
Prerequisites: None; Corequisites: None
This course introduces the care and safe use of power and hand
tools. Topics include micrometers, dial indicators, torque
wrenches, drills, taps dies, screw extractors, thread restorers,
and fasteners. Upon completion, students should be able to
select and properly use tools for various operations.

HET 119 Mechanical Transmissions (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the operating principles of mechanical
medium and heavy-duty truck transmissions. Topics include
multiple counter shafts, power take-offs, sliding idler clutches,
and friction clutches. Upon completion, students should be
able to diagnose, inspect, and repair mechanical transmissions.

HET 125 Preventive Maintenance (1 3 0 2)
Prerequisites: None; Corequisites: None
This course introduces preventive maintenance practices used
on medium and heavy-duty vehicles and rolling assemblies.
Topics include preventive maintenance schedules, services,
DOT rules and regulations, and road ability. Upon completion,
students should be able to set up and follow a preventive main-
tenance schedule as directed by manufacturers.

HET 127 Shop Rules & Regulations (1 0 0 1)
Prerequisites: None; Corequisites: None
This course introduces safety, OSHA, and EPA general require-
ments used in the mobile equipment industry. Topics include
fire extinguisher use, MSDS sheets, oil contamination, protec-
tive gear, and other related topics. Upon completion, students
should be able to properly use fire extinguishers and demon-
strate knowledge of applicable general safety, OSHA, and EPA
regulations.

HET 128 Medium/Heavy Duty Tune Up (1 2 0 2)
Prerequisites: None; Corequisites: None
This course introduces tune-up and troubleshooting according
to manufacturers' specifications. Topics include troubleshooting
engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students
should be able to troubleshoot, diagnose, and repair engines
and components using appropriate diagnostic equipment.

HET 134 Mechanical Fuel Injection (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the principles of mechanical fuel injec-
tion. Emphasis is placed on test equipment, component func-
tions, and theory. Upon completion, students should be able to
diagnose, service, and repair fuel systems and governors.

HET 230 Air Brakes (1 2 0 2)
Prerequisites: None; Corequisites: None
This course introduces the operation and design of air braking
systems used on trucks. Topics include safety, governors, com-
pressors, and supporting systems. Upon completion, students
should be able to diagnose, disassemble, inspect, repair, and
reassemble air brake systems.

HET 231 Med/Hvy. Duty Brake System (1 3 0 2)
Prerequisites: None; Corequisites: None
This course covers the theory and repair of braking systems
used in medium and heavy-duty vehicles. Topics include air,
hydraulic, and ABS system diagnosis and repair. Upon comple-
tion, students should be able to troubleshoot, adjust, and
repair braking systems on medium and heavy-duty vehicles.

HET 233 Suspension & Steering (2 4 0 4)
Prerequisites: None; Corequisites: None
This course introduces the theory and principles of medium
and heavy-duty steering and suspension systems. Topics include
wheel and tire problems, frame members, fifth wheel,
bearings, and coupling systems. Upon completion, students
should be able to troubleshoot, adjust, and repair suspension
and steering components on medium and heavy-duty vehicles.
HIS 111 World Civilizations I (3.0 0 3)  
Prerequisites: None; Corequisites: None  
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 per-modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 112 World Civilizations II (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course introduces world history from the early modern era to the present. Topics include the cultures of African, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 121 Western Civilization I (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 122 Western Civilization II (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 131 American History I (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 132 American History II (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

HIS 221 African-American History (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HIS 228 History of the South (3.0 0 3)  
Prerequisites: None; Corequisites: None  
This course covers the origin and development of the South as a distinct region of the United States. Emphasis is placed on Southern identity and its basis in cultural, social, economic, and political developments during the 19th and 20th centuries. Upon completion, students should be able to identify and analyze the major cultural, social, economic, and political developments in the South. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*
HIS 231 Recent American History (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is a study of American society from the post-Depression era to the present. Topics include World War II, the Cold War, social unrest, the Vietnam War, the Great Society, and current political trends. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in recent America. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HIS 236 North Carolina History (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

HOR – HORTICULTURE

HOR 101 Pract Greenhouse Skills (1 9 0 4)
Prerequisites: None; Corequisites: None
This course covers general principles and applications of greenhouse operations. Topics include greenhouse materials, production, sales, and other related topics. Upon completion, students should be able to identify common greenhouse plant materials, demonstrate customer service skills, demonstrate propagation practices, and understand greenhouses and related structures. This is a certificate-level course.

HOR 102 Pract Nursery Skills (1 6 0 3)
Prerequisites: None; Corequisites: None
This course covers general principles and applications of nursery operations. Topics include nursery materials, production, sales, and other related topics. Upon completion, students should be able to identify common nursery plant materials, demonstrate nursery propagation practices, and understand field and container stock production. This is a certificate-level course.

HOR 103 Pract Landscape Skills (1 9 0 4)
Prerequisites: None; Corequisites: None
This course covers general principles and applications of landscape operations. Topics include landscape materials, design, installation, maintenance, and other related topics. Upon completion, students should be able to identify common landscape plant materials, demonstrate design principles, and understand installation and maintenance techniques, tools, and equipment. This is a certificate-level course.

HOR 104 Pract Grounds Skills (1 6 0 3)
Prerequisites: None; Corequisites: None
This course covers general principles and applications of grounds management operations. Topics include turf management, grounds maintenance techniques, and other related topics. Upon completion, students should be able to identify tools and equipment, demonstrate the safe use of tools and equipment, and understand turfgrass and grounds maintenance principles. This is a certificate-level course.

HOR 107 Controlled Work Exp I (0 10 0 1)
Prerequisites: None; Corequisites: None
This course provides experience in a controlled work environment. Emphasis is placed on integrating classroom learning with related work experience in greenhouse production and sales and landscape winterizing techniques. Upon completion, students should be able to demonstrate employable skills and satisfactorily perform work-related competencies. This is a certificate-level course (Greenhouse and Grounds Maintenance only).

HOR 108 Controlled Work Exp II (0 10 0 1)
Prerequisites: None; Corequisites: None
This course provides experience in a controlled work environment. Emphasis is placed on integrating classroom learning with related work experience in spring seasonal landscape installation and maintenance and commercial plant production. Upon completion, students should be able to demonstrate employable skills and satisfactorily perform work-related competencies. This is a certificate-level course (Greenhouse and Grounds Maintenance only).

HOR 109 Controlled Work Exp III (0 10 0 1)
Prerequisites: None; Corequisites: None
This course provides experience in a controlled work environment. Emphasis is placed on integrating classroom learning with related work experience in landscape and grounds maintenance. Upon completion, students should be able to demonstrate employable skills and satisfactorily perform work-related competencies. This is a certificate-level course (Greenhouse and Grounds Maintenance only).
HOR 112 Landscape Design I (2 3 0 3)
Prerequisites: None; Corequisites: None
This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization. Upon completion, students should be able to read, plan, and draft a landscape design.

HOR 114 Landscape Construction (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

HOR 124 Nursery Operations (2 3 0 3)
Prerequisites: None; Corequisites: None
This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media, and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.

HOR 134 Greenhouse Operations (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

HOR 160 Plant Materials I (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 162 Applied Plant Science (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.

HOR 164 Horticulture Pest Management (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license.

HOR 166 Soils & Fertilizers (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation, classification, physical and chemical properties, testing, fertilizer application, and other amendments. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media.

HOR 168 Plant Propagation (2 2 0 3)
Prerequisites: None; Corequisites: None
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.

HOR 225 Nursery Production (2 3 0 3)
Prerequisites: None; Corequisites: None
This course covers all aspects of nursery crop production. Emphasis is placed on field production and covers soils, nutrition, irrigation, pest control, and harvesting. Upon completion, students should be able to produce a marketable nursery crop.

HOR 260 Plant Materials II (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, culture requirements, and landscape uses. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.
HUM 110 Technology and Society (3 0 0 3)
*Prerequisites: None; Corequisites: None*
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

HUM 115 Critical Thinking (3 0 0 3)
*Prerequisites: ENG 101 or ENG 111; Corequisites: None*
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

HYD 110 Hydraulics/Pneumatics I (2 3 0 3)
*Prerequisites: None; Corequisites: None*
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 112 Hydraulics/Med/Heavy Duty (1 2 0 2)
*Prerequisites: None; Corequisites: None*
This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

INT 110 International Business (3 0 0 3)
*Prerequisites: None; Corequisites: None*
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. *This course is also available through the Virtual Learning Community.*

ISC 112 Industrial Safety (2 0 0 2)
*Prerequisites: None; Corequisites: None*
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. *This course is also available through the Virtual Learning Community (VLC).*

ISC 121 Environmental Health & Safety (3 0 0 3)
*Prerequisites: None; Corequisites: None*
This course covers workplace environmental, health, and safety issues. 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 issues.

ISC 131 Quality Management (3 0 0 3)
*Prerequisites: None; Corequisites: None*
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 132 Mfg. Quality Control (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC 133 Mfg. Management Practices (2 0 0 2)
Prerequisites: None; Corequisites: None
This course covers successful industrial organizations and management practices for improving quality and productivity. Topics include self-managed work teams, problem-solving skills, and production management techniques. Upon completion, students should be able to demonstrate an understanding of day-to-day plant operations, team management processes, and the principles of group dynamics.

ISC 221 Statistical Quality Control (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

ITN 110 Intro to Web Graphics (2 2 0 3)
Prerequisites: None; Corequisites: None
This course is the first of two courses covering the creation of web graphics, addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, type conversion, RGB color, the browser-safe palette, elementary special effects, image maps, and other related topics. Upon completion, students should be able to create graphics such as banners buttons, backgrounds, and other graphics for Web pages.

ITN 130 Web Site Management (2 2 0 3)
Prerequisites: None; Corequisites: None
This course covers the issues involved in web site architecture. Topics include operating system directory structures, web site structural design, web site navigation, web site maintenance, backup and security. Upon completion, students should be able to design a web site directory plan optimized for navigation and ease of maintenance.

ITN 140 Web Development Tools (2 2 0 3)
Prerequisites: None; Corequisites: None
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.

ITN 150 Internet Protocols (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the student to the application protocols used on the Internet. Topics include HTTP, Secure HTTP, TCP/IP, and related applications such as FTP, TELNET, and PING. Upon completion, students should be able to use the protocols as they pertain to the Internet, as well as, setup and maintain these protocols.

ITN 160 Principles of Web Design (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces intermediate to advanced web page design techniques. Topics include effective use of graphics, fonts, colors, navigation tools, advanced markup language elements, as well as a study of bad design techniques. Upon completion, the student should be able to employ advanced design techniques to create high impact and highly functional web pages.

ITN 170 Intro to Internet Databases (2 2 0 3)
Prerequisites: None; Corequisites: None
This is the first of two courses introducing the use of databases to store, retrieve and query data through HTML forms. Topics include database design for Internet database, use of ODBC-compliant databases. Upon completion, students should be able to create and maintain a database that will collect, query and report on data via an HTML form.

ITN 180 Active Server Programming (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces Active Server Programming. Topics include Jscript, VBScript, HTML forms processing, and the Active Server Object Model. Upon completion, students should be able to create and maintain Active Server applications.

ITN 289 Internet Technologies Project (1 4 0 3)
Prerequisites: None; Corequisites: None
This course provides an opportunity to complete a significant Internet technologies project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete an Internet project from the definition phase through implementation.
LEX 110 Intro to Paralegal Study (2 0 0 2)
Prerequisites: None; Corequisites: None
This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.

LEX 120 Legal Research/Writing I (2 2 0 3)
Prerequisites: None; Corequisites: None
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 0 3)
Prerequisites: LEX 120; Corequisites: None
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 0 3)
Prerequisites: None; Corequisites: None
This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140 Civil Litigation I (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the structure of the legal system and the rules governing civil litigation. Emphasis is placed on jurisdiction and the state and federal rules of civil procedure and rules of evidence. Upon completion, students should be able to assist an attorney in the preparation of a civil case.

LEX 141 Civil Litigation II (2 2 0 3)
Prerequisites: LEX 140; Corequisites: None
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 (2 2 0 3)
Prerequisites: None; Corequisites: None
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 151 Commercial Law II (3 0 0 3)
Prerequisites: LEX 150; Corequisites: None
This course is a continuation of LEX 150 and covers advanced topics in Business and Commercial Law. Topics include agency and employment, insurance, computer law, intellectual property, personal property and bailment, corporate organizations and bankruptcy. Upon completion, students should be able to apply legal principles governing these topics and be able to draft a variety of financial instruments.

LEX 160 Criminal Law & Procedure (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law (2 0 0 2)
Prerequisites: None; Corequisites: None
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 210 Real Property I (3 0 0 3)
*Prerequisites: None; Corequisites: None*
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 0 3)
*Prerequisites: LEX 210; Corequisites: None*
This course continues the study of real property law relating to title examination and preparation of closings 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, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 214 Investigation & Trial Prep (1 4 0 3)
*Prerequisites: LEX 210; Corequisites: None*
This course introduces the fundamentals of investigation. Topics include compiling/assembling data for cases; investigative planning/information gathering techniques; locating/interviewing witnesses; collection/preserving/evaluating sufficiency/admissibility of evidence; preparation of reports; and evidence presentation at depositions/court proceeding. Upon completion, students should be able to plan/use investigative checklists, understand/demonstrate investigative techniques, prepare reports, and enhance verbal and interpersonal communications skills and interviewing techniques.

LEX 240 Family Law (3 0 0 3)
*Prerequisites: None; Corequisites: None*
This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250 Wills, Estates, & Trusts (2 2 0 3)
*Prerequisites: None; Corequisites: None*
This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, interstate 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 (2 0 0 2)
*Prerequisites: None; Corequisites: None*
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 270 Law Office Mgt/Technology (1 2 0 2)
*Prerequisites: None; Corequisites: None*
This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to establish and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LSG – LANDSCAPE GARDENING

LSG 111 Basic Landscape Tech (2 0 0 2)
*Prerequisites: None; Corequisites: None*
This course introduces basic principles essential to landscape gardening. Topics include soils, propagation, watering, fertilizing, pruning, pest control, and planting. Upon completion, students should be able to perform basic gardening techniques essential to maintaining a landscape.

LSG 121 Fall Gardening Lab (0 6 0 2)
*Prerequisites: None; Corequisites: None*
This course provides hands-on experience in fall gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, and equipment operation. Upon completion, students should be able to perform various techniques essential to maintaining the autumn landscape.

LSG 122 Spring Gardening Lab (0 6 0 2)
*Prerequisites: None; Corequisites: None*
This course provides familiarization with basic gardening techniques by performing practical hands-on exercises required for the spring season. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, and landscape construction. Upon completion, students should be able to satisfactorily perform various practices essential to maintaining the landscape in the spring season.
LSG 123 Summer Gardening Lab (0 6 0 2)
Prerequisites: None; Corequisites: None
This course provides basic hands-on experience in summer gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, landscape construction, and maintaining fruits and vegetables. Upon completion, students should be able to perform various techniques essential to maintaining the summer landscape.

LSG 231 Landscape Supervision (2 6 0 4)
Prerequisites: LSG 123 and HOR 260; Corequisites: None
This course provides experience in planning, implementing, and supervising various landscape management projects. Emphasis is placed on supervisory skills, organizing, and scheduling. Upon completion, students should be able to supervise employees in various landscape management jobs.

MAC – MACHINING

MAC 111 Machining Technology I (2 12 0 6)
Prerequisites: None; Corequisites: None
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 112 Machining Technology II (2 12 0 6)
Prerequisites: MAC 111; Corequisites: None
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 113 Machining Technology III (2 12 0 6)
Prerequisites: MAC 112; Corequisites: None
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 114 Intro to Metrology (2 0 0 2)
Prerequisites: None; Corequisites: None
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 116 Basic Fabricating Processes (3 12 0 7)
Prerequisites: None; Corequisites: None
This course covers shear, turret punch, and press brake work. Emphasis is placed on standard sheet metal sizes, gages, and tolerances. Upon completion, students should be able to calculate bend allowance and sequence and lay out and fabricate parts on manual punch and press brakes.

MAC 117 Metal Forming Skills I (2 6 0 4)
Prerequisites: None; Corequisites: None
This course is designed to prepare students to operate equipment used in metal forming production shops. Emphasis is placed on tooling skills, work planning, handling of materials, operation of metal forming equipment, inspection, quality assurance, and safety. Upon completion, students should be able to operate metal forming workstations.

MAC 122 CNC Turning (1 3 0 2)
Prerequisites: None; Corequisites: None
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 CNC Milling (1 3 0 2)
Prerequisites: None; Corequisites: None
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 131 Blueprint Reading/Mach I (1 2 0 2)
Prerequisites: None; Corequisites: None
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.
MAC 132 Blueprint Reading/Mach II (1 2 0 2)
Prerequisites: MAC 131; Corequisites: None
This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true projection, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

MAC 151 Machining Calculations (1 2 0 2)
Prerequisites: None; Corequisites: None
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 241 Jigs & Fixtures I (2 6 0 4)
Prerequisites: MAC 112; Corequisites: None
This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.

MAC 243 Die Making I (2 6 0 4)
Prerequisites: MAC 112; Corequisites: None
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 245 Mold Construction I (2 6 0 4)
Prerequisites: MAC 112; Corequisites: None
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.

MAT 050 Basic Math Skills (3 2 0 4)
Prerequisites: None; Corequisites: None
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 (3 2 0 4)
Prerequisites: MAT 050; Corequisites: None
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 (3 2 0 4)
Prerequisites: MAT 060; Corequisites: RED 080 and ENG 085
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 (3 2 0 4)
Prerequisites: MAT 070; Corequisites: RED 080 and ENG 085
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 090 Accelerated Algebra (3 2 0 4)
Prerequisites: MAT 060; Corequisites: RED 080 and ENG 085
This course covers algebraic concepts with emphasis on applications. Topics include those covered in MAT 070 and MAT 080. Upon completion, students should be able to apply algebraic concepts in problem solving using appropriate technology.

MAT 101 Applied Mathematics I (2 2 0 3)
Prerequisites: MAT 060; Corequisites: None
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.
MAT 115 Mathematical Models (3 0 0 3)
*Prerequisites:* MAT 070; *Corequisites:* None
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, functional 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 121 Algebra and Trigonometry (2 2 0 3)
*Prerequisites:* MAT 070; *Corequisites:* None
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

MAT 122 Algebra/Trigonometry II (2 2 0 3)
*Prerequisites:* MAT 121; *Corequisites:* None
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 Mathematic (3 0 0 3)
*Prerequisites:* MAT 070; *Corequisites:* None
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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

MAT 141 Mathematical Concepts I (3 0 0 3)
*Prerequisites:* MAT 080 or MAT 090; *Corequisites:* None
This course is the first of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on sets, logic, number bases, elementary number theory, introductory algebra, measurement including metrics, and problem solving. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

MAT 142 Mathematical Concepts II (3 0 0 3)
*Prerequisites:* MAT 141; *Corequisites:* None
This course is the second of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on probability, statistics, functions, introductory geometry, and mathematics of finance. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts and utilize technology as a mathematical tool. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

MAT 151 Statistics I (3 0 0 3)
*Prerequisites:* MAT 080 or MAT 090; *Corequisites:* None
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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

MAT 161 College Algebra (3 0 0 3)
*Prerequisites:* MAT 080 or MAT 090; *Corequisites:* None
This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, 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. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*
MAT 162 College Trigonometry (3 0 0 3)
Prerequisites: MAT 161; Corequisites: None
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. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 165 Finite Mathematics (3 0 0 3)
Prerequisites: MAT 161; Corequisites: None
This course provides topics used to formulate models and to solve and interpret solutions using an algorithmic approach. Topics include linear algebra, linear programming, simplex method, sets and counting, probability, mathematics of finance, and logic. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts of finite mathematics and the ability to solve related problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 171 Precalculus Algebra (3 0 0 3)
Prerequisites: MAT 080 or MAT 090; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 172 Precalculus Trigonometry (3 0 0 3)
Prerequisites: MAT 171; Corequisites: None
This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 175 Precalculus (4 0 0 4)
Prerequisites: MAT 080; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 263 Brief Calculus (3 0 0 3)
Prerequisites: MAT 161; Corequisites: None
This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 271 Calculus I (3 2 0 4)
Prerequisites: MAT 172 or MAT 175; Corequisites: None
This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 272 Calculus II (3 2 0 4)
Prerequisites: MAT 271; Corequisites: None
This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
MAT 273 Calculus III (3 2 0 4)
Prerequisites: MAT 272; Corequisites: None
This course covers the calculus of several variables and is 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

MAT 280 Linear Algebra (3 0 0 3)
Prerequisites: MAT 271; Corequisites: None
This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement premajor and/or elective course requirement.

MAT 285 Differential Equations (3 0 0 3)
Prerequisites: MAT 272; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

MEC 111 Machine Processes I (1 4 0 3)
Prerequisites: None; Corequisites: None
This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to safely machine simple parts to specified tolerances.

MEC 145 Mfg. Materials I (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.

MEC 231 Computer-Aided Manufacturing I (1 4 0 3)
Prerequisites: None; Corequisites: None
This course introduces computer-aided manufacturing (CAM) applications and concepts. Emphasis is placed on developing/defining part geometry and the processing of information needed to manufacture parts. Upon completion, students should be able to demonstrate skills in defining part geometry, program development, and code generation using CAM software.

MED 110 Orientation to Med Assist (1 0 0 1)
Prerequisites: Admission to Medical Assisting Program; Corequisites: MED 118, MED 130 or Departmental Permission
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 118 Medical Law and Ethics (2 0 0 2)
Prerequisites: Admission to Medical Assisting Program; Corequisites: MED 110, MED 130 or Departmental Permission
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 120 Survey of Med Terminology (2 0 0 2)
Prerequisites: None; Corequisites: None
This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

MED 121 Medical Terminology I (3 0 0 3)
Prerequisites: None; Corequisites: None
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)
Prerequisites: MED 121; Corequisites: None
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 Admin Office Proc I (1 2 0 2)
Prerequisites: Admission to Medical Assisting Program; Corequisites: MED 110, MED 118 or Departmental Permission
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 Admin Office Proc II (1 2 0 2)
Prerequisites: MED 130; Corequisites: MED 140, MED 150 or Departmental Permission
This course is the second in a series and 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 134 Medical Transcription (2 2 0 3)
Prerequisites: MED 121 and MED 122; Corequisites: MED 232 or Departmental Permission
This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.

MED 140 Exam Room Procedures I (3 4 0 5)
Prerequisites: MED 110; Corequisites: MED 150, MED 131 or Departmental Permission
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

MED 150 Laboratory Procedures I (3 4 0 5)
Prerequisites: MED 110; Corequisites: MED 140, MED 131 or Departmental Permission
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 232 Medical Insurance Coding (1 3 0 2)
Prerequisites: MED 131; Corequisites: MED 134 or Departmental Permission
This course is designed to build upon the coding skills introduced in MED 131. 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)
Prerequisites: MED 140, MED 260 & MED 262; Corequisites: None
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 Med Clinical Externship (0 0 1 5 5)
Prerequisites: MED 140, MED 150; Corequisites: MED 262
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.
MED 262 Clinical Perspectives (1 0 0 1)
Prerequisites: MED 140, MED 150; Corequisites: MED 260
This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED 264 Medical Assisting Overview (2 0 0 2)
Prerequisites: MED 240; Corequisites: MED 272, MED 276, MED 270 or Departmental Permission
This course provides an overview of the complete medical assisting curriculum. Emphasis is placed on all facets of medical assisting pertinent to administrative, laboratory, and clinical procedures performed in the medical environment. Upon completion, students should be able to demonstrate competence in the areas covered on the national certification examination for medical assistants.

MED 270 Symptomatology (2 2 0 3)
Prerequisites: MED 240; Corequisites: MED 276, MED 272, MED 264 or Departmental Permission
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)
Prerequisites: MED 240; Corequisites: MED 276, MED 270, MED 264 or Departmental Permission
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 276 Patient Education (1 2 0 2)
Prerequisites: MED 240; Corequisites: MED 270, MED 272, MED 264 or Departmental Permission
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.

MKT – MARKETING

MKT 120 Principles of Marketing (3 0 0 3)
Prerequisites: None; Corequisites: None
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 220 Advertising and Sales Promotions (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

MRI – MAGNETIC RESONANCE IMAGING

Program enrollment required to take MRI courses.

MRI 210 MRI Physics and Equipment (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers the physical principles of image formation, data acquisition, and image processing in magnetic resonance imaging. Emphasis is placed on instrumentation, fundamentals, pulse sequences, data manipulation, imaging parameters, options, and their effects on image quality. Upon completion, students should be able to understand the principles behind image formation, data acquisition, and image processing in magnetic resonance imaging.

MRI 211 MRI Procedures (4 0 0 4)
Prerequisites: None; Corequisites: None
This course covers patient care, magnetic field safety, cross-sectional anatomy, contrast media, and scanning procedures in magnetic resonance imaging. Emphasis is placed on patient assessment and monitoring, safety precautions, contrast agents' use, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of imaging procedures in magnetic resonance imaging.
MRE 231 MRI Clinical Practicum (0 0 33 11)
Prerequisites: None; Corequisites: None
This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

**MTH – THERAPEUTIC MASSAGE**

MTH 110 Therapeutic Massage I (6 12 0 10)
Prerequisites: Admission to the Therapeutic Massage Program; Corequisites: None
This course introduces concepts basic to the role of the massage therapist. Emphasis is placed on beginning theory and techniques of body work as well as skill in therapeutic touch. Upon completion of the course, the student should be able to apply basic practical massage therapy skills.

MTH 120 Therapeutic Massage I (6 12 0 10)
Prerequisites: MTH 110; Corequisites: None
This course provides an expanded knowledge and skill base for the massage therapist. Emphasis is placed on selected therapeutic approaches throughout the lifespan. Upon completion, students should be able to perform entry level therapeutic massage on various populations.

MTH 125 Therapeutic Massage III (2 0 0 2)
Prerequisites: MTH 120; Corequisites: None
This course is designed to explore issues related to the practice of massage therapy. Emphasis is placed on ethical, legal, professional, and political issues. Upon completion, students should be able to discuss issues relating to the practice of massage therapy, client/therapist relationships as well as ethical issues.

MTH 210 Therapeutic Massage IV (4 12 0 8)
Prerequisites: MTH 125; Corequisites: None
This course provides knowledge and skills in diverse body work modalities. Emphasis is placed on selected techniques such as Neuromuscular Therapy, Sports Massage, Soft Tissue Release, Spa Approaches, Oriental Therapies, and energy techniques. Upon completion, students should be able to perform basic skills in techniques covered.

MTH 220 Therapeutic Massage V (4 9 0 7)
Prerequisites: MTH 210; Corequisites: COE 111
This course provides knowledge and skills in more complex body works modalities. Emphasis is placed on developing advanced skills in outcome-based massage. Upon completion, students should be able to perform basic skills in techniques covered.

**MUS – MUSIC**

MUS 110 Music Appreciation (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 111 Fundamentals of Music (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 113 American Music (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 121 Music Theory I (3 2 0 4)
Prerequisites: None; Corequisites: None
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 122 Music Theory II (3 2 0 4)
Prerequisites: MUS 121; Corequisites: None
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and
This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MUS 131 Chorus I (0 2 0 1)**

**Prerequisites:** None; **Corequisites:** None

This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 132 Chorus II (0 2 0 1)**

**Prerequisites:** MUS 131; **Corequisites:** None

This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 133 Band I (0 2 0 1)**

**Prerequisites:** None; **Corequisites:** None

This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 134 Band II (0 2 0 1)**

**Prerequisites:** MUS 133; **Corequisites:** None

This course is a continuation of MUS 133. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 141 Ensemble I (0 2 0 1)**

**Prerequisites:** None; **Corequisites:** None

This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 142 Ensemble II (0 2 0 1)**

**Prerequisites:** MUS 141; **Corequisites:** None

This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 151 Class Music I (0 2 0 1)**

**Prerequisites:** None; **Corequisites:** None

This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 152 Class Music II (0 2 0 1)**

**Prerequisites:** MUS 151; **Corequisites:** None

This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**MUS 154 Applied Music I (1 2 0 2)**

**Prerequisites:** None; **Corequisites:** None

This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 161P for piano. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*
MUS 162 Applied Music II (1 2 0 2)
Prerequisites: MUS 161; Corequisites: None
This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 162P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 170 Business of Music (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces the basic elements of the music business. Topics include copyright law, musical arrangements and abridgements, recording and songwriting contracts, agents and managers, performing rights organizations, and the musician's union. Upon completion, students should be able to demonstrate an understanding of the basic elements of the music business. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 217 Elementary Conducting (1 2 0 2)
Prerequisites: MUS 111; Corequisites: None
This course introduces the basic patterns and skills for conducting instrumental and vocal groups. Emphasis is placed on conducting beat patterns, expressive gestures, fermatas, accents, tempos, and rehearsal techniques. Upon completion, students should be able to demonstrate the above skills by conducting vocal and/or instrumental groups. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 221 Music Theory III (3 2 0 4)
Prerequisites: MUS 122; Corequisites: None
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 222 Music Theory IV (3 2 0 4)
Prerequisites: MUS 221; Corequisites: None
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 231 Chorus III (0 2 0 1)
Prerequisites: MUS 132; Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 232 Chorus IV (0 2 0 1)
Prerequisites: MUS 231; Corequisites: None
This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 233 Band III (0 2 0 1)
Prerequisites: MUS 134; Corequisites: None
This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 234 Band IV (0 2 0 1)
Prerequisites: MUS 233; Corequisites: None
This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 241 Ensemble III (0 2 0 1)
Prerequisites: MUS 142; Corequisites: None
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 242 Ensemble IV (0 2 0 1)
Prerequisites: MUS 241; Corequisites: None
This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 261 Applied Music III (1 2 0 2)
Prerequisites: MUS 162; Corequisites: None
This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 261P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 262 Applied Music IV (1 2 0 2)
Prerequisites: MUS 261; Corequisites: None
This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 262P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 280 Music for the El Classroom (3 0 0 3)
Prerequisites: MUS 110; Corequisites: None
This course covers the skills necessary for teaching music in the elementary school. Emphasis is placed on integrating music activities which are suitable for all ages of elementary students, including theory, performance, and conducting, into classroom activities. Upon completion, students should be able to utilize a variety of music activities in the elementary school classroom. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

NET – NETWORKING TECHNOLOGY

NET 110 Data Communication/Networking (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

NET 122 Secure Communications (2 2 0 3)
Prerequisites: NET 112 and CIS 173 or CIS 282 or NET 110; Corequisites: None
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL and SSH. Upon completion, students should be able to implement secure data transmission technologies.

NET 260 Internet Dev & Support (3 0 0 3)
Prerequisites: NET 110; Corequisites: None
This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization.

NMT – NUCLEAR MEDICINE

Program enrollment required to take NMT courses.

NMT 110 Intro to Nuclear Medicine (2 0 0 2)
Prerequisites: None; Corequisites: None
This course provides a comprehensive introduction to the field of nuclear medicine. Topics include overview of school, program, and profession; medical terminology and ethics; medical legal issues; general patient care and radiation safety practices; and departmental organization. Upon completion, students should be able to utilize various learning resources and
demonstrate understanding of radiation safety standards and ethical, professional conduct.

NMT 126 Nuclear Physics (2002)
Prerequisites: NMT 110; Corequisites: None
This course introduces the fundamental principles of the physics that underlie nuclear medicine. Topics include atomic structure, electromagnetic and particulate radiation, decay schemes, production of radionuclides with emphasis on radionuclide generators, and decay calculations. Upon completion, students should be able to demonstrate an understanding of the physical concepts covered in the course.

NMT 132 Overview-Clinical Nuc Med (2064)
Prerequisites: NMT 110; Corequisites: None
This course is designed to familiarize students with the clinical practice of nuclear medicine. Emphasis is placed on the routine clinical procedures, radiopharmaceuticals and dosage, equipment manipulation, and basic patient care. Upon completion, students should be able to demonstrate integration of the principles covered in the classroom with the clinical experience.

NMT 134 Nuclear Pharmacy (2002)
Prerequisites: NMT 110; Corequisites: None
This course covers the formulation and application of radiopharmaceuticals. Topics include the preparation, handling, disposition, and quality control of clinically useful radiopharmaceuticals. Upon completion, students should be able to discuss the appropriate use and disposition of radiopharmaceuticals currently used in clinical nuclear medicine.

NMT 214 Radiobiology (2002)
Prerequisites: NMT 132; Corequisites: None
This course covers the principles of radiation biology. Emphasis is placed on a system's sensitivity to radiation, radiation pathology, and the biological effects of radiation. Upon completion, students should be able to demonstrate an understanding of the effects of radiation in nuclear medicine.

NMT 215 Non-Imaging Instrumentation (1302)
Prerequisites: NMT 132; Corequisites: None
This course covers the proper operation of various types of non-imaging equipment used in nuclear medicine. Emphasis is placed on principles of radiation detection, quality control procedures, various counting problems, and machine-specific operating procedures. Upon completion, students should be able to demonstrate the proper use of the devices discussed in the course.

Prerequisites: NMT 132; Corequisites: None
This course provides a general introduction to the operation of computers and the application of computers to the field of nuclear medicine. Topics include number systems, major system components, input/output devices, and acquisition and processing of nuclear medicine images. Upon completion, students should be able to demonstrate an understanding of the concepts presented.

NMT 221 NMT Clinical Practice II (00217)
Prerequisites: NMT 132; Corequisites: None
This course is one of two courses designed to provide clinical practice in nuclear medicine. Topics include radiation protection, radiopharmaceutical use, patient care, imaging procedures, non-imaging procedures, administrative procedures, and the therapeutic use of radionuclides. Upon completion, students should be able to demonstrate performance of the procedures covered in this course.

Prerequisites: NMT 132; Corequisites: None
This course concludes the in-depth study of clinical procedures performed in nuclear medicine. Topics include method of dose administration, data acquisition parameters, computer use, and data patterns consistent with normal and described pathological states. Upon completion, students should be able to demonstrate an understanding of the principles related to the procedures discussed in the course.

NMT 224 In Vitro Procedures (2002)
Prerequisites: NMT 132; Corequisites: None
This course introduces the area of in vitro nuclear medicine. Emphasis is placed on laboratory skills; selected aspects of chemistry, biochemistry, and immunology; procedures for
common assays; and laboratory safety. Upon completion, students should be able to demonstrate an understanding of the concepts presented.

NMT 225 Imaging Instrumentation (1 3 0 2)
Prerequisites: NMT 132; Corequisites: None
This course covers the operations of various imaging equipment used in nuclear medicine. Emphasis is placed on planar and SPECT gamma cameras. Upon completion, students should be able to safely operate and evaluate performance characteristics of the equipment discussed in the course.

NUR 110 Nursing I (5 3 6 8)
Prerequisites: Admission to Associate Degree Nursing Program; Corequisites: NUR 118 or Departmental Permission
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 116 Nursing of Older Adults (2 3 3 4)
Prerequisites: NUR 110, NUR 118; Corequisites: NUR 120, or Departmental Permission
This course provides an opportunity to utilize the provider of care and manager of care roles to meet nursing needs of older adults in a variety of settings. Emphasis is placed on the aging process as it applies to normal developmental changes and alterations in health commonly occurring in the older adult. Upon completion, students should be able to apply the nursing process in caring for the older adult.

NUR 118 Nutrition/Diet Therapy (2 0 0 2)
Prerequisites: None; Corequisites: NUR 110 or Departmental Permission
This course covers the six nutrient categories and provides an overview of diet recommendations for promotion and maintenance of health. Topics include the food pyramid recommendations for individuals across the life span, energy balance, and special dietary modifications for common alterations in health. Upon completion, students should be able to complete a nutritional assessment, analyze diets, and recommend dietary adaptations to meet individual health needs.

NUR 120 Nursing II (5 3 6 8)
Prerequisites: NUR 110, NUR 118; Corequisites: NUR 116 or Departmental Permission
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. The content of this course will focus on the nursing care of individuals with common medical-surgical diseases and disorders.

NUR 130 Nursing III (4 3 6 7)
Prerequisites: NUR 120, NUR 116; Corequisites: None
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. The content of this course will focus on obstetrics and woman’s health.

NUR 210 Nursing IV (5 3 12 10)
Prerequisites: NUR 130; Corequisites: None
This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on using collaboration as a provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to modify nursing care for individuals with common alterations in health. The content of this two-part course will focus on the nursing care of adults and children with psychiatric disorders and chronic illnesses.

NUR 220 Nursing V (4 3 15 10)
Prerequisites: NUR 210; Corequisites: NUR 255 or Departmental Permission
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. The content of this course will focus on the nursing care of individuals with complex medical-surgical diseases and disorders.

NUR 255 Professional Issues (3 0 0 3)
Prerequisites: NUR 210; Corequisites: NUR 220 or Departmental Permission
This course explores basic concepts of practice in the management of patient care in a complex health care system. Emphasis is placed on professional, legal, ethical, and political issues and management concepts. Upon completion, students should be able to articulate professional and management concepts. This course includes principles of supervision, delegation, leadership styles, change theory and conflict resolution.
NUT – NUTRITION

NUT 110 Nutrition (3 0 0 3)
Prerequisites: None; Corequisites: None
This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well-being.

OMT – OPERATIONS MANAGEMENT

OMT 112 Materials Management (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

OST – OFFICE SYSTEMS TECHNOLOGY

OST 131 Keyboarding (1 2 0 2)
Prerequisites: None; Corequisites: None
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 (1 2 0 2)
Prerequisites: OST 131; Corequisites: None
This course provides accuracy- and speed-building drills. 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 0 3)
Prerequisites: OST 131 and OST 132; Corequisites: None
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 mailable documents and key timed writings at speeds commensurate with employability.

OST 136 Word Processing (1 2 0 2)
Prerequisites: OST 131; Corequisites: None
This course introduces 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 148 Medical Coding Billing & Insurance (3 0 0 3)
Prerequisites: MED 121 and MED 122; Corequisites: None
This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy.

OST 149 Medical Legal Issues (3 0 0 3)
Prerequisites: None; Corequisites: None
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 162 Executive Terminology (3 0 0 3)
Prerequisite: None; Corequisites: None
This course is designed to increase and improve proficiency in word usage. Topics include root words, prefixes, suffixes, homonyms, synonyms, and specialized vocabularies. Upon completion, students should be able to use acquired vocabulary skills in the global workplace.

OST 164 Text Editing Applications (3 0 0 3)
Prerequisites: OST 131; Corequisites: None
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST 184 Records Management (1 2 0 2)
Prerequisites: None; Corequisites: None
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.
OST 233 Office Publications Design (2 2 0 3)
Prerequisites: OST 136; Corequisites: None
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 Advanced Word/Information Processing (2 2 0 3)
Prerequisites: OST 136; Corequisites: None
This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents.

OST 241 Medical Office Transcription I (1 2 0 2)
Prerequisites: MED 122 or OST 142 and OST 136; Corequisites: None
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 243 Medical Office Simulation (2 2 0 3)
Prerequisites: MED 122 & OST 148; Corequisites: None
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 284 Emerging Technologies (1 2 0 2)
Prerequisites: None; Corequisites: None
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

OST 289 Office Systems Management (2 2 0 3)
Prerequisites: OST 134 and OST 136 and OST 164; Corequisites: None
This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

PBT 100 Phlebotomy Technology (5 2 0 6)
Prerequisites: Enrollment in the Phlebotomy Technology Program; Corequisites: PBT 101
This course provides instruction in the skills needed for the proper collection of blood and other specimens for diagnostic testing. Emphasis is in ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques. This is a certificate-level course.

PBT 101 Phlebotomy Practicum (0 0 9 3)
Prerequisites: Enrollment in the Phlebotomy Technology Program; Corequisites: PBT 100
This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings. This is a certificate-level course.

PED 110 Fit and Well for Life (1 2 0 2)
Prerequisites: None; Corequisites: None
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 111 Physical Fitness I (0 3 0 1)
Prerequisites: None; Corequisites: None
This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 112 Physical Fitness II (0 3 0 1)
This course is an intermediate-level fitness class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 113 Aerobics I (0 3 0 1)
Prerequisites: PED 111; Corequisites: None
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 114 Aerobics II (0 3 0 1)
Prerequisites: PED 113; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 117 Weight Training I (0 3 0 1)
Prerequisites: None; Corequisites: None
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight-training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 118 Weight Training II (0 3 0 1)
Prerequisites: PED 117; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 120 Walking for Fitness (0 3 0 1)
This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 122 Yoga I (0 2 0 1)
Prerequisites: None; Corequisites: None
This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 128 Golf-Beginning (0 2 0 1)
Prerequisites: None; Corequisites: None
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 129 Golf-Intermediate (0 2 0 1)
Prerequisites: PED 128; Corequisites: None
This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able to demonstrate the knowledge and ability to play a recreational round of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 130 Tennis-Beginning (0 2 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
PED 131 Tennis-Intermediate (0 0 0 1)
Prerequisites: PED 130; Corequisites: None
This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 132 Racquetball-Beginning (0 0 0 1)
Prerequisites: None; Corequisites: None
This course introduces the fundamentals of racquetball. Emphasis is placed on rules, fundamentals, and strategies of beginning racquetball. Upon completion, students should be able to play recreational racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 133 Racquetball-Intermediate (0 0 0 1)
Prerequisites: PED 132; Corequisites: None
This course covers more advanced racquetball techniques. Emphasis is placed on refining basic skills, performing advanced shots, and playing strategies for singles and doubles. Upon completion, students should be able to play competitive racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 137 Badminton (0 0 0 1)
Prerequisites: None; Corequisites: None
This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 138 Archery (0 0 0 1)
Prerequisites: None; Corequisites: None
This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 139 Bowling-Beginning (0 0 0 1)
Prerequisites: None Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 142 Lifetime Sports (0 0 0 1)
Prerequisites: None Corequisites: None
This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 143 Volleyball-Beginning (0 0 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 144 Volleyball-Intermediate (0 0 0 1)
Prerequisites: PED 143; Corequisites: None
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 145 Basketball-Beginning (0 0 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 146 Basketball-Intermediate (0 0 0 1)
Prerequisites: PED 145; Corequisites: None
This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
PED 147 Soccer (0 2 0 1)
Prerequisites: None; Corequisites: None
This course introduces the basics of soccer. Emphasis is placed on rules, strategies, and fundamental skills. Upon completion, students should be able to participate in recreational soccer. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 148 Softball (0 2 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 149 Flag Football (0 2 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 150 Swimming for Fitness (0 3 0 1)
Prerequisites: PED 152; Corequisites: None
This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 151 Water Aerobics (0 3 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 152 Canoeing—Basic (0 2 0 1)
Prerequisites: PED 152; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 153 Backpacking (0 2 0 1)
Prerequisites: None; Corequisites: None
This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 154 Water Aerobics (0 3 0 1)
Prerequisites: PED 152; Corequisites: None
This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 155 Water Aerobics (0 3 0 1)
Prerequisites: None; Corequisites: None
This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 156 Canoe—Basic (0 2 0 1)
Prerequisites: None; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 157 Nature Hiking (0 2 0 1)
Prerequisites: None; Corequisites: None
This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 158 Outdoor Living (1 2 0 2)
Prerequisites: None; Corequisites: None
This course is designed to acquaint the beginning camper with outdoor skills. Topics include camping techniques such as cooking and preserving food, safety, and setting up camp. Upon completion, students should be able to set up camp sites in field experiences using proper procedures. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 159 Wilderness Pursuits (0 1 0 2)
Prerequisites: None; Corequisites: None
This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 160 Snow Skiing—Beginning (0 2 0 1)
Prerequisites: None; Corequisites: None
This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in
snow skiing. Upon completion, students should be able to ski a
down slope, enter and exit a ski lift, and perform basic maneu-
vers on skis. This course has been approved to satisfy the Com-
prehensive Articulation Agreement for transferability as a
premajor and/or elective course requirement.

PED 186 Dancing for Fitness (0 2 0 1)
Prerequisites: None; Corequisites: None
This course is designed to develop movement and recreational
dance skills, safety, fitness, coordination, and techniques used
to teach various groups. Emphasis is placed on participation
and practice with adapting dances for ages and ability levels.
Upon completion, students should be able to demonstrate
knowledge of fitness through social, folk, and square dance
participation and instruction. This course has been approved to
satisfy the Comprehensive Articulation Agreement pre-major
and/or elective course requirement.

PED 211 New Games (0 2 0 1)
Prerequisites: None; Corequisites: None
This course includes explanation, demonstration, and partici-
pation in games that provide an alternative to traditional
sports. Emphasis is placed on playing for pleasure rather than
for competitive purposes. Upon completion, students should
be able to participate and lead others in participating in non-
competitive games. This course has been approved to satisfy the
Comprehensive Articulation Agreement for transferability as a
premajor and/or elective course requirement.

PHI – PHILOSOPHY

PHI 210 History of Philosophy (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
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 iden-
tify and distinguish among the key positions of the philoso-
phers studied. This course has been approved to satisfy the
Comprehensive Articulation Agreement general education core
requirement in humanities/fine arts.

PHI 215 Philosophical Issues (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course introduces fundamental issues in philosophy con-
sidering 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 to satisfy the Compre-
hensive Articulation Agreement general education core require-
ment in humanities/fine arts.

PHI 240 Introduction to Ethics (3 0 0 3)
Prerequisites: ENG 111; Corequisites: None
This course introduces theories about the nature and founda-
tions of moral judgments and applications to contemporary
moral issues. Emphasis is placed on utilitarianism, rule-based
ethics, existentialism, relativism versus objectivism, and ego-
ism. Upon completion, students should be able to apply vari-
ous ethical theories to individual moral issues such as
euthanasia, abortion, crime and punishment, and justice. This
course has been approved to satisfy the Comprehensive Articula-
tion Agreement general education core requirement in humani-
ties/fine arts. This course is also available through the Virtual
Learning Community (VLC).

PHO – PHOTOGRAPHY

PHO 132 Small-Format Photography (2 6 0 4)
Prerequisites: GRD 160; Corequisites: None
This course introduces small-format cameras and their appli-
cation in location portraiture, industrial photography, photo-
journalism, and multimedia photography and portable
lighting equipment and techniques. Topics include rapid cam-
era operation, location photography, exposure techniques,
portable flash, process modification, filtration, and simple
multimedia production. Upon completion, students should be
able to produce professional quality images under a variety of
adverse shooting conditions using the equipment and tech-
niques studied.

PHO 180 Creative Problem Solving (1 4 0 3)
Prerequisites: GRD 160; Corequisites: None
This course encourages the development of innovative photo-
graphic solutions to instructor-assigned tasks. Emphasis is
placed on identifying components necessary to complete the
task and applying creative solutions. Upon completion, stu-
dents should be able to solve problems in a variety of photo-
graphic areas, combining media where needed to achieve the
desired results.

PHO 217 Photojournalism I (1 6 0 4)
Prerequisites: GRD 160; Corequisites: None
This course covers logistics and techniques used in current
professional newspaper photography. Topics include detailed
study of spot and general news, sports, and feature photogra-
phy along with basic newspaper layout, advanced photo-
graphic techniques, and legal issues. Upon completion, stu-
dents should be able to demonstrate an understanding of
basic aspects of news, sports, and feature photography.
PHO 226 Portraiture (3 0 0 4)
Prerequisites: GRD 160; Corequisites: None
This course covers the techniques of contemporary studio and location portraiture. Topics include lighting techniques, lighting ratios, available light to multiple light setups, posing techniques, and styles of glamour, fashion, corporate, and public relations portraiture. Upon completion, students should be able to choose the appropriate lighting, accessories, and posing style to produce a successful portrait.

PHO 280 Photography Project (1 6 0 3)
Prerequisites: PHO 150; Corequisites: None
This course provides an opportunity to work in a specialized area of photography on an instructor-approved project. Emphasis is placed on the design and fulfillment of a project in macrophotography, photo bookmaking, or nature portfolio. Upon completion, students should be able to design and complete a photography project.

### PHY – PHYSICS

**PHY 110 Conceptual Physics (3 0 0 3)**
Prerequisites: None; Corequisites: None
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**PHY 110A Conceptual Physics Lab (0 2 0 1)**
Prerequisites: None; Corequisites: 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 to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**PHY 121 Applied Physics I (3 2 0 4)**
Prerequisites: None; Corequisites: None
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 122 Applied Physics II (3 2 0 4)**
Prerequisites: None; Corequisites: None
This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Emphasis is placed on systems of units, problem-solving methods, graphical analysis, static electricity, AC and DC circuits, magnetism, transformers, AC and DC motors, and generators. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

**PHY 131 Physics-Mechanics (3 2 0 4)**
Prerequisites: MAT 121 or MAT 161; Corequisites: None
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 150 College Physics I (3 2 0 4)**
Prerequisites: MAT 162 or MAT 172 or MAT 175; Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

**PHY 152 College Physics II (3 2 0 4)**
Prerequisites: PHY 151; Corequisites: None
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
PLA 110 Introduction to Plastics (2 0 0 2)
Prerequisites: None; Corequisites: None
This course introduces the plastics processing industry, including thermoplastics and thermosets. Emphasis is placed on the description, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermosets and recognize the basics of the different plastic processes.

PLA 115 Polymer Processing (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces theory and hands-on experience in common polymer processing techniques. Topics include injection molding, extrusion, thermoforming, blow molding, casting, roll forming, thermofusion, and other processes. Upon completion, students should be able to understand the setup, operation, and troubleshooting of common plastic processing equipment. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

PLA 120 Injection Molding (2 3 0 3)
Prerequisites: None; Corequisites: None
This course provides theory and processing experience with the injection molding process. Topics include machine type, molds, controls, machine-polymer part relationship, molding factors, troubleshooting, and molding problems/solutions. Upon completion, students should be able to demonstrate an understanding of machine setup and operation and be able to optimize common injection molding machines.

PLA 210 Mold Maintenance/Design (2 3 0 3)
Prerequisites: None; Corequisites: None
This course provides an in-depth study of the design, maintenance, and repair of molds used in the plastics industry. Topics include mold/die components, materials, types, functions, heating/cooling, designs, cleaning, and repair. Upon completion, students should be able to describe and utilize various types and functions of molds and gates and understand typical plastic design rules. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

PLA 215 Polymeric Materials (2 3 0 3)
Prerequisites: None; Corequisites: None
This course provides an overview of polymeric materials, from commodity grade to advanced/specialty resins. Topics include chemistry, properties, material characterization, testing, and toxicity. Upon completion, students should be able to demonstrate an understanding of the hierarchy of plastics and how it affects material selection, testing, and safety. This course is a unique concentration requirement in the Plastics concentration in the Manufacturing Technology program.

PLA 220 Moldflow (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces flow analysis software. Topics include mold flow design principles, concepts, material databases, model construction, and interpretation of results. Upon completion, students should be able to model a part/runner system, optimize gate location, analyze and interpret fill, and recommend design changes.

PLA 225 Extrusion (2 3 0 3)
Prerequisites: None; Corequisites: None
This course provides theory and processing experience with the extrusion molding process. Topics include safe start-up, operation, and shutdown of machines, machine components, blown film, sheet, coating, pipe/profiles, wire coating, and fibers. Upon completion, students should be able to setup, operate, and troubleshoot the extrusion process and its variations.

PLA 230 Adv Plastics Manufacturing (3 3 0 4)
Prerequisites: None; Corequisites: None
This course covers advanced plastics manufacturing processes. Topics include hands-on experience, material selection, manufacturing cost, process optimization, troubleshooting, and project management. Upon completion, students should be able to understand, perform, and troubleshoot advanced processes in a manufacturing environment.

PME – POWER MECHANICS

PME 211 Adv Equipment Repair (2 6 0 4)
Prerequisites: None; Corequisites: None
This course provides advanced training in equipment repair through hands-on training along with additional training aids. Emphasis is placed on systems and components found on construction equipment. Upon completion, students should be able to adjust, troubleshoot, and repair most construction equipment systems.
POL 110 Intro Political Science (3 0 0 3)
Prerequisites: None; Corequisites: None
This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

POL 120 American Government (3 0 0 3)
Prerequisites: None; Corequisites: None
This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

POL 130 State & Local Government (3 0 0 3)
Prerequisites: None; Corequisites: None
This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PSY 101 Applied Psychology (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

PSY 110 Life Span Development (3 0 0 3)
Prerequisites: None; Corequisites: None
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 135 Group Processes (3 0 0 3)
Prerequisites: None; Corequisites: None
This course provides an examination of group dynamics and structure. Topics include team-building, interpersonal communication, leadership, decision making, and problem solving. Upon completion, students should be able to demonstrate the knowledge and skills necessary for effective group participation.

PSY 150 General Psychology (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 237 Social Psychology (3 0 0 3)
Prerequisites: PSY 150 or SOC 210; Corequisites: None
This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 239 Psychology of Personality (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
PSY 241 Developmental Psych (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 243 Child Psychology (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course provides an overview of physical, cognitive, and psychosocial development from conception through adolescence. Topics include theories and research, interaction of biological and environmental factors, language development, learning and cognitive processes, social relations, and moral development. Upon completion, students should be able to identify typical and atypical childhood behavior patterns as well as appropriate strategies for interacting with children. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PSY 246 Adolescent Psychology (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
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 to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PSY 256 Exceptional Children (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course introduces major exceptionalities in children including mental, emotional, and physical variations; learning disabilities; and giftedness. Emphasis is placed on theoretical perspectives, identification methods, and intervention strategies. Upon completion, students should be able to demonstrate a general knowledge of the exceptionalities of children and recommended intervention techniques.

PSY 263 Educational Psychology (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PSY 281 Abnormal Psychology (3 0 0 3)
Prerequisites: PSY 150; Corequisites: None
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PTC – PHARMACEUTICAL TECHNOLOGY

PTC 110 Industrial Environment (3 0 0 3)
Prerequisites: None; Corequisites: None
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.

PTC 120 Pharmaceutical Quality Control (3 2 0 4)
Prerequisites: MAT 121 and PTC 110; Corequisites: None
This course covers the principles and techniques of quality control as found in the pharmaceutical industry. Emphasis is placed on lot inspection, sampling procedures, control charts, vendor auditing, statistical analysis, and Military Standard 105. Upon completion, students should be able to apply and follow the appropriate statistical sampling plans for Pharmaceutical Product Lot Acceptance.
PTC 228 Pharmaceutical Issues (1 0 0 1)
Prerequisites: PTC 110; Corequisites: None
This course provides a forum for discussion of current pharmaceutical topics. Emphasis is placed on events, news, regulations, and technology in pharmaceutical manufacturing. Upon completion, students should be able to demonstrate an understanding of the dynamic nature of the pharmaceutical industry.

RAD – RADIOGRAPHY

Program enrollment required to take RAD courses.

RAD 110 Radiography Introduction & Patient Care (2 3 0 3)
Prerequisites: None; Corequisites: RAD 111 and RAD 151
This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.

RAD 111 RAD Procedures I (3 3 0 4)
Prerequisites: None; Corequisites: RAD 110 and RAD 151
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

RAD 112 RAD Procedures II (3 3 0 4)
Prerequisites: RAD 110 and RAD 111 and RAD 151; Corequisites: None
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

RAD 121 Radiographic Imaging I (2 3 0 3)
Prerequisites: RAD 110 and RAD 111 and RAD 151; Corequisites: None
This course covers factors of image quality and methods of exposure control. Topics include density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control, and tube rating charts. Upon completion, students should be able to demonstrate an understanding of exposure control and the effects of exposure factors on image quality.

RAD 122 Radiographic Imaging II (1 3 0 2)
Prerequisites: RAD 112 and RAD 121 and RAD 161; Corequisites: RAD 131 and RAD 171
This course covers image receptor systems and processing principles. Topics include film, film storage, processing, intensifying screens, grids, and beam limitation. Upon completion, students should be able to demonstrate the principles of selection and usage of imaging accessories to produce quality images.

RAD 131 Radiographic Physics I (1 3 0 2)
Prerequisites: RAD 112 and RAD 121 and RAD 161; Corequisites: RAD 122 and RAD 171
This course introduces the fundamental principles of physics that underlie diagnostic X-ray production and radiography. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Upon completion, students should be able to demonstrate an understanding of basic principles of physics as they relate to the operation of radiographic equipment.

RAD 151 RAD Clinical Ed I (0 0 6 2)
Prerequisites: None; Corequisites: RAD 110 and RAD 111
This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 161 RAD Clinical Ed II (0 0 15 5)
Prerequisites: RAD 110 and RAD 111 and RAD 151; Corequisites: RAD 112 and RAD 121
This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 171 RAD Clinical Ed III (0 0 12 4)
Prerequisites: RAD 112 and RAD 121 and RAD 161; Corequisites: RAD 122 and RAD 131
This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.
RAD 211 RAD Procedures III (2 3 0 3)
Prerequisites: RAD 122; Corequisites: RAD 231 and RAD 241 and RAD 251
This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, pathology, and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.

RAD 231 Radiographic Physics II (1 3 0 2)
Prerequisites: RAD 171; Corequisites: RAD 211 and RAD 241 and RAD 251
This course continues the study of physics that underlie diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.

RAD 241 Radiation Protection (2 0 0 2)
Prerequisites: RAD 122 and RAD 131 and RAD 171; Corequisites: RAD 211 and RAD 231 and RAD 251
This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

RAD 245 Radiographic Analysis (2 3 0 3)
Prerequisites: RAD 251; Corequisites: RAD 261
This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.

RAD 251 RAD Clinical Ed IV (0 0 21 7)
Prerequisites: RAD 122 and RAD 131 and RAD 171; Corequisites: RAD 211 and RAD 231 and RAD 241
This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 261 RAD Clinical Ed V (0 0 21 7)
Prerequisites: RAD 251; Corequisites: RAD 245
This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RED 070 Essential Reading (3 2 0 4)
Prerequisites: None; Corequisites: None
This course is designed for those with limited reading skills. Emphasis is placed on basic word attack skills, vocabulary, transitional words, paragraph organization, basic comprehension skills, and learning strategies. Upon completion, students should be able to demonstrate competence in the skills required for RED 080.

RED 080 Intro to College Reading (3 2 0 4)
Prerequisites: RED 070 or ENG 075; Corequisites: None
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.

RED 090 Improved College Reading (3 2 0 4)
Prerequisites: RED 080 or ENG 085; Corequisites: None
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.
REL – RELIGION

REL 110 World Religions (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course introduces the world’s major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 211 Intro to Old Testament (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 212 Intro to New Testament (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

SCI – SCIENCE

SCI 110 Principles of Science (3 2 0 4)
Prerequisites: None; Corequisites: None
This course introduces basic principles of chemistry, physics, and biology. Emphasis is placed on chemical reactions, energy forms, and ecological studies. Upon completion, students should be able to demonstrate mastery of the scientific method of thought and a basic understanding of chemistry, physics, and biology.

SEL – SELECTED TOPICS

SEL 291 Selected Topics in Radiography (0 3 0 1)
Prerequisites: None; Corequisites: None
This course provides an opportunity to explore areas of current interest in Radiology disciplines. Emphasis is placed on subject matter appropriate to Radiology. Upon completion, the students should be able to demonstrate an understanding of Advanced Imaging Modalities and current trends in the profession.

SOC – SOCIOLOGY

SOC 210 Introduction to Sociology (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

SOC 213 Sociology of the Family (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

SOC 220 Social Problems (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
SOC 240 Social Psychology (3 0 0 3)
Prerequisites: ENG 090 and RED 090 or placement; Corequisites: None
This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

SON – MEDICAL SONOGRAPHY

Program enrollment required to take SON courses.

SON 110 Intro to Sonography (1 3 3 3)
Prerequisites: None; Corequisites: None
This course provides an introduction to medical sonography. Topics include applications, sonographic terminology, history, patient care, ethics, and basic skills. Upon completion, students should be able to define professionalism and sonographic applications and perform basic patient care skills and preliminary scanning techniques.

SON 111 Sonographic Physics (3 3 0 4)
Prerequisites: CVS 163 or SON 110; Corequisites: None
This course introduces ultrasound physical principles, bioeffects, and sonographic instrumentation. Topics include sound wave mechanics, transducers, sonographic equipment, Doppler physics, bioeffects, and safety. Upon completion, students should be able to demonstrate knowledge of sound wave mechanics, transducers, sonography equipment, the Doppler effect, bioeffects, and safety.

SON 120 SON Clinical Ed I (0 0 15 5)
Prerequisites: SON 110; Corequisites: None
This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

SON 121 SON Clinical Ed II (0 0 15 5)
Prerequisites: SON 120; Corequisites: None
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.

SON 130 Abdominal Sonography I (2 3 0 3)
Prerequisites: None; Corequisites: None
This course introduces abdominal and small parts sonography. Emphasis is placed on the sonographic anatomy of the abdomen and small parts with correlated laboratory exercises. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.

SON 131 Abdominal Sonography II (1 3 0 2)
Prerequisites: SON 130; Corequisites: None
This course covers abdominal and small parts pathology recognizable on sonograms. Emphasis is placed on abnormal sonograms of the abdomen and small parts with correlated sonographic cases. Upon completion, students should be able to recognize abnormal pathological processes in the abdomen and on small parts sonographic examinations.

SON 140 Gynecological Sonography (2 0 0 2)
Prerequisites: SON 110; Corequisites: None
This course is designed to relate gynecological anatomy and pathology to sonography. Emphasis is placed on gynecological relational anatomy, endovaginal anatomy, and gynecological pathology. Upon completion, students should be able to recognize normal and abnormal gynecological sonograms.

SON 220 SON Clinical Ed III (0 0 24 8)
Prerequisites: SON 121; Corequisites: None
This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

SON 221 SON Clinical Ed IV (0 0 24 8)
Prerequisites: SON 220; Corequisites: None
This course provides continued active participation off campus in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

SON 225 Case Studies (0 3 0 1)
Prerequisites: SON 110 or CVS 163; Corequisites: None
This course offers the opportunity to present interesting cases found during clinical education. Emphasis is placed on presentation methods which integrate patient history, laboratory results, and sonographic findings with reference to currentliter-
ature. Upon completion, students should be able to correlate information necessary for complete presentation of case studies.

SON 241 Obstetrical Sonography I (2 0 0 2)
Prerequisites: SON 110; Corequisites: None
This course covers normal obstetrical sonography techniques, the normal fetal environment, and abnormal first trimester pregnancy states. Topics include gestational dating, fetal anatomy, uterine environment, and first trimester complications. Upon completion, students should be able to produce gestational sonograms which document age, evaluate the uterine environment, and recognize first trimester complications.

SON 242 Obstetrical Sonography II (2 0 0 2)
Prerequisites: SON 241; Corequisites: None
This course covers second and third trimester obstetrical complications and fetal anomalies. Topics include abnormal fetal anatomy and physiology and complications in the uterine environment. Upon completion, students should be able to identify fetal anomalies, fetal distress states, and uterine pathologies.

SON 250 Vascular Sonography (1 3 0 2)
Prerequisites: SON 111; Corequisites: None
This course provides an in-depth study of the anatomy and pathology of the vascular system. Topics include peripheral arterial, peripheral venous, and cerebrovascular disease testing. Upon completion, students should be able to identify normal vascular anatomy and recognize pathology of the vascular system.

SON 271 Doppler Sonography Topics (1 3 0 2)
Prerequisites: None; Corequisites: None
This course covers Doppler principles and instrumentation. Topics include basic Doppler principles, CW Doppler, pulsed-wave Doppler, color Doppler, and power Doppler. Upon completion, students should be able to demonstrate knowledge of Doppler principles and instrumentation.

SON 273 Adv Vascular Sonography (2 0 0 3)
Prerequisites: SON 250; Corequisites: None
This course covers advanced scanning techniques and pathological states. Emphasis is placed on identifying, recognizing, and imaging abnormal peripheral arterial, peripheral venous, and cerebrovascular conditions. Upon completion, students should be able to identify and image abnormal vascular conditions.

SON 274 Neurosonology (2 0 0 2)
Prerequisites: SON 110; Corequisites: None
This course covers the applications of sonography in neurology. Topics include neurological problems as documented by sonography. Upon completion, students should be able to demonstrate the techniques for documenting neurological anatomy and pathological conditions as seen on sonograms.

SON 289 Sonographic Topics (2 0 0 2)
Prerequisites: SON 220; Corequisites: SON 221
This course provides an overview of sonographic topics in preparation for certification examinations. Emphasis is placed on registry preparation. Upon completion, students should be able to demonstrate a comprehensive knowledge of sonography and be prepared for the registry examinations.

SPA – SPANISH

SPA 110 Introduction to Spanish (2 0 0 2)
Prerequisites: None; Corequisites: None
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 0 3)
Prerequisites: None; Corequisites: None
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

SPA 120 Spanish for the Workplace (3 0 0 3)
Prerequisites: SPA 111; Corequisites: None
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language.
is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

**SPA 141 Culture and Civilization (3 0 0 3)**
*Prerequisites: None; Corequisites: 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 to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**SPA 211 Intermediate Spanish I (3 0 0 3)**
*Prerequisites: SPA 112; Corequisites: SPA 281*
This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**SPA 212 Intermediate Spanish II (3 0 0 3)**
*Prerequisites: SPA 211; Corequisites: SPA 282*
This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**SPA 281 Spanish Lab 3 (0 2 0 1)**
*Prerequisites: SPA 182; Corequisites: None*
This course provides an opportunity to enhance the 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 through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**SPA 282 Spanish Lab 4 (0 2 0 1)**
*Prerequisites: SPA 281; Corequisites: None*
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**TRF – TURFGRASS MANAGEMENT**

**TRF 110 Introduction to Turfgrass Cult & ID (3 2 0 4)**
*Prerequisites: None; Corequisites: None*
This course provides an in-depth study of turfgrass. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species through characteristics and reproductive stages and develop an establishment and maintenance plan for high quality turn areas.

**TRP – TRUCK DRIVER TRAINING**

**TRP 100 Truck Driver Training (6 18 0 12)**
*Prerequisites: None; Corequisites: None*
This course provides training in inspecting and driving tractor-trailers and assuming driver responsibilities on the road and at pickup and delivery points. Emphasis is placed on defensive driving, federal motor carrier safety regulations, trip planning, cargo handling, vehicle systems, hours of service, and accident prevention. Upon completion, students should be able to demonstrate the skills required for the commercial driver’s license and employment.

**WLD – WELDING**

**WLD 110 Cutting Processes (1 3 0 2)**
*Prerequisites: None; Corequisites: None*
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 (1 3 0 2)
Prerequisites: None; Corequisites: None
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 SMAW (Stick) Plate (2 9 0 5)
Prerequisites: None; Corequisites: None
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 (1 9 0 4)
Prerequisites: WLD 115; Corequisites: None
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 0 4)
Prerequisites: None; Corequisites: None
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 GTA W (TIG) Plate (2 6 0 4)
Prerequisites: None; Corequisites: None
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 & Specifications (2 2 0 3)
Prerequisites: None; Corequisites: None
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.
PHILOSOPHY

Johnston Community College is committed to a comprehensive continuing education program for all citizens in its service area. To fulfill this commitment, the College offers a variety of continuing education formed upon request when only three requirements are met:

1. Ten (or more) students must enroll.
2. A qualified instructor must be available.
3. A suitable location for the class must be acquired.

Through the Continuing Education program, citizens find opportunities to retrain and update themselves for today’s job market, develop leadership and civic responsibility, grow in basic knowledge, improve in home and community life, gain knowledge in general education, and develop creativity in the fine arts.

GENERAL INFORMATION

Continuing Education programs are offered where there is community need and interest. Some courses and services, because of great demand, are offered on a continuing basis. Other courses and programs may be initiated by request from groups, the industrial community, or other service organizations. The College, in keeping with its commitment to continuing education, cooperates with all groups whether public or private, industrial or service, whose goal is the development of continuing education for the citizens of Johnston County.

Continuing Education Units

Johnston Community College uses the Continuing Education Unit (CEU) as recognition and documentation for non-credit continuing education activities. The national guidelines for the use of the CEU are applied and emphasis is on the results of education and the assessment of those results. Continuing Education Units (CEU’s) are awarded for non-credit activities or programs meeting appropriate criteria. These CEU activities or programs may include:

- Technical and professional courses
- In-service training programs
- Courses for certificate or licensing requirements
- Occupational skill upgrading courses
- Liberal education programs
- Paraprofessional training programs
- Vocational training programs (either in-service or in preparation for job-entry positions)

Johnston Community College is responsible for establishing and maintaining a permanent record of all CEU’s awarded. The system of recording units for participants is in accordance with the current system of permanent records in use at the College. At the discretion of the College, a separate and parallel system is maintained. These records are available upon request by program participants, their employers, or certifying organizations. Information recorded in these permanent records includes:

- Name of individual student
- Title of course or program
- Starting and ending dates of activity
- Location of activity
- Format of activity
- Number of CEU’s awarded
- Student performance evaluation
- Name of instructor
- Cooperating sponsor

Any activity or program subject to CEU credit must be composed of the following criteria: participant, purpose, format content, duration, teaching staff, course prerequisites, and level of instruction. This essential information is maintained in condensed form in the permanent records of the College.

One CEU is awarded for each 10 contact hours of instruction included in a specified continuing education program activity. Therefore, a normal one-week short course usually approximates 30 contact hours of participation and would be awarded 3.0 CEU’s. A two-day program seldom involves more than 10 or 12 contact hours and would thus be awarded 1.0 or 1.2 CEU’s respectively.

Admission

Any person 18 years of age or older and not enrolled in public school may be admitted to a Continuing Education class. In extenuating circumstances, a person between the ages of 16 and 18 years of age may be admitted to a Continuing Education class.

The student must complete a Concurrent Enrollment form obtaining signatures of approval from appropriate school officials prior to enrollment.

Prior to the beginning of each semester, a course schedule is published and made available through the College Web site or to potential students upon request. Courses that begin between semesters are announced through local news media.
Registration

Because space may be limited for some classes, advanced registration is required for all Continuing Education courses with the exception of Basic Skills. Students must register at least FIVE CALENDAR DAYS prior to the class start date. Students may prepay registration fees in one of the following methods.

- Come by the Continuing Education office in the Elsee Building between 9:00 a.m. and 12:00 noon or between 1:00 p.m. and 6:00 p.m. on Tuesdays and Wednesdays and complete the registration form along with payment.
- Complete the Continuing Education Registration form found in the Open Door and mail to the attention of the Continuing Education Division along with appropriate registration fee(s) to the address listed at the top of the form.
- Fax registrations paid with a credit card, MasterCard or VISA, to the Attention: “Registration” at (919) 209-2189.
- Visit the website at www.johnstoncc.edu and select “Continuing Education.” A link for the registration form is at the top of the page. This is a PRINT only form that can be mailed or faxed.

Students attending the Cleveland Campus may prepay registration fees by one of the following methods:

- Call the Cleveland Campus at (919) 989-2128 for times available to register.
- Complete the Continuing Education Registration Form found in the Open Door and mail to the Continuing Education Division along with appropriate registration fee(s).

Bookstore Operations

Students are responsible for purchasing their own supplies and/or text material as needed prior to class. These items are to be paid separately from registration fees. Any textbooks and/or course materials may be purchased during these times. The Bookstore may be reached at (919) 209-2104 for inquiries about hours, books, or prices.

Attendance

Regular attendance and class participation are essential to effective teaching and learning. Adult students are expected to be regular and punctual in attendance. A minimum of 80 percent student attendance in each course is required to receive a certificate.

Fees

Occupational Extension courses offered through the Continuing Education Division carry registration fees as follows:

<table>
<thead>
<tr>
<th>Course length</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 hours</td>
<td>$50.00</td>
</tr>
<tr>
<td>11-30 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>31-100 hours</td>
<td>$60.00</td>
</tr>
<tr>
<td>Over 100 hours</td>
<td>$65.00</td>
</tr>
</tbody>
</table>

Technology fees for computer courses only are as follows:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 10</td>
<td>$1</td>
</tr>
<tr>
<td>11 – 20</td>
<td>$2</td>
</tr>
<tr>
<td>21 – 30</td>
<td>$3</td>
</tr>
<tr>
<td>31 – 40</td>
<td>$4</td>
</tr>
<tr>
<td>41 and over</td>
<td>$5</td>
</tr>
</tbody>
</table>

The registration fee for Community Service/Self-Supporting courses varies and is dependent upon the length and nature of each course.

Some courses (e.g., computer, CNA, BioWork) may require the payment of a nominal technology or lab fee. Students will be notified of the fee prior to registration.

Students who are fire department personnel, inmates, law enforcement officers, volunteer rescue squad personnel, citizens 65 years old or older, and the students participating in Basic Skills programs are exempt from the registration fee. Due to the nature of self-supporting courses, all students pay a registration fee.

Refund Policy

A student who officially withdraws (in writing) from a Continuing Education course prior to the first class meeting is eligible for a 100 percent refund upon request to the Continuing Education Division. A student may be eligible to receive a 75 percent refund of the registration fee if the student officially withdraws (in writing) from the course after the class begins, but prior to the 10 percent census date. A student would not be entitled to receive a refund if he/she withdraws after the 10 percent census date of the course.

Courses offered as self-supporting are not eligible for a refund as these programs are funded by registration fees collected. Students are eligible for a 100 percent refund if the classes are canceled by the College.
Course Repetition Policy

A special provision of the State General Assembly concerning course repetition became effective July 1, 1993. Students taking an occupational extension course more than TWICE within a FIVE-YEAR period shall pay their cost for the course at a rate based on current contact hour value.

Students shall be primarily responsible for monitoring course repetitions; however, the College shall review records and charge students full cost for courses taken more than twice. Senior citizens who are legal residents of North Carolina and who wish to enroll in an occupational extension course will not be required to pay for taking the course twice. Senior citizens who take an occupational extension course more than TWICE within a FIVE-YEAR period shall pay their cost for the course. Students may repeat occupational extension courses an unlimited number of times if the repetitions are required for certification, licensure, or recertification.

ADULT BASIC EDUCATION

Adult Basic Education offers persons 18 years of age or above the opportunity to develop essential reading, language, and math skills. The program is designed to help individuals better understand information and make decisions that affect their lives.

Adults with skills below high school level develop reading, writing, and mathematical skills in classes taught by experienced adult education teachers. The program is designed to meet the individual needs of those who enroll in each class.

There is no cost to the individual for taking Adult Basic Education. All books and materials are supplied free of charge.

Individual and small group instruction is offered in reading, writing, math, and life skills.

The Adult Basic Education program operates year round. Enrollment is open at all times for new students to enter. Classes are scheduled during day and evening hours in convenient locations throughout Johnston County.

Students are encouraged to complete Adult Basic Education and then enter the Adult High School program or General Educational Development (GED) to earn an Adult High School Diploma or equivalency certificate.

ENGLISH AS A SECOND LANGUAGE

English as a Second Language is a program that provides instructional opportunities for adults with limited English proficiency. This program assists students with acquiring skills in listening, speaking, reading, writing, and comprehension of the English language. The program is open entry/open exit and provides instruction in a lab setting.

Classes are located throughout Johnston County during day and evening hours. There is no cost to the individual for taking English as a Second Language. All books and materials are supplied free of charge.

COMPENSATORY EDUCATION

Compensatory Education is a program that provides instructional opportunities for persons with mental retardation or who may have suffered traumatic brain injury. The purpose of the program is to compensate adults with development disabilities for the lack of, or inadequate, education received earlier. The focus of the program is to help individuals become as independent as possible through acquiring basic academic and life skills needed to function successfully in daily living.

There is no cost to the individual for taking classes. All books and materials are provided free of charge.

ADULT HIGH SCHOOL

The Adult High School Diploma program, cosponsored by Johnston Community College and the Johnston County Board of Education, is designed to meet the needs of those adults who have not completed high school.

The student must complete 28 units of academic credit; however, credit is also given for courses that the student completed in the public school. Transcripts are evaluated to determine the course needs of each student.

Adult High School students who complete the 28 units of course work must also attain a passing score on the North Carolina Competency Test.

Upon successful completion of the program, students are awarded the Johnston Community College Adult High School Diploma. This achievement is generally recognized as meeting educational requirements for employment or entrance into programs of higher education.

GENERAL EDUCATIONAL DEVELOPMENT

The General Educational Development (GED) program provides adults who have not completed high school with an opportunity to demonstrate the attainment of developed abilities normally acquired through completion of a high school program of study.

Classes are located throughout Johnston County during day and evening hours.

Successful completion of the GED test is recognized by award of the GED high school equivalency diploma by the North Carolina Community College System. This achievement is generally recognized as meeting educational requirements for employment or entrance into programs of higher education.

There is no cost to the individual for preparation classes. There is a fee of $7.50 to take the Official GED.
IT ACADEMY CERTIFICATION
TRAINING PROGRAMS

Information technology training is a tool to get better job security. With the right certifications, it is possible to get a good paying job in the IT industry and with the right motivation, that job can turn into a career.

Course work for each training program consists of class lectures and hands-on experience with server and PC technology. Graduates should find employment as PC technicians, systems engineers, network administrators, and network technicians.

Continuing Education
Credit CEU’s:

A+ Certification Training (2 track program)
   Hardware Installation/Maintenance 68
   Software Installation/Maintenance 68
Network+ Certification Training (1 track program) 68
Security+ Certification Training (1 track program) 68
Server+ Certification Training (1 track program) 68

MCSA/MCSE Training (7 track program)
   MCSA Tracks
      70-210 Windows 2000 Professional 68
      70-215 Windows 2000 Server 68
      70-216 Windows 2000 Network Infrastructure 68
      70-218 Managing a MS Windows 2000 Network 68
   MSCE Tracks
      70-217 Windows 2000 Active Directory 68
      70-219 Windows 2000 Active Directory Design 68
      70-220 Windows 2000 Active Directory 68
      Network Infrastructure Design

PUBLIC SERVICE PROGRAMS

Law Enforcement Training

Law Enforcement Training is provided at the request of local law enforcement agencies. Courses are especially designed as in-service and pre-service education for those engaged in law enforcement activities. Workshops and courses are offered in many areas such as the following:

   Constitutional Law  Fingerprinting
   Criminal Law       Firearms
   Defensive Tactics   Motor Vehicle Laws
   Drugs and Narcotics Radar Training

Fire Service Training

Fire Service Training is designed to provide firefighters the opportunity to gain technical information and skill in modern fire fighting through a variety of learning experiences and practical problems. The College has a modern Fire/Rescue Training Ground on campus used extensively for local fire/rescue classes.

Classes are often taken directly to the firefighters through training sessions held in local departments and training fields in the community. Among the courses are the following:

   Arson Detection     Hose Practice
   Emergency Vehicle Operation Introduction to Firefighting
   Fire Apparatus Practices  L.P. Gas
   Fire Fighting Procedures  Ladder Practices
   Fire Officer Training  Portable Fire Extinguishers
   Fire Stream Practices  Protective Breathing
   First Responder     Equipment
   Flammable Liquids     Rescue Practices
   Forcible Entry       Rope Practices
   Hazardous Materials  Salvage and Overhaul Practices

Emergency Medical Services (EMS) Training and Education

The EMS Education program offers courses designed to improve emergency health care to the public and serves as the American Heart Association Community Training Center. The program offers courses to all health care professionals current with the latest technology including:

   • Advanced Cardiac Life Support (ACLS) – Provider and Instructor
   • Pediatric Advanced Life Support (PALS) – Provider and Instructor
   • Basic Cardiac Life Support (BCLS) – Provider and Instructor
   • Pre-Hospital Trauma Life Support – Provider and Instructor Levels

Certification courses including:

   • Emergency Medical Technician Basic, Intermediate, & Paramedic
   • Continuing Education courses consistent with NC State requirements for providers in Johnston County

Nursing Assistant Training

Nursing Assistant Training is provided for individuals seeking employment in hospitals, doctor’s offices, nursing homes, and home health care. This 12-week program meets the state regulations for listing on the North Carolina Nurse Aide Registry. Registry is required for employment in N.C. as a Certified Nurse Aide (CNA). This course entails classroom, laboratory, and clinical experiences.

Components of the Nursing Assistant program include the following:
• **Nurse Aide I:** A 153-hour course required for initial listing on the North Carolina Nurse Aide Registry. A high school diploma, GED, or eighth grade reading equivalency is required for admission into this course.
• **Nurse Aide Refresher:** This 16-hour refresher, with competency evaluation of knowledge and skills, meets the state regulations for relisting on the North Carolina Nurse Aide Registry when initial listing has expired and one has not gone 24 months without working as a nurse aide under an RN.

**COMMUNITY SERVICE PROGRAMS**

Johnston Community College promotes a number of Community Service/Self-Supporting courses providing quality avocational programs that are accessible and that provide comprehensive services for the community-at-large. Community Service/Self-Supporting courses are designed to meet the cultural, economic, and civic improvement of the community.

Courses are offered at the college campus and surrounding sites throughout the county. Courses and workshops are offered in various subject areas such as the following:

- Motorcycle Education
- Adult Piano Instruction
- Quilting Classes
- Sewing Classes
- Fine Art Classes
- Craft Classes
- Sign Language

**INDUSTRY SERVICE PROGRAMS**

Johnston Community College provides economical, customized training to meet the needs of local businesses, industries, and organizations. Courses may be offered in the workplace or on campus. Classes are designed to fit organizational or individual needs of upgrading skills in the ever-changing workplace.

Industries may take advantage of several programs including:

- **Occupational Extension Courses** specially designed to provide training that upgrades skills or re trains individuals for specific skill areas. Some of these classes include computer training, blueprint reading, forklift safety, Spanish in the workplace, and AutoCAD.
- **BioWork Process Technician Training Program**
- **Manufacturing Certificate Program**
- **In-Plant Training** is used when duplicating a business or industry work environment at the College is not feasible. The College staff provides training course development services to the industry.
- **Focused Industrial Training** provides more training in specialized areas of critical industrial skills without the usual constraints, such as minimum class enrollment.
- **New and Expanding Industry Training** promotes the expansion of existing industries and assists in the training of employees for new industries being established in the county. Upon request from a new or expanding industry, the College will provide a training program individualized to meet the firm’s specific needs. Approved training programs for new and expanding industries are funded by the State of North Carolina. Basic skills, literacy, and English as a Second Language courses may also be coordinated and customized for business and industry.

**Human Resources Development**

The Human Resources Development (HRD) program provides skill assessment services, employability skills training, and career development counseling to underemployed and unemployed adults. The program offers six courses that address the following core components:

- assessment of an individual’s assets and limitations
- development of a positive self-concept
- development of employability skills
- development of problem-solving skills
- awareness of the impact of information technology in the workplace

The HRD program is an Occupational Extension program which carries the same registration fees as Occupational Extension courses, however, these HRD courses may be offered at no cost provided the following criteria is met:

- currently unemployed
- received notice pending layoff
- eligible for Federal Earned Income Tax Credit
- working and earn wages at or below 200 percent of the federal poverty guidelines

**Accelerated Job Training**

Four certificate programs are being offered to provide accelerated training in the areas of Administrative Applications, Biowork, Residential Construction, and Industrial Maintenance. Each of these programs range from 5 - 16 weeks to provide a quick turnaround into the workforce. The Test for Adult Basic Education (TABE) is a prerequisite to register for the classes. A ninth grade level is required for each of the areas with the exception of the Residential Construction program which requires a seventh grade level.

Each student will be provided with a number of Human Resource Development courses along with the technical skills. Courses in the HRD component will include: job preparation, job seeking skills, job keeping skills, communication skills, problem solving strategies, decision making skills, conflict management skills, and an introduction to computers in all areas except the Administrative Applications Assistant in which introduction to computers is part of the curriculum.
The Accelerated Administrative Applications (AAA) program includes 210 hours of instruction in the areas of introduction to computers, keyboarding, word processing, Excel, Access PowerPoint, QuickBooks, and 30 hours total in the areas of customer service, telephone techniques, and office machinery.

The Biowork Process Technician program provides a basic skills knowledge needed to obtain employment in the biotechnical manufacturing industry. The HRD component, added to the 116 hour program will enhance the communication and employability skills of the participants.

The Residential Construction program includes 120 hours of instruction in the areas of site preparation and grading, framing, roofing, electrical wiring, residential plumbing/HVAC, masonry/concrete, and landscape and lawn care.

The Industrial Maintenance program includes 240 hours of instruction in the areas of AC/DC/electronics, pneumatics, hydraulics, process control programmable logic control, and motors and controls.

Upon successful completion of the courses and exams associated with each program, the students will be awarded a certificate.

SMALL BUSINESS ASSISTANCE CENTER

The Small Business Assistance Center at Johnston Community College is one of 58 centers throughout North Carolina that supports the development of new businesses and the growth of existing businesses by being a community based provider of training, counseling, and resource information.

The Center is located in the Elsee Building on the campus in of the College. The Center has books, videos, tapes, handouts, and periodicals for the person interested in small business topics. There are computers available for writing and researching business plans and proposals. The director of the Center is ready to assist by offering confidential counseling sessions. No question is too simple or too complicated. As a member of the Small Business Center Network, the director has many resources available for referrals in assisting the entrepreneur with specialized problems. There is no charge for the counseling, referrals, and the use of the resource center.

Training is offered on business related topics in the form of seminars, workshops, and short courses. Most of the offerings are at no charge. The Center works in partnership with the chambers of commerce in Johnston County to bring seminars to all areas of the county on a regular basis. The popular “lunch and learn” series has afforded many small business persons the opportunity to hear about timely topics without expending a lot of money. The Center participates in bringing the Small Business Expo to the John Tart Arts & Learning Center each May. The area’s local businesses have a chance to network and exhibit their products and services to the community.

The Center is working in partnership with the chambers to deliver the Johnston County Leadership Program on an annual basis. The class meets monthly from September through May of each year and includes a retreat and leadership skill classes as well as informational sessions on the county. It is designed to identify opportunities for exerting leadership by the participants in their communities.

Each year the Small Business Assistance Center offers a small business development series that is free of charge to participants and provides instruction in the following topics:

- How to Start a Business
- How to Write a Business Plan
- Financing a Business
- Marketing and Advertising Your Business
- Record Keeping and Taxes for the Small Business

Information on each of the topics is available in the resource center and is accessible from the College’s Web site at www.johnstoncc.edu/ConEd/sbc/sbc.html or by calling the director at (919) 209-2015.

PROFESSIONAL IN-SERVICE PROGRAMS

Professional In-Service programs include courses in business education and teacher education. Courses are offered at the professional and sub-professional levels.

Business/Computer Education

Courses in Business Education are planned especially for adults who desire business education for personal or job-related purposes. Among the courses provided by the College are the following:

- Computer Introduction
- Mastercam
- MS Office Applications
- AutoCAD
- Computer Programming
- Word Processing
- Web Design
- Internet Introduction
- QuickBooks
- Visio
- Quicken
- Project Management
- Publisher
- Accounting
- Intermediate Applications
- Turbo Tax
- Advanced Applications
**Teacher In-Service Education**

Teachers are increasingly seeking opportunities for professional growth through in-service education. The College cooperates with local agencies in providing seminars, workshops, and courses for certificate renewal and professional growth. Technology training is currently a major requirement for certificate renewal. A wide variety of technology courses, including online courses, are offered each semester.

**Teacher Assistant Certificate Program**

In cooperation with the Johnston County School system, the College offers a certificate program for teacher assistants seeking professional growth. This program is designed for currently employed teacher assistants working in Johnston County Public Schools. A three-plan option is offered to meet the various staff development needs.

**Plan A** consists of 198 contact hours in non-credit continuing education courses.

**Plan B** consists of 18 semester credit hours in courses chosen from the core curriculum in either the Associate in Arts or Associate in Science degree programs.

**Plan C** requires 13 semester credit hours in the Early Childhood Certificate program.

**DISTANCE LEARNING PROGRAM**

The Continuing Education Division at Johnston Community College offers a distance learning program designed to improve employment opportunities and job related skills from your home or office. A complete listing of Internet courses is available on the College Web site. The following is an example of what is available:

- PC Troubleshooting
- QuickBooks
- Excel
- Access
- Basic Web Design
- Creating Web Graphics
- FrontPage
- WordPerfect
- JavaScript
- Photoshop Basics
- 101 Tips & Tricks for the IMAC
- Advanced Web Designer
- Windows XP

**Computer Certificate Programs**

The following certificate programs are offered:
- Office Computer Operations Specialist
- Digital Design
- QuickBooks Accounting
- Webmaster
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# ADMINISTRATION

**DONALD L. REICHRAD**  
*President, B.S.Ed., M.A., Indiana University of Pennsylvania; Ed.D., College of William and Mary.*

**PAMELA J. HARRELL**  
*Interim Dean of Student Services. B.A., University of North Carolina at Chapel Hill; M.A., East Carolina University; Ed.D., North Carolina State University.*

**HERMAN KIGHT**  
*Dean of Administrative, Fiscal and Personnel Services. B.S., M.B.A., East Carolina University.*

**KAY LANIER**  
*Dean of Curriculum Programs. B.S.N., East Carolina University; M.S., North Carolina State University.*

**TALBERT MYERS**  
*Dean of Continuing Education. B.S., M.S., North Carolina Central University. Additional study, Appalachian State University, North Carolina State University*

**ALMOND R. WARRICK**  
*Dean of Marketing, Foundation and Institutional Advancement. A.S., Mount Olive Junior College; B.S., Atlantic Christian College; M.A., East Carolina University. Additional study, Appalachian State University, North Carolina State University.*

**J. JEANNE WHISNANT**  
*Dean of Information Technology. A.A.S., A.A., Caldwell Community College and Technical Institute; B.S., M.A., Appalachian State University; M.L.S., North Carolina Central University.*

# FULL-TIME FACULTY AND STAFF

**SUSAN M. ADAMS**  

**LARRY T. ANDERSON**  
*Truck Driver Training.*

**ART ANDREWS**  
*Controller. B.S., Appalachian State University. Additional study, Appalachian State University. Certified Public Accountant.*

**SUSAN AUSTIN**  
*Developmental Studies. B.S., M.A., East Carolina University.*

**DEBORAH H. AYCOCK**  
*Nursing Assistant Program Coordinator. A.A.S., A.A.S, Johnston Community College; B.S.N., Barton College.*

**NANCY R. BAILEY**  

**BARBARA A. BAKER**  
*Housekeeping. A.A.S., Johnston Community College.*

**ELIZABETH D. BAKER**  
*Program Coordinator, Student Support Services. B.A., Sweet Briar College.*

**LINDA BARBOUR**  
*Associate Degree Nursing. Diploma, Wilson Memorial Hospital School of Nursing; B.S.N., University of North Carolina at Chapel Hill.*

**TAMMY BARBOUR**  
*Developmental Studies. B.S., Campbell University.*

**TINA BARBOUR**  
*Housekeeping.*
LYNN BARKER  
Biology. B.S., B.A., University of North Carolina at Wilmington; M.S., North Carolina State University.

CLAUDE E. BARNES  
Housekeeping.

APRIL MINETTE BASS  
Secretary, Library. A.A.S., Johnston Community College.

BEN BEASLEY  
Software Manager/Help Desk Technician. A.A.S., Johnston Community College.

STEPHANIE C. BEASLEY  
Radiography. A.A.S., Johnston Community College; B.S., University of St. Francis. RT (ARRT) Registered.

PHILIP M. BEAUMONT  
Horticulture. A.A.S., Sandhills Community College. 
Additional study, North Carolina State University, Lenoir Community College, Western Carolina University. N.C. Pesticide Applicator's License. N.C. Certified Plantsman.

DEBORAH C. BOBBITT  
Associate Degree Nursing. B.S.N., Atlantic Christian College; M.S.N., East Carolina University.

TONEY M. BOND  
Director, Student Support Services. B.A., Saint Leo College; M.S.A., Central Michigan University.

ELLEN BOYD  
Developmental Studies. B.S., Campbell University.

W. CRAIG BOYD  
Network Server Administrator. A.A.S., Pitt Community College; B.S.B.E., East Carolina University.

BETTY T. BRASWELL  
Secretary, Dean of Curriculum Programs. A.A.S., Johnston Community College.

SANDRA W. BRINCHEK  
Purchasing Technician. A.A.S., Johnston Community College.

GRANGER L. BROCK  
Maintenance Supervisor.

DEREK BROWN  
IT Academy. A.A.S., Johnston Community College. 
MCSA/MCSE Certification; A+, Network+, Server+, Security+ Certification.

GWENDOLYN BROWN  
Financial Aid Secretary/Receptionist. A.A.S., Johnston Community College.

FLORA STREET BRUNDAGE  
Counselor. B.S., North Carolina A&T State University; M.A., New York University. Additional study, Cornell University.

SHERMAN BRYANT  

GRACIELLA BRYMAN  
Basic Skills. A.A.S., Kingsborough Community College. 
Additional study, Johnston Community College.

DONNELL BULLOCK  

JOHN W. BYRD  
Program Head, Graphic Arts/Fine Arts. A.A.S., Johnston Community College; B.F.A., Barton College; M.F.A., East Carolina University.

GAILYA CAGLE  
Chief GED Examiner and Assessment Coordinator. B.A., University of North Carolina at Asheville. Additional study, Appalachian State University.

JOY T. CALLAHAN  
Department Chair, Business & Industry/Director, Johnston County Workforce Development Center. A.A., Peace College; B.S., M.Ed., East Carolina University.

SUE CANADAY  

BONNIE J. CAPPS  
Receptionist.

STEPHANIE CAPPS  

BECKY CARROLL  

KIM A. CARROLL  
Secretary, Medical Imaging & Biology. A.A.S., Johnston Community College.

BARBARA CARTER  
Radiography. A.A.S., Johnston Community College; B.S., Mount Olive College. RT (ARRT) Registered.
FRANK CASANOVA  
*Business.* B.A., Methodist College; M.A., Webster University.

ANNE W. CASTRO  
*Director of Human Resources.* A.A.S., Mayland Community College; B.S., Milligan College.

A. CHRISTOPHER CHAPPELL JR.  
*Truck Driver Training.* North Carolina Truck Driver Training School. Additional study, North Carolina State University, Elon College, East Carolina University.

REBECCA J. CLARY  
*Basic Skills Records Technician.* A.A.S., Johnston Community College.

WENDY A. COLLINS  
*Radiography.* A.A.S., Johnston Community College; B.S., North Carolina State University. RT (ARRT) Registered.

EDWARD SCOTT CREECH  
*Accounting/Bioprocess.* B.B.A., M.B.A., Campbell University. Additional study, North Carolina State University.

SUSAN CRISP  
*Director, EMS Education.* B.S., Western Carolina University. Additional study, North Carolina State University.

HOPE DALE  
*Financial Aid Specialist.* A.A.S., Johnston Community College.

SHERILL DALE  
*Maintenance.* Johnston Community College.

DEE DEE DAUGHTRY  
*Chair, Business.* A.A.S., Wayne Community College; B.S., Mount Olive College; M.B.A., Campbell University. Additional study, Nova Southeastern University.

PAULA DAWSON  
*Huskins.* A.A.S., Johnston Community College.

THOMAS DEAN  

LOUISE DEATON  
*Chair, Arts & Sciences.* B.A., University of North Carolina at Wilmington, M.Ed., Campbell University.

ANGIE W. DEVEREAUX  

CYNTHIA DIXON  

ROBERT DIXON  
*Maintenance.*

THOMAS D. DUNCAN  
*Network Technician.* Johnston Community College.

MONICA DUNNEHOO  
*Medical Office Administration.* B.A., North Carolina State University; M.B.A., Rollins College.

DONALD DURHAM  
*Grounds.*

PAMELA J. EARP  
*Department Chair, Basic Skills.* A.A.S., Johnston Community College; B.S., Barton College. Additional study, North Carolina State University.

DORIS EDWARDS  
*Continuing Education Records Technician.* Johnston Community College.

RONNIE B. EDWARDS  
*Truck Driver Training.*

EVA EFIRD  
*Psychology.* B.S., University of South Carolina; M.A., East Carolina University.

ADEMOLA EJIRE  
*Biology.* B.S., Saint Augustine’s College; M.S., Ph.D., North Carolina State University.

DEBBIE ELAM  
*Executive Director, JCC Country Music Showcase.* B.M., Meredith College.

BENNIE LLOYD ELLIS  
*Housekeeping.*

KAREN ELLIS  
*Basic Skills.* B.S., East Carolina University.

RHONDA B. EVANS  

KELLY FIELDS  
*Health, Physical Education.* B.S., East Carolina University; M.S., Florida State University.

LIN FRYE  
*Horticulture and Arboretum Director.* B.S., College of Charleston; M.S., University of North Carolina at Chapel Hill.
TIMOTHY GALLOWAY  
*Cosmetology.* Diploma, Brunswick Community College. Licensed Cosmetologist, North Carolina State Board of Cosmetic Art Teacher’s License.

KIMBERLY WIGGS GAMLIN  
*Director, Community Services and Self-Supporting Programs.* A.A., Wayne Community College; B.A., University of North Carolina at Wilmington; M.Ed., North Carolina State University. Additional study, East Carolina University.

BEVERLY M. GIBSON  
*Secretary, Dean of Student Services.* A.A.S., Johnston Community College.

GORDON GODFREY  

CATHY GODWIN  
*Director, Sonography Programs.* A.A.S., Johnston Community College; B.S., Mount Olive College. ARRT Registered, RDMS Registered, RVT Registered, RDCS Registered. Additional study, North Carolina State University.

JASON GODWIN  
*Director, Basic Law Enforcement Training.* B.S., East Carolina University.

MATILDA GODWIN  
*Housekeeping.*

GWENDOLYN CAPP GREEN  
*Assistant Controller.* A.A., Peace College; B.S., Mount Olive College.

WILLIAM (BILL) GREER  
*Director, Prison Programs & Basic Skills Instructor.* B.S.S., Campbell University.

ANTHONY J. HARRIS  
*Director, Nuclear Medicine Technology.* A.A.S., B.S., Ferris State College. NMTCB certified.

DEWANA J. HARTLEY  
*Computer Programming.* A.A.S., Johnston Community College; MCSA/MCSE Certification.

DEENA H. HENRY  
*Assistant Registrar.* A.A.S., Johnston Community College; B.S.B.E., East Carolina University.

NANCY Y. HERRERA  
*Coordinator, Huskins Program.* B.A., Antioch College; M.A., Ph.D., California School of Professional Psychology at Los Angeles.

TERRI HILL  
*Secretary, Arts and Sciences Faculty.* A.A.S., Johnston Community College.

DANNY E. HINNANT  

TERRI S. HOLSTON  
*Distance Learning Coordinator.* B.A., University of North Carolina at Chapel Hill; M.L.I.S., University of North Carolina at Greensboro. Additional study, North Carolina State University.

CARSON HOOD  
*Housekeeping.* A.A.S., Johnston Community College.

RANDY HOPPER  
*Grounds Manager.* A.A.S., Wayne Community College.

DAVID HORVATH  

LASHAY HOUSE  
*Admissions Coordinator.* A.A.S., Johnston Community College.

JACKIE HOUSER  
*Paralegal.* A.A.S., Wayne Community College; A.A.S., Johnston Community College; B.S., Mount Olive College. Additional study, East Carolina University. Certified Legal Assistant.

THOMAS R. HOWERTON, JR.  
*English.* B.A., North Carolina State University; M.A., Ph.D., University of North Carolina at Chapel Hill.

EDWARD F. HOY  
*Basic Skills.* B.A., Saint Leo University. Additional study, University of Virginia.

MILTON S. HUDSON JR.  
*Air Conditioning, Heating and Refrigeration.* A.A.S., Diploma, Fayetteville Community College. H-3 Class 1 State License, North Carolina Board of Plumbing, Heating and Fire Sprinkler Contractors; State License, North Carolina Board of Refrigeration Examiners.

TRACI NUNN HUDSON  
*Cashier.* A.A.S., Johnston Community College.

FONDA HUGHES  
*Publication Technician.* A.A.S., Johnston Community College.
ANN JACKSON  
Radiography. A.A.S., Johnston Community College; B.S., Mount Olive College. RT (ARRT) Registered.

JAMES W. JACKSON  
Business. B.S.B.S., M.B.A., Campbell University.

SUE JACKSON  

TONYA P. JACKSON  
Payroll Officer. B.S., Mount Olive College.

SHELIA JEFFERSON  
Developmental Studies. A.A.S., Johnston Community College; B.S., Mount Olive College. Additional study, East Carolina University.

DAVID SCOTT JERNIGAN  
Groundskeeper.

BILL JOHNSON  
Basic Skills. A.B., Pfeiffer College. Additional study, North Carolina State University.

CINDY M. JOHNSON  

DON H. JOHNSON  
Department Chair, Health & Emergency Services/Director, Small Business Assistance Center. B.A., North Carolina State University; M.B.A., Campbell University.

JOHN W. JOHNSON  
Food Service, JCPU.

MATTHEW JOHNSON  

SHERYL JOHNSON  
Developmental Studies. B.S., Baptist Bible College.

CAROLA E. JONES  
Huskins. B.F.A., University of North Carolina at Chapel Hill. Additional study, East Carolina University, North Carolina State University.

DAVID S. JONES  
Receiving Technician. A.A.S., Johnston Community College.

GEORGE HAROLD JONES  
Maintenance.

GREG JONES  

PAUL R. JUMP, JR.  
Program Head, Truck Driver Training.

A. J. KAY  

MAXTON KIRBY  
Electrical/Electronics Technology. A.A.S., Johnston Community College.

GLORIA JEAN KUTSCHEID  

TAMARA LAMASSA  

JUDY LANGDON  
Facilities Coordinator, Cleveland Campus. A.A.S., Johnston Community College.

ANNETTE LANGSTON  

APRIL LEE  
Secretary, Continuing Education. A.A.S., Johnston Community College.

BARBARA J. LEE  
Associate Degree Nursing. B.S.N., Wesleyan College; M.Ed., North Carolina State University.

JUDY S. LEE  
Secretary, Dean of Administrative, Fiscal & Personnel Services. A.A.S., Johnston Community College.

THERESA C. LEE  
Admissions Coordinator. A.A.S., Johnston Community College.

LINDA LEVY  
Basic Skills. B.S., San Francisco State University. Additional study, Appalachian State University.

DAWNNA LEWIS  
Huskins. A.A.S., Johnston Community College.

LANNETTA R. LOCKHART  
Secretary, Applied/Industrial Technology. A.A.S., Johnston Community College; B.B.A., Campbell University.
THOMAS C. MARTIN  

MICHAEL MASSEY  
Maintenance.

JACK MATTHEWS  
Truck Driver Training.

WILLIAM M. MAY  
Truck Driver Training.

KENNETH (VIC) McCORMICK JR.  
Network Technician. B.S., North Carolina Central University.

THADDEUS D. McCRAE  
Housekeeping.

CINDY McLAMB  
Bookkeeper, College Foundation. A.A.S., Johnston Community College.

JOAN S. McLENDON  
Director, Admissions and Counseling. B.S., University of North Carolina at Greensboro; M.S.Ed., Youngstown State University.

DELLA McMILLIAN  
Secretary, Truck Driver Training. A.A.S., Johnston Community College.

RHONDA McRAE  
Housekeeping.

SANDRA B. MILLARD  
Continuing Education Registration Specialist/Cashier. Certificate, Johnston Community College.

GORDAN MILLER  
Truck Driver Training. B.S., University of Pittsburg.

JUDY C. MILLER  
Assistant Director, College Foundation. Johnston Community College; Diploma, Sheffield School of Interior Design.

CLIFF MITCHELL  
History. B.S., University of North Carolina at Chapel Hill; M.B.A., Appalachian State University; M.A., University of North Carolina at Greensboro.

KEN H. MITCHELL JR.  
Director, Paul A. Johnston Auditorium. Certificate, New York University; B.A., University of North Carolina at Wilmington; M.S.A, Central Michigan University.

MARK MITCHELL  
Psychology/Huskins. B.A., M.A., University of North Carolina at Chapel Hill.

ANGELA MOORE  
Senior Information Technology Technician. A.A.S., Johnston Community College.

GEORGE CLIFTON MOORE  

ANNE B. MORGAN  
Early Childhood. B.S., University of Idaho.

TRAVIS MULHAUSER  
English. B.S., University of Central Michigan; M.F.A., Columbus College; M.S., Troy State University.

RANDY S. MYATT  
Auditorium Technician.

CRYSTAL NETTER  
Computer Lab Coordinator. A.A.S., Johnston Community College. Additional study, East Carolina University.

DAVID OLIVER  
Computer Networking Technology. B.S., Campbell University.

DALE O’NEILL  
Associate Dean of Institutional Effectiveness. B.A., Atlantic Christian College; M.A., North Carolina State University.

LISA ORMOND  
Preschool Teacher. A.A.S., Johnston Community College. Additional study, University of North Carolina at Greensboro.

ALLISON PACE  
Secretary, Student Services. Johnston Community College.

JACKIE PAGE  
Records Technician. A.A.S., Johnston Community College.

HEATHER PAICH  
BioWork. B.S., University of Notre Dame.

COREY PARKER  
Computer Technician. A.A.S., Johnston Community College; B.S., East Carolina University.
JENNIFER B. PARKER  
Accounts Receivable. B.A., Meredith College.

DEBORAH PARNELL  
Associate Degree Nursing. A.D.N., Johnston Community College; B.S.N., University of North Carolina at Chapel Hill; M.S.N., Old Dominion University.

TERRY PARNELL  

PAULA PARRISH  
Director of Continuing Education Computer Applications and Distance Learning. A.A.S., Johnston Community College.

MAJOR DOUGLAS PATE  
Purchasing and Equipment Coordinator. A.A.S., Johnston Community College.

D. BRENTA PEEDEIN  

ARIS PENNINGTON  

ANTHONY A. PENNY  
IT Academy. A.A.S., Johnston Community College; MCSA/MCSE Certification; A+, Network+, Server+, Security+ Certification.

STEVEN PENNY  
Medical Sonography. A.A.S., Johnston Community College; B.S. Mount Olive College. ARRT Registered, RDMS Registered.

CHRISTINA PERKINSON  
English. B.A., Lafayette College; M.A., University of North Carolina at Wilmington.

BILLY PHILLIPS  

JEFFREY PICKERING  
Colleague/UNIX System Administrator. A.A.S., Moraine Valley Community College.

SONJA R. PIERCE  
Secretary, Dean of Continuing Education. A.A.S., Johnston Community College.

GEANNE POPE  
Bookstore Manager. B.S., Fayetteville State University.

EDITH PORTER  
Huskins. A.A.S., Johnston Community College.

PRISCILLA PREVETTE  
Director, Early Childhood Education. B.S., M.A.E., East Carolina University.

KAREN J. PRICE  
Registrar. A.A.S., Wayne Community College; B.H.S., Campbell University. Additional study, Barton College.

LINDA RAMSEY  
Director, Library Services. B.S., M.L.S., East Carolina University.

ED RANSOPHER  
Director of Occupational Extension. B.S. Millikin University; M.S.Ed., Indiana State University.

WILLIAM C. (CHRIS) RAYNOR  
Director of Fire Service Training. Fire Fighter I & II Certification, Johnston Community College; Instructor Certification, Wake Technical Community College; SCBA Certification, Gaston College. Additional study, Wilson Community College.

DEANNE REAVES  
Secretary, Business Faculty. A.A.S., Johnston Community College.

JANE KIRKLEN ROBBINS  
Public Speaking Communications. B.A., Texas Tech University; M.A., California State University, Los Angeles.

CHRISTINE B. ROBERTS  
Librarian. B.A., University of South Carolina; M.L.S., North Carolina Central University.

JERRY ROSE  
Office Systems Technology. B.S., East Carolina University. Additional study, North Carolina State University, Johnston Community College.

WILLIAM R. SANDERS III  
Assistant UNIX Administrator. B.S., North Carolina State University.

JAMES SASSER  
Director, Howell Woods Environmental Center. B.S., North Carolina State University.

MARTHA B. SAUNDERS  
Secretary, Business Office. A.A.S., Johnston Community College.
DONNA SHUMATE  
Chair, Applied/Industrial Technology. A.A.S., Community College of the Air Force; B.S., Southern Illinois University; M.Ed., Ed.D., North Carolina State University.

PEGGY SKINNER  

ERIN SPEER SMITH  
Early Childhood Coordinator/Instructor. B.S., Radford University. Additional study, Pacific Oaks College.

LINDA D. SMITH  
Director of Nursing Education/Department Chair, Health Care Technology. B.S.N., Boston College; M.S.N., Armstrong Atlantic State University.

NATALIE C. SMITH  
Radiography. A.A.S., Johnston Community College; B.S., Mount Olive College. RT (ARRT) Registered.

SHEILA W. SMITH  
Chair, Medical Imaging Department/Director, Radiography. B.S., North Carolina Wesleyan College; M.Ed., North Carolina State University. RT (ARRT) Registered.

TOMMY ROSE SMITH  
Truck Driver Training.

JOEL SPEARS  
Computer Science. B.S., M.S., University of Tennessee at Knoxville. Additional study, North Carolina State University.

J. MICHAEL SPRAGINS  
Paralegal. B.S., Wake Forest University; J.D., Drake University.

VAN STALEY  
Truck Driver Training.

SHARON STALLS  
Distance Learning Specialist/Assistant to the Dean of Information Technology. A.A.S., A.A.S., Wilson Technical Community College.

TABATHA STANCIL  
Smart Start Professional Development Coordinator. A.A.S., Johnston Community College.

MARTY STANLEY  
Housekeeping.

MICHAEL STARLING  
Industry Services. B.S., East Carolina University.

DON W. STEPHENSON  
Biology. B.S., M.S., North Carolina State University. Additional study, Northeastern University.

DONNA STEPHENSON  
Secretary, Registrar. A.A.S., Wake Technical Community College. Additional study, Johnston Community College.

LESLIE G. STONE  
Media Services Technician. A.A.S., Technical College of Alamance.

JEAN STOWERS  
Medical Office Administration. B.S., Mount Olive College.

JON STRICKLAND  
Mathematics. B.S., North Carolina State University; M.Ed., Campbell University.

ROBERT STRONG  
Basic Skills. B.S., North Carolina Central University.

JIMMIE F. SUMEREL  

CAROL A. TART  
Administrative Assistant to the President. B.S.B.E., East Carolina University.

GAIL S. THOMPSON  
Secretary, Continuing Education. A.A.S., Johnston Community College.

PATSY H. THOMPSON  
Radiography. A.A.S., Johnston Community College; B.A.S., Mount Olive College. RT (ARRT) Registered.

R. GREG THOMPSON  
Student Activities Coordinator. B.S., East Carolina University.

SHARON THOMPSON  
Therapeutic Massage. Diploma, Gaston College; Diploma, Medical Arts Massage School; Diploma, Academy of Lymphatic Studies; A.A.S., University of the State of New York.

RACHEL TICE  
Secretary, Health Care Technology. A.A.S., A.A.S., Johnston Community College.

TOM TIGHE  
Chemistry. B.A., Oakland University; M.S., Wayne State University; M.S.M., North Carolina State University.
<table>
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<tr>
<th>Name</th>
<th>Program</th>
<th>Education and Additional Study</th>
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<tr>
<td>NANCY TURLINGTON</td>
<td>English</td>
<td>B.S., M.A., East Carolina University. Additional study, Campbell University, North Carolina Central University.</td>
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<tr>
<td>ARNOLD D. TURNER</td>
<td>Maintenance Mechanic</td>
<td></td>
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<tr>
<td>CHARMEIR S. UMPHREY</td>
<td>Preschool Teacher</td>
<td>B.S., North Carolina Agricultural and Technical State University.</td>
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<tr>
<td>JORGE VASQUEZ-KOOL</td>
<td>Biology</td>
<td>B.S., La Molina University; M.S., Ph.D., North Carolina State University.</td>
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<tr>
<td>JOYCE VAUGHN</td>
<td>Associate Degree Nursing</td>
<td>Diploma, Roanoke Memorial Hospital School of Nursing; B.S.N., Old Dominion University; M.S.N., Old Dominion University.</td>
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<tr>
<td>LARRY M. WALKER</td>
<td>Basic Skills</td>
<td>A.A., B.A., St. Leo University; A.A., Coastal Carolina University; A.A.S., Community College of the Air Force; M.A., Webster University; M.P.A., Golden Gate University; M.A., Southeastern Baptist Theological Seminary.</td>
</tr>
<tr>
<td>WENDY WEAVER</td>
<td>Radiography</td>
<td>A.A.S., Johnston Community College; B.S., Mount Olive College. RT (ARRT) Registered.</td>
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<tr>
<td>CYNTHIA R. WEBB</td>
<td>Disability Services Coordinator/Admissions Counselor</td>
<td>B.A., B.A., University of North Carolina at Chapel Hill; M.Ed., East Carolina University. Additional study, North Carolina State University.</td>
</tr>
<tr>
<td>MICHEAL J. WEINER</td>
<td>Basic Skills</td>
<td>B.A., University of North Carolina at Chapel Hill; B.A., Teachers Certificate, North Carolina Central University.</td>
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<td>SHANE WELLS</td>
<td>Developmental Studies</td>
<td>B.S., M.Ed., East Carolina University.</td>
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<td>TWYLA CASEY WELLS</td>
<td>Assistant Public Information Officer/Grantwriter</td>
<td>B.Mus., North Carolina School of the Arts.</td>
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<td>REX WEST</td>
<td>Truck Driver Training</td>
<td></td>
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<td>TINA W. WHICHARD</td>
<td>Accounts Payable Technician</td>
<td>A.A.S., Johnston Community College.</td>
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<tr>
<td>SANDRA WHITE</td>
<td>Associate Degree Nursing</td>
<td>A.D.N., Johnston Community College; B.S.N., Atlantic Christian College; M.S.Ed., Capella University.</td>
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<td>DALE WILLIAMS</td>
<td>Digital Electronic Repair</td>
<td>A.A.S., Johnston Community College.</td>
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<td>SARAH W. WOOD</td>
<td>Associate Degree Nursing</td>
<td>B.S.N., Atlantic Christian College.</td>
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<td>BETTY C. WOODALL</td>
<td>Financial Aid Officer</td>
<td>A.A.S., Johnston Community College; B.S., Barton College.</td>
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<tr>
<td>BILL WOODALL</td>
<td>Mathematics</td>
<td>B.A., Campbell University; M.A., East Carolina University.</td>
</tr>
<tr>
<td>CHRISTOPHER D. WOODARD</td>
<td>Groundskeeper</td>
<td></td>
</tr>
<tr>
<td>DARLYN G. WOODHOUSE</td>
<td>Basic Skills</td>
<td>B.S., Pacific Northwestern University.</td>
</tr>
</tbody>
</table>
Legend

8  Allied Health Building
1  Arboretum
10  Britt Bldg.
2  Elsee Bldg.
12  Fire Training Tower
3  Graphic Design Bldg.
5  Greenhouse
4  Maintenance Bldg.
7  Tart Arts & Learning Center
11  Truck Driver Training
6  Wilson Bldg.
9  Smith Bldg.