

GASTON COLLEGE

1997-98

academic catalog

{success starts here}

Matthew
Robinson

Gaston College
Computer Services

How to Use This Catalog

Important Sections

This catalog likely will be well-used throughout your time here at Gaston College. We suggest you skim through the entire book now, taking note of the main sections, then hold on to it for reference. You probably will find it beneficial to take a little more time in these sections:

- *Calendar*
- *Admissions*
- *Cost*
- *Financial Aid*
- *Registration and Records*
- *Your curriculum outline and course descriptions.*

To Help You

Also note these items, included for your convenience:

- *Table of Contents*
- *Index*
- *Glossary of terms used in this catalog; and*
- *Campus Map (back cover).*

Americans with Disabilities Act (ADA)

The information in this catalog is available in alternative format upon request. Contact the Office of Marketing and Public Relations, 922-6215.

Schedule of Classes

A schedule of classes is published each semester and is available approximately four weeks before each registration date. Schedules are available in the Admissions Office and at other campus locations. Please note that fees and curriculum can change at any time, so always check with your adviser before planning your schedule each semester.

GASTON COLLEGE ACADEMIC CATALOG FOR 1997-98

ADDRESSES

Gaston College
201 Highway 321 South
Dallas, North Carolina 28034-1499

Lincoln Campus of Gaston College
1 Timken Drive
Lincolnton, North Carolina 28092

PHONE NUMBERS

Main Campus:
(704) 922-6200
FAX (704) 922-6440

Lincolnton:
(704) 735-0487
FAX (704) 735-8292

INTERNET

www.gaston.cc.nc.us

NOTIFICATION OF NONDISCRIMINATION

Gaston College is committed to affirmative action and equal opportunity in employment and education and does not discriminate against current or potential employees or students on the basis of race, color, religion, sex, national origin, age, or disability. Inquiries concerning the college's affirmative action/equal opportunity policy should be directed to the: President's Office, Gaston College.

RIGHT TO CHANGE

The Board of Trustees and/or Administration of Gaston College reserves the right to change at any time, without notice: graduation requirements, fees and other charges, curriculum, course structure and content, and other such matters as may be within its control, notwithstanding any information set forth in this catalog. Gaston College reserves the right to cancel classes due to insufficient enrollment. Course offerings approved after publication of this catalog are described in class schedules which are issued each semester.

STUDENT RIGHT-TO-KNOW

The average rate of persistence toward degree completion by students at Gaston College is available in the Student Records Office.

Printed: June 1997

7,000 copies of this publication were printed at a cost of \$9673.00.

TABLE OF CONTENTS

I. GENERAL INFORMATION	5
Calendar.....	6
Gaston College Purpose	7
About the College.....	8
Facilities.....	8
Administration	10
Board of Trustees.....	10
Foundation Board of Directors.....	10
Accreditations and Memberships	11
II. ADMISSION	13
III. FINANCIAL INFORMATION	17
Cost to Attend Gaston College.....	18
Financial Aid	20
IV. EDUCATIONAL PROGRAMS	27
Transfer Programs	28
Associate in Applied Science Degrees	30
Diplomas.....	31
Certificates.....	31
Continuing Education.....	32
Life Skills	34
Developmental Education	35
Gaston College Learning Center	36
Peer Tutoring	37
Distance Learning.....	37
Cooperative Education	38
The University Center	39
V. POLICIES AND PROCEDURES	41
Student Responsibility.....	42
Student Records Office.....	43
Registration.....	44
Credit Hours and Course Loads	46
Credit by Exam.....	46
Advanced Placement	46
Transfer Information.....	47
Charlotte Area Consortium.....	48
Grading System	48
Satisfactory Academic Progress	50
Honors List	52
Graduation	53
VI. STUDENT SERVICES	55
Counseling and Career Development.....	56
Bookstore.....	56
Radio Station	56
Housing.....	57
Student Activities.....	57
Food Services	57
Child Care.....	57
Student ID Cards	58

VII. CURRICULA	59
Degree Programs	60
Diploma Programs	111
Certificate Programs.....	125
VIII. COURSE DESCRIPTIONS	145
IX. PERSONNEL	221
X. GLOSSARY	230
XI. INDEX	232
XII. CAMPUS MAP	236

General Information

COLLEGE CALENDAR OF INSTRUCTION

SUMMER 1997

Thursday, June 5	Registration
Monday, June 9	First Day of Class
Friday, July 4	Holiday
Friday, August 8	Last Day of Class and Graduation

FALL SEMESTER 1997

Thursday, August 21	Registration
Monday, August 25	First Day of Class
Monday and Tuesday, September 1-2	Holiday
Wednesday, Thursday, Friday November 26, 27, 28	Holiday
Friday, December 19	Last Day of Class

SPRING SEMESTER 1998

Thursday, January 8	Registration
Monday, January 12	First Day of Class
Monday, January 19	Holiday
Friday, April 10 through Friday, April 17	Holiday
Tuesday, May 12	Last Day of Class Classes end at 5:00 p.m. this date
Thursday, May 14	Graduation

SUMMER SEMESTER 1998

Thursday, May 21	Registration
Monday, May 25	First Day of Class and First Day of First Session
Friday, June 26	Last Day of First Session Classes
Monday, June 29 through Friday, July 3	Holiday
Monday, July 6	First Day Second Session
Friday, August 7	Last Day of Full Summer and Last Day of Second Session and Graduation

FALL SEMESTER 1998

Thursday, August 20	Registration
Monday, August 24	First Day of Class
Monday and Tuesday, September 7-8	Holiday
Wednesday, Thursday, and Friday November 25, 26, 27	Holiday
Friday, December 18	Last Day of Class

GASTON COLLEGE PURPOSE

Gaston College is a publicly supported, open door, comprehensive community college organized and chartered to be of service to the people of Gaston and Lincoln Counties and the state of North Carolina. Our purpose is to provide the wisdom, leadership, resources, and educational opportunities which enable individuals to achieve their personal and career goals and to contribute to an enriched climate of intellectual, cultural, and economic growth. Gaston College aspires to both teaching excellence and academic excellence. To this end, the College:

Assures quality instruction by establishing effective, innovative, and professional teaching practices; by updating methods, materials, and facilities; and by providing recognition for teaching excellence

Provides comprehensive technical education programs for individuals seeking to complete their formal education at the associate degree level and provides college parallel programs for students who intend to transfer to senior institutions

Provides vocational education programs for individuals seeking to complete their formal education at the certificate and diploma level

Promotes positive relationships with public and private schools, with colleges and universities, and with businesses and industries through continuous cooperative involvement in institutional access, articulation, instruction, and curriculum

Assures quality in all educational programs through continuous evaluation of instructional effectiveness, administrative proficiency, and resource allocation

Provides support services for all students, including specialized services for the disadvantaged, and handicapped, and other special needs groups, that will enable them to enroll in appropriate programs, make progress, and meet their educational goals

Provides developmental, basic education, and high school equivalency programs for individuals seeking fundamental education

Provides non-curricular courses and programs of employee education and training to satisfy the skill development needs of the work force, business, industry, and public agencies

Provides community service and developmental activities which support local civic, economic, educational, and cultural efforts and which establish cooperative relationships between the College and the community.

ABOUT THE COLLEGE

Gaston College was granted a charter by the State of North Carolina in 1963 and began its first classes in temporary headquarters in September of 1964. The college moved to its permanent campus on Highway 321 between Dallas and Gastonia two months later. Serving both Gaston and Lincoln Counties, Gaston College enrolls approximately 4,000 students each term in curriculum programs and averages 21,000 students annually in its Continuing Education Programs. Part of the North Carolina Community College System, Gaston College is accredited by the Southern Association of Colleges and Schools to award associate degrees.

FACILITIES

The twelve major buildings which comprise the Gaston College campus contain approximately 340,000 square feet and have an estimated current value of \$26,500,000. There is an efficient road system and parking for more than 2,000 cars. College facilities (including a 480-seat auditorium) are available for public use and may be scheduled through the office of Community Education.

Lincoln Campus

The Lincoln Campus of Gaston College was opened in August of 1969. It moved to its present location, Lincoln County School of Technology at 1 Timken Drive, in Lincolnton, in 1987.

Beam Art Gallery

The Dewey F. And Prue K. Beam Center for Visual Arts on the main campus of Gaston College displays the paintings, drawings, and sculpture of local and regional professional artists as well as students. Shows typically change each month. For gallery hours and information, call 922-6343 or 922-6200.

Regional Emergency Services Training Center

The Regional Emergency Services Training Center is a five-story training facility used by fire, police, and emergency medical service organizations. On the surrounding grounds, there are nine propane and flammable liquid pits and a precision defensive driving course. The center gives Gaston College the opportunity to offer specialized training previously unavailable in our region.

Morris Library and Media Center

The Morris Library and Media Center opened in the winter of 1997. Located behind the Comer Engineering Technologies Building, the 35,000 square foot building houses both library services and media services.

The library maintains open stacks on the first and second floors and allows access to over 45,000 books, 240 periodicals, 3,300 pieces of audiovisual materials, 36,000 microforms, computer software and CD-ROM's to use with equipment located in the building.

The library services available to students, faculty, and the public include:

- Reference and Research—This area is concerned with locating and using resources. Some of these services include the online public access catalog, electronic data bases on CD-ROM, First Search data bases, microforms of periodicals and printed materials.
- Circulation and Reserves—This area is concerned with materials check-out and check-in. It issues cards and sends overdue notices. The materials placed on reserve by instructors are handled by the staff.
- Collections Development—This area is concerned with selecting and ordering materials for the collections.
- Technical Processing—This area is concerned with cataloging and processing materials before they are put into circulation.
- Special Collections—This area is concerned with identifying, organizing and expanding the collections of rare/special books, local history and the College archives.

The media services include:

- Distance Learning—This area is concerned with interactive video and telecourses.
- Educational Video Production—This area is concerned with creating and editing television programs, commercials and educational videos.
- Satellite Teleconferencing—This area is concerned with receiving teleconferences via satellite. Programs are interactive and can be videotaped for later use.
- Audiovisual Production—This area is concerned with producing and duplicating audiovisual aids. Still photography is a part of this service.

The Morris Library and Media Center has a reciprocal agreement with Belmont Abbey College Library to allow the utilization of each other's services. Interlibrary loans can be made from other libraries through modem access by the reference librarian.

GASTON COLLEGE ADMINISTRATION

Dr. Patricia Skinner, President

Dr. John Reid, Vice President for Academic Affairs

Dr. Horace Cline, Vice President for Student Affairs

Ms. Pam Hall, Vice President for Administrative Services

Dr. Paul Berrier, Vice President for Campus Facilities

Mr. Richard Miller, Vice President for Finance and Operations

GASTON COLLEGE BOARD OF TRUSTEES

Officers:

Mr. Donald Walser, Chair

Mr. Jerry Cochrane, Vice Chair

Mr. Jerry Crisp, Secretary

Appointed by the Governor of North Carolina:

Mr. Hugh Bryant

Mr. Stephen Campbell

Mrs. Marianna Cone

Mr. Thomas Cloninger

Appointed by the Gaston County Board of Commissioners:

Mr. Donald Walser

Mr. Jerry Crisp

Mr. J. A. Dalpiaz

Mrs. Sarah Knowles

Appointed by the Gaston County Board of Education

Mr. Alan Albright

Mr. Joe Carpenter

Mrs. Johnnie Moore

Mr. David Robinson

Appointed by the Lincoln County Board of Commissioners:

Mr. Jerry Cochrane

Mr. Jim Sain

Ex Officio:

Student Government Association President

GASTON COLLEGE FOUNDATION, INC. BOARD OF DIRECTORS

Mr. J. A. Dalpiaz, President

Mr. Alan Albright

Mr. Don Ballard

Mr. Thomas Cloninger

Mr. Tom D. Efird

Mrs. Sarah Knowles

Mr. Larry Petty

Mr. Richard Earl Thomas

Mr. Robert Tull

Mr. Donald Walser

ACCREDITATIONS AND MEMBERSHIPS

Gaston College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

Four engineering technology curricula are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. ABET is recognized by the National Commission of Accrediting as the appropriate accrediting agency for the accreditation of engineering technology curricula. The nursing programs are accredited by the North Carolina Board of Nursing. The medical assisting program is accredited by the Committee on Allied Health Education and Accreditation. The North Carolina Office of Emergency Medical Services approves the Emergency Medical Science courses.

The following organizations are among those in which the college holds institutional memberships:

- Air Conditioning Contractors of America
- Accreditation Board for Engineering and Technology
- American Association of Collegiate Registrars and Admissions Officers
- American Association of Community Colleges
- American Library Association
- American Society for Engineering Education
- Association of College Administration Professionals
- Association of Community College Business Officers
- Association of Community College Trustees
- Charlotte Area Educational Consortium
- College and University Mail Services Association
- College Stores Association of North Carolina
- Cooperative Education Association, Inc.
- Enterprise 2000
- Gaston County Chamber of Commerce
- National Association of College Auxiliary Services
- National Association of College Stores
- National Association of College and University Business Officers
- National Association for Foreign Student Affairs
- National Council on Black American Affairs/AACC
- National Council for Marketing and Public Relations
- National League for Nursing
- North Carolina Association of Colleges and Universities
- North Carolina Association of Community College Presidents
- North Carolina Association of Community College Trustees
- North Carolina Citizens for Business and Industry
- North Carolina Cooperative Education Association
- North Carolina Council of Practical Nurse Educators
- Piedmont Area Educational Consortium
- Southern Association of College and University Business Officers
- Southern Association of Colleges and Schools
- Southern Association of Community, Junior and Technical Colleges

GENERAL ADMISSION REQUIREMENTS

Gaston College subscribes to the open door admission policy. Although restrictive standards for admission are not imposed, admission to the college does not guarantee immediate admission to the curriculum desired by the applicant. Admission to certain programs may be affected by special program requirements.

High school graduation or the equivalent is required of all applicants for degree programs.

ASSOCIATE DEGREE

The following steps must be completed before students are admitted as degree-seeking students:

1. Submit to the Admissions Office a completed Application for Admission.
2. Request that your high school mail an official transcript to the Office of Admissions at Gaston College, 201 Hwy. 321 S., Dallas, NC 28034-1499. (GED or Adult High School Diploma is acceptable with a minimum score of 225 and no subscore less than 35.)
3. Schedule and take the ASSET placement instrument. A transfer student who has earned a "C" in *both* college-level math and English from a regionally accredited institution shall have the test waived. The college uses test scores to place students in developmental or regular courses.

Degree applicants are encouraged to apply early to ensure completion of admission files prior to enrollment. Degree applicants may enroll on a provisional basis until all admission requirements are met, such as receipt of transcripts and ASSET scores. However, all admission requirements must be met before a student can begin a second semester of enrollment.

CERTIFICATE/DIPLOMA

A certificate or diploma student is one who is enrolled in a program of study leading to a diploma or certificate in a specialized field. Credit earned for work may be applied to the associate degree when the student is admitted and classified as a degree student.

Applicants planning to enroll in a certificate or non-vocational diploma program must submit an Application for Admission and high school and college transcripts to the Admissions Office.

TRANSFERRING FROM ANOTHER COLLEGE

Applicants transferring to Gaston College must submit all requirements for general admission. In addition, transfer applicants must submit transcripts from all other post-secondary institutions attended. The name you are currently using should appear on each transcript submitted.

NON-DEGREE APPLICANTS

Applicants planning to enroll in courses for special interest must submit an Application for Admission. Certain courses may require prerequisites and/or placement testing. Non-degree students do not qualify for degree status unless general admission requirements are met. A major must be declared upon completion of 15 credit hours.

RE-ADMISSION

Any student who has withdrawn and wishes to re-enter must verify current status with the Admission Office. An Application for Admission or file update may be required.

INTERNATIONAL STUDENTS

International students must meet all admission requirements listed under General Admission Requirements. All official transcripts sent to the Admissions Office must be translated and certified before being sent to Gaston College. All applicants from countries whose language is not English must demonstrate proficiency in the English language by scoring no less than 500 on the Test of English as a Foreign Language (TOEFL). Applicants must present evidence of adequate financial resources and F-1 visa status. All F-1 students pay out-of-state tuition rates. Admission requirements must be completed at least six weeks prior to the semester for which admission is sought.

DUAL ENROLLMENT PROGRAM

High school 11th or 12th graders, 16 years of age or older, upon approval by their principal, may be admitted as special students to appropriate courses (credit as well as non-credit) at Gaston College. Applicants are admitted on a space available basis into regular classes at the college.

Applicants must be taking at least three courses at the high school and be making progress toward graduation; or (in the case of courses offered in the summer) the principal must certify that a student took at least three high school courses during the preceding year and made appropriate progress toward graduation.

Students must obtain a Dual Enrollment Form from their principal and complete a Gaston College Application for Admission. The Dual Enrollment Form must be completed and all appropriate signatures obtained before enrollment will be allowed.

(All course prerequisites apply to dual enrollees. Therefore, a dual enrollment student who wishes to take college-level English, math, or reading must achieve a minimum score on ASSET, the college placement instrument.)

RESIDENCY

Gaston College is supported by the taxpayers of North Carolina and Gaston and Lincoln Counties. Students who are not state residents pay out-of-state fees. A student's official residency status is determined at the time of registration according to the residency policy of the state of North Carolina, the North Carolina Community College

System, and the Gaston College Board of Trustees. A change of address does not automatically entitle a student to pay the same instructional fees as a North Carolina resident. Request to change one's residency status should be submitted to the Admissions Office. More information on residency requirements can be obtained from the Admissions Office.

To qualify for in-state tuition, a legal resident must have maintained residency in North Carolina for at least the twelve months immediately preceding the date of first enrollment in an institution of higher education in this state.

The legal residence of a person under 18 years of age at the time of first enrollment in an institution of higher learning in this state is that of his/her parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the minor's domicile is deemed to be North Carolina for the time period that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent.

CHANGE OF ADDRESS

A student should report a change of address on forms available in the Student Records Office.

Faint, illegible text, likely bleed-through from the reverse side of the page. The text is too light to transcribe accurately.

Financial Information

COST TO ATTEND GASTON COLLEGE

Gaston College, supported by the taxpayers of North Carolina and Gaston and Lincoln Counties, maintains modest instructional and general fees which are subject to change by action of the state of North Carolina and the Board of Trustees of Gaston College.

CURRICULUM COURSES

Instructional Fee Per Semester Hour of Credit

North Carolina Residents

\$20.00

Out-of-State Residents

\$163.00

The maximum instructional fee for residents of North Carolina is \$280.00 per semester for 14 or more credit hours. The maximum instructional fee for out-of-state residents is \$2,282 per semester for 14 or more credit hours. (During the summer term, the maximum charge is for 9 hours.)

CONTINUING EDUCATION COURSES

There is a \$35 registration fee per person per course for occupational courses. Academic, practical skills courses, and avocational (special interest) courses vary in cost.

Continuing Education students pay no activity fee; however, they do pay the current usage fee.

EXCEPTIONS

Dual enrollment students pay no tuition (except for self-supporting continuing education classes). However, they do pay all other fees.

Students 65 or older do not pay registration or other fees (except for self-supporting continuing education classes).

OTHER GENERAL FEES

Student Activity Fee

\$.75 per semester hour of credit

The maximum quarterly students activity fee is \$4 for 8 or more credit hours for in-state and out-of-state residents. Student Activity Fee is not charged for the summer term.

Some courses may require an additional supply fee. Courses requiring additional fees will be identified in the class schedule.

Usage Fee

\$6.00 per semester.

Graduation Fee

\$15

Lab Fee

\$3 per lab hour

The maximum lab fee is \$27 per semester for in-state and out-of-state residents.

Malpractice Insurance

Approximately \$22 or \$40 per year depending on courses.

Individuals enrolled in nursing and health services programs are required to pay an annual malpractice premium.

American College Test

The current cost is \$16.50 for those students required to take the American College Test for guidance purposes and is payable at the time the test is taken.

RETURNED CHECKS

A fee of \$20 will be assessed any student whose check is returned.

RIGHT TO CHANGE FEES

All college fees are subject to change without notice.

REFUNDS

Curriculum Programs

If a student withdraws from a class or classes before the 20 percent date, a 75 percent tuition refund will be given for the class(es) dropped. Students must apply for the refund by marking the appropriate box on the withdrawal form. No refunds will be given after the 20 percent date. If a course fails to materialize, refunds are automatically processed. The 20 percent date is published in the course schedule each term.

(The refund policy is subject to change. Refunds of tuition will be issued in accordance with the current state and college policy.) Refund checks will be mailed within six weeks of the last drop add day.

Continuing Education Courses

Refunds will not be made except in the following circumstances: 1.) For classes that are scheduled to meet four times or less, a full refund shall be made upon the request of the student if the student officially withdraws prior to or on the first day of the class(es). 2.) For classes that are scheduled to meet five or more times, a 75 percent refund shall be made upon the request of the student if the student officially withdraws prior to or in the official 20 percent point of the class(es). Fees for self-supporting courses will not be refunded unless the course is canceled.

ACCIDENT INSURANCE

Gaston College does not have insurance to cover students if they are injured on the Gaston College campus or in a college related activity. It is advisable, therefore, that students (especially those in areas which could be considered as potentially hazardous) make certain they have appropriate coverage under a personal accident policy or that of a parent.

For those who find they do not have accident insurance coverage, information on a student insurance program is available from the Business Office in the Administration Building.

FINANCIAL AID

GENERAL INFORMATION

Financial assistance is available in the form of scholarships, grants, loans, and work programs. Every effort is made by the institution to help students who need assistance. Financial aid is intended to supplement, not replace, financial contributions from the student and his or her family.

There are three types of financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships which do not have to be repaid. Loans and work are self-help programs. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

HOW ELIGIBILITY IS DETERMINED

Gaston College uses the Free Application for Federal Student Aid (FAFSA) to assess the financial condition of financial aid applicants. Information entered onto the FAFSA is analyzed according to the requirements of the U.S. Congress and federal guidelines. This ensures that all applicants are treated fairly and equitably. Such items as income, assets, family size, marital status, number of family members in the household in college are used to determine eligibility.

Results of the FAFSA indicate the amount the student and his or her family can contribute toward the student's education. Most financial aid is based on need rather than on scholastic record. Financial need is the difference between the total education expenses and what the family is expected to contribute.

HOW TO APPLY FOR FINANCIAL AID

Students who are entering Gaston College and are in need of financial aid are requested to follow this application procedure:

1. After the application for admission has been submitted (See Admissions), the student should contact the Financial Aid Office. Instructions for applying will be mailed to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who wishes to apply for financial assistance must file a Free Application For Federal Student Aid (FAFSA) and must apply for a Federal Pell Grant. The student must complete and submit the Gaston College Financial Aid Application. The FAFSA is available at local high schools, the Lincoln Campus, and the Financial Aid Office on the main campus and near each divisional office (Liberal Arts and Sciences, Business and Computer Science, Industrial Technologies, Nursing and Health Sciences, and Engineering Technologies).

3. The student applying should report for a personal interview when designated.
4. After determination of scholarship, loan, grant, or work-study award, the recipient will be notified by letter.

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these **must not** exceed total financial need. The awarding of aid is based on funds available.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to the student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the “Satisfactory Academic Progress Requirements” as defined specifically for financial aid recipients. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility may be regained. Student coursework must be restricted to the major that is on file in the Registrar’s Office. Courses taken outside of the approved major may require adjustment to the financial aid award.

FEDERALLY SPONSORED PROGRAMS

Eligibility

Students must meet the following requirements before they can receive federal financial aid funds:

1. have financial need, except for some loan programs;
2. have a high school diploma or a General Education Development (GED) certificate, or a passing mark on an independently administered test approved by the U.S. Department of Education, or meet other standards that are approved by the U.S. Department of Education;
3. be enrolled as a regular student working toward a degree, diploma or certificate in an eligible program. (Students may not receive aid for correspondence or telecommunications courses unless they are part of an associate, bachelor, or graduate degree program.);
4. be a U.S. citizen or eligible noncitizen;
5. have a valid Social Security Number;
6. make satisfactory academic progress;
7. sign a statement of educational purpose/certification statement on refunds and default (found on the Student Aid Report);
8. sign a statement of undated information, if required (found on the Student Aid Report);
9. register with the Selective Services, if required.

Federal Pell Grant

The Federal Pell Grant program is designed to provide financial assistance to those who need it. The amount of the Federal Pell Grant is determined on the basis of the

student's and his/her family's financial resources, and the expected family contribution.

The Federal Pell Grant Award is a grant and, unlike a loan, **does not** have to be repaid. Every student who is applying for financial aid at Gaston College must apply for the Federal Pell Grant. Applications may be obtained at area high schools or from the Financial Aid Office.

Federal Supplemental Educational Opportunity Grant (FSEOG)

This program of direct grants of financial aid is for students of exceptional financial need who without the grants would be unable to continue their education.

Federal Stafford Loan (William D. Ford Federal Direct Loan Program)

This program enables the student to borrow directly from the federal government serviced by the Gaston College Financial Aid Office. The educational loan is guaranteed by the federal government.

To apply for the federal loan, a student must submit a Free Application for Federal Student Aid (FAFSA) for the assessment of the financial condition. An authorized credit check is processed on site using the Southeastern Credit Bureau, Inc. software application and the "BEACON" rating system. No interest is charged while the student is in school or six months after he or she leaves school. Payments begin six months after the student graduates or leaves school.

Applications are available in the Financial Aid Office and other campus locations.

Federal College Work-Study Program (Federal/Institutional)

Gaston College participates in the college work-study program which provides on-campus work opportunities for students needing financial assistance to attend school. Work is available in the library, faculty offices, administrative offices, laboratories, shops, and building and ground maintenance. Students working under this program are paid monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the Financial Aid Office will take into account the student's (1) need for financial assistance, (2) class schedule, (3) health, and (4) academic progress.

STATE-SUPPORTED PROGRAMS

North Carolina Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintain academic progress may apply for the North Carolina Student Incentive Grant (NCSIG). Students must demonstrate "substantial financial need."

The NCSIG program is administered in North Carolina by the Free Application for Federal Student Aid. Details of the application process are available from high school guidance counselors and from the Financial Aid Office. Application deadline is March 15 each year for the following academic year.

North Carolina Student Loan Program for Health, Science, and Mathematics

This program was formerly known as the North Carolina Medical Student Loan Program, and it is operated as a Special Program Department of the North Carolina State Education Assistance Authority. To be eligible for the loan, students must be legal residents of North Carolina who are enrolled full time in degree programs pursuing careers in health, mathematics, or science. Students may apply for this loan through the N.C. Education Assistance Authority. Students may attend a North Carolina post-secondary institution or eligible out-of-state institution. Award recipients are chosen according to major, academic capabilities, and financial need. Further information is available from the Financial Aid Office.

Nurse Education Scholarship Loan (NESLP)

The N.C. General Assembly created this program in 1989 in an attempt to alleviate the nursing shortage.

Recipients must be enrolled in the LPN or the RN program, be North Carolina residents, and demonstrate financial need. The repayment of the loan may be forgiven by working as a nurse in North Carolina. Recommendations are made by the Financial Aid Office.

Wachovia Technical Scholarship

This fund was established through a gift from the Wachovia Bank and Trust Company to the NC Community College System.

To qualify as a candidate for this scholarship, a person must be a full-time student enrolled in the second year of a two-year technical program, must demonstrate financial need and scholastic promise, and must use the scholarship to pay for books, tuition, and transportation. The recipient is selected by the Financial Aid Committee.

N.C. Community Colleges Scholarships

The 1984 General Assembly appropriated \$2,000,000 to the NC Community College System to be invested. The interest from the investment is used to fund scholarships at every member institution.

To qualify as a candidate for the scholarship, a person must be a North Carolina resident, must be enrolled full time or part time in curriculum courses, and must maintain a 2.0 GPA. The NC Community College System established priorities to be used in the selection process. The recipients are selected by the Financial Aid Committee.

Southern Bell Scholarship

In July 1986, the State Board of Community Colleges accepted a gift from Southern Bell Telephone and Telegraph Company to establish a scholarship program at selected community colleges located in Southern Bell service areas.

The recipients are selected using criteria established by the NC Community College System. The recipients must be North Carolina residents enrolled in courses of study leading to a degree or diploma. They must maintain a 2.0 GPA. Students with the

greatest financial need will be given top priority. Secondary consideration is given to students whose job skills have become obsolete because of economic recession.

LOCALLY SUPPORTED PROGRAMS

Gaston College currently offers several locally supported scholarships. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what criteria are to be used in awarding them. Scholarships available are as follows:

Beam Construction Company Scholarship

The Beam Construction Scholarship was established in 1996. This scholarship is for students in the drafting, welding or other construction programs. Selection is made by the Financial Aid Committee.

Bonnie Hoyle Memorial Scholarship

The Bonnie Hoyle Memorial Scholarship was established in the fall of 1996, as a memorial to Ms. Bonnie Hoyle, an instructor in the Mechanical Engineering Technology Program. Recipients will be selected from students pursuing this program.

McKenney Family Dealership/Bill Sharpe Memorial Scholarship

The scholarship was established in 1996 by the McKenney Family Dealerships as a memorial to Mr. Bill Sharpe. Recipients will be selected for students in the Automotive Technology Program.

John Reeves Gamble, M.D., Scholarship

This scholarship was established in 1965 as a memorial to Dr. John Reeves Gamble for years of service in the Lincoln County area. The recipient must be a Lincoln County resident and maintain a 2.0 GPA; need can be a determining factor.

Pearl Davidson Rhodes Scholarship

This scholarship was established in 1965 as a memorial to Mrs. Pearl Davidson Rhodes for years of service in the Lincoln County area. The recipient must be a Lincoln County resident and maintain a 2.0 GPA; need can be a determining factor.

David Belk Cannon Scholarship

This scholarship was established in 1996 as a memorial to the family of Mr. David Belk Cannon. The selection is based on merit, and the recipient must maintain a 3.0 GPA. The recipient will be selected by the Gaston College Scholarship Committee.

Pearl Dixon Balthis Foundation Scholarship

This scholarship was established in 1971. The scholarships are awarded based on character, academic standing, and financial need. The recipients should be from Gastonia or Gaston County or from North Carolina at large if suitable applicants are not available from Gaston County. The recipients will be selected by the Financial Aid Scholarship Committee.

Mickey Joel Helms Scholarship

This scholarship was established in 1965. The scholarship is awarded each year to a Cherryville High School senior who will be attending Gaston College. The selection will be based on scholastic ability, personality, and need with no particular emphasis on any one factor. The recipient will be selected by the Financial Aid Scholarship Committee.

Hunter Huss Endowment Scholarship

This scholarship was established in 1968 in honor of Mr. Hunter Huss for years of service as an educator. The recipient must be a Gaston County high school graduate who has maintained suitable academic progress. The recipient will be selected by the Financial Aid Office.

Ruth and Harry Huss Endowment Scholarship

This scholarship was established in 1989 by Mr. and Mrs. Harry Huss. The recipients of this scholarship must exhibit financial need. The recipients will be selected by the Financial Aid Office.

Houser Endowment Scholarship

This scholarship was established in memory of Mr. Fred K. Houser. The number of recipients is determined by the amount of funds available. The recipients must be Cherryville High School graduates, show academic promise, and have financial need. Nominations are accepted from Cherryville High School. The recipients will be selected by the Financial Aid Scholarship Committee.

T. Jeffers Endowment Scholarship

This scholarship was established in honor of T. Jeffers, who was an educator in Gaston County and the mayor of Gastonia. The awards are based on academic merit and/or need. Applicants must pursue a degree, diploma, or certificate and satisfy all entry requirements at Gaston College for their proposed programs of study. The scholarships are not renewable. For more information, contact the Financial Aid Office.

Maurice Honigman Endowment Scholarship

This scholarship was established in memory of Mr. Maurice Honigman. The recipient must be a graduate of Ashbrook or Hunter Huss High School, must be a full-time student at Gaston College, must have financial need, and must possess the academic potential to complete his or her selected course of study.

Hershal Hoyle Beam Endowment Scholarship

This scholarship was established in memory of Mr. Hershal Hoyle Beam, Gaston County educator. The recipient must have graduated from Hershal Beam Elementary, Southwest Junior High, and Hunter Huss High schools. The scholarship is open to any degree seeking student who demonstrates financial need. The student must be enrolled full time and maintain a grade point average (GPA) of 2.5 - 3.0. Recipients of the scholarship are required to send thank you notification to the family. For information, contact the Financial Aid Office.

Management Honors (Academic) Scholarship

These scholarships are designed for high school seniors who have demonstrated academic excellence and plan to attend Gaston College. The scholarships are not based on need. To be eligible for scholarships, applicants must have maintained a "B" average (85.0 on a 100 scale) and plan to attend Gaston College full time. Applicants must satisfy all requirements for their proposed programs of study. Applicants must be from Gaston and Lincoln Counties. Scholarships are renewable.

Career Scholarships

These scholarships are for high school seniors who intend to pursue careers in specified Engineering Technologies or Industrial Technologies majors and satisfy all entrance requirements for their proposed programs of study at Gaston College. These scholarships are not based on need. To be eligible for the scholarships, applicants must present evidence of expectation of high school graduation and plan to attend Gaston College full time. Applicants must intend to pursue a degree, diploma, or certificate in the Engineering Technologies or Industrial Technologies Divisions. Scholarships are renewable but the award will not be extended beyond three semesters for a diploma program or five semesters for a degree program. Off-campus co-op semesters will not be included in the scholarship.

VETERANS INFORMATION

Students may be eligible for educational benefits from the Department of Veterans Affairs (DVA) while attending Gaston College. Gaston College has been approved as an institution qualified and equipped to provide education in the arts and sciences and in the career program areas under the provisions of Chapter 30, 31, 32, 35 or 1606 of Title 38 of the U.S. Code.

Veterans in degree programs must show evidence of high school completion to be eligible for DVA certification and benefits. Veterans without a high school diploma who wish to enter degree programs on a probationary status must first satisfy the probationary requirements and obtain the approval of the State Approving Agency before they can be certified for the DVA educational benefits. Veterans entering the GED program must provide the college with their latest high school transcript.

A grade of "S" sometimes awarded in Developmental Studies courses may be awarded to veterans or to veterans' dependents receiving DVA educational benefits.

Records of progress are kept by this institution on veteran and non-veteran students alike. Progress records are furnished to students at the end of each scheduled school term.

Veterans will accept the responsibility for overpayment made due to failure to follow school and/or Department of Veterans Affairs regulations. Any changes in the placement of a student must be justified in writing by a Gaston College counselor, department head, or instructor. This justification will be included in the student's academic records.

VOCATIONAL REHABILITATION

The state of North Carolina provides financial assistance for residents who have permanent handicaps. Information concerning such aid is available through the Director of Vocational Rehabilitation, N.C. Department of Public Instruction, Raleigh, North Carolina 27611.

Educational Programs

COLLEGE TRANSFER PROGRAMS

(Associate in Arts, Associate in Science, Associate in Fine Arts)

The college transfer curriculum includes a wide range of course offerings in liberal arts and sciences for all students at the college. Some students take only a few courses each semester, but may enroll in a two-year sequence and earn the Associate in Arts, Associate in Fine Arts, or Associate in Science Degree.

Students can plan their program in order to transfer to four-year colleges and universities. These students enroll in what is usually referred to as the transfer curriculum which offers courses that parallel those offered the first two years at four-year institutions. Credits earned in this curriculum may be transferred to colleges and universities as the first and second year of a baccalaureate degree program. Students who intend to transfer their credits should plan their courses with a Gaston College counselor to be certain they will meet the current requirements at four-year colleges and universities. Students who have not decided upon a major but intend to transfer their credits toward a four-year degree should also meet with a counselor from the four-year school.

Students who select the Associate of Arts (A10100) degree at Gaston College transfer to senior colleges to pursue such majors as the following:

Anthropology	French	Psychology
Art	History	Social Work
Business Administration	Music	Sociology
Education	Pre-Law	Spanish
English	Pre-Ministry	

Students who select the Associate of Science (A10400) degree at Gaston College transfer to senior colleges to pursue such majors as the following:

Agriculture	Mathematics	Pre-Optometry
Architecture	Nursing	Pre-Veterinary Medicine
Business Administration	Physical Therapy	Science-Biology, Chemistry, & Physics Options
Education	Pharmacy	Textile-Chemistry or Textile Technology
Engineering	Pre-Dentistry	
Forestry	Pre-Medicine	

Students who select the Associate of Fine Arts degree (A10200) at Gaston College transfer to senior colleges to pursue such majors as the following:

Art	Commercial Music	Interior Design
Art Education	Drama	Music Education
Commercial Art		

Each student should confer with a counselor or advisor about course selection prior to registration. Only with approval of the appropriate dean may students substitute courses for those specifically required for graduation and courses outside the area of specialization. Students are responsible for the proper completion of their academic programs based upon the requirements stated in the Gaston College Catalog in conjunction with the current schedule.

Counselors or advisors will provide assistance to students concerning transfer to other institutions. Transfer of credits from one institution to another is subject to change. Therefore, it is the responsibility of the transferring students to research their prospective senior institution. Students may contact the counseling department of Gaston College or the admissions office at the college to which they plan to transfer for information and guidance on transfer of credits. **Though faculty members, staff members, counselors, advisors and administrators are available to help students with planning, the responsibility rests upon the individual student.**

ASSOCIATE IN APPLIED SCIENCE

The Associate in Applied Science Degrees are two-year terminal programs that prepare the student for the job market. However, there are some senior institutions where these degrees are accepted as the first two years of a four year program. A few of the senior institutions which accept some of our Applied Science Degrees are

Appalachian State University
Belmont Abbey College
Gardner-Webb College
Mars Hill College

Pfeiffer College
University of NC at Charlotte
Western Carolina University
Winston-Salem State University

Some senior institutions will evaluate the Associate of Applied Science Degree on a course-to-course basis.

The minimum requirements for the Associate in Applied Science Degree vary with the field of concentration. The completion of no fewer than twenty (20) semester hours while in attendance at Gaston College is required.

A student is eligible to graduate with an Associate in Applied Science Degree upon completion of the curricula requirements for the particular program listed in this catalog.

A student must have a 2.00 grade point average on courses presented for graduation.

Associate in Applied Science degrees are offered in the following programs:

ACCOUNTING (A25100)
ARCHITECTURAL TECHNOLOGY (A40100)
AUTOMOTIVE SYSTEMS TECHNOLOGY (A60160)
BROADCASTING PRODUCTION TECHNOLOGY (A30120)
BUSINESS ADMINISTRATION (A25120)
CIVIL ENGINEERING TECHNOLOGY (A40140)
CRIMINAL JUSTICE TECHNOLOGY (A55180)
EARLY CHILDHOOD ASSOCIATE (A55220)
ELECTRONICS ENGINEERING TECHNOLOGY (A40200)
EMERGENCY MEDICAL SCIENCE (A45340)
FIRE PROTECTION TECHNOLOGY (A55240)
INDUSTRIAL ENGINEERING TECHNOLOGY (A40240)
INDUSTRIAL MANAGEMENT TECHNOLOGY (A50260)
INFORMATION SYSTEMS-PROGRAMMING (A2526E)
MACHINING TECHNOLOGY (A50300)
MECHANICAL DRAFTING TECHNOLOGY (A50340)
MECHANICAL ENGINEERING TECHNOLOGY (A40320)
MEDICAL ASSISTING (A45400)
NURSING (ASSOCIATE DEGREE NURSING) (A45120)
OFFICE SYSTEMS TECHNOLOGY (A25360)
OFFICE SYSTEMS TECHNOLOGY-LEGAL (A2536A)
OFFICE SYSTEMS TECHNOLOGY-MEDICAL (A2536B)
PARALEGAL TECHNOLOGY (A25380)
VETERINARY MEDICAL TECHNOLOGY (A45780)

DIPLOMAS

A student is eligible to graduate with a diploma upon completion of the curriculum requirements for the particular program listed in this catalog.

A student must have a 2.00 grade point average on courses presented for graduation.

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY (D35100)

AUTOMOTIVE SYSTEMS TECHNOLOGY (D60160)

BROADCASTING PRODUCTION TECHNOLOGY (D30120)

EARLY CHILDHOOD EDUCATION (D55220)

ELECTRICAL/ELECTRONICS TECHNOLOGY (D35220)

ELECTRONICS ENGINEERING TECHNOLOGY (D40200)

ELECTRONICS SERVICING TECHNOLOGY (D50120)

INDUSTRIAL MAINTENANCE TECHNOLOGY (D50240)

MACHINING TECHNOLOGY (D50300)

MECHANICAL ENGINEERING TECHNOLOGY (D40320)

OFFICE SYSTEMS TECHNOLOGY-GENERAL (D25360)

PRACTICAL NURSING (D45660)

WELDING TECHNOLOGY (D50420)

CERTIFICATES

A minimum of 75 percent of the requirements for the certificate must be completed at Gaston College.

A student must have a 2.00 grade point average on courses presented for graduation.

AIR CONDITIONING, HEATING, AND REFRIGERATION (HEATING CERTIFICATE, HEAT PUMP CERTIFICATION, COOLING CERTIFICATE) (D35100)

ARCHITECTURAL TECHNOLOGY (CAD CERTIFICATION) (C40100)

AUTOMOTIVE SYSTEMS TECHNOLOGY (AUTOMOTIVE ENGINES AND POWER TRAINS, AUTOMOTIVE FUEL AND ELECTRICAL SYSTEMS) (C60160)

BASIC COMPUTER SKILLS (C25260)

BASIC LAW ENFORCEMENT TRAINING (C55120)

CHILD DEVELOPMENT ASSOCIATE PREPARATION (C55220)

CIVIL ENGINEERING TECHNOLOGY (C40140)

INDUSTRIAL ENGINEERING TECHNOLOGY (C40240)

INDUSTRIAL MAINTENANCE MECHANICS (C50240)

INDUSTRIAL MANAGEMENT TECHNOLOGY (C50260)

MACHINING TECHNOLOGY (BASIC MACHINE TOOL, COMPUTER NUMERICAL CONTROL PROGRAMMING) (C50300)

MECHANICAL DRAFTING TECHNOLOGY (C40320)

NURSING ASSISTANT (C45480)

PHLEBOTOMY (C45600)

CONTINUING EDUCATION PROGRAMS

As a non-credit arm of the college, Continuing Education has the flexibility to offer short-term courses, broad-based programs, and various services to the citizens of Gaston and Lincoln Counties.

COMMUNITY SERVICE PROGRAMS

Community Service programs include a wide variety of courses for the general public. Examples of these courses include language, literature, investments, sewing, bricklaying, traffic schools, painting, horseback riding, dancing, and arts and crafts.

CORPORATE EDUCATION

The Professional Development Institute encompasses a broad range of programs designed for the training and education needs of managers and professionals. The institute offers certification and review courses for Certified Managers, APICS, and CPA's. Gaston College is registered with the North Carolina State Board of CPA Examiners as a sponsor of continuing professional education. *Complaints or comments regarding registered sponsors may be addressed to the North Carolina State Board of CPA Examiners, P.O. Box 12827, Raleigh, NC 27605-2827.*

FOCUSED INDUSTRIAL TRAINING

The Focused Industrial Training Center classes are designed for specific groups of workers who need to update their skills because of technological changes.

NEW AND EXPANDING INDUSTRY

The New and Expanding Industry Program encourages businesses to create more jobs by providing funding for specialized training courses. These courses are offered free of charge to industry and range from basic employee relations to highly sophisticated production skills.

OCCUPATIONAL EXTENSION

Occupational Extension courses teach occupational skills and provide licenses and certification. Courses include office skills, computer training, quality control, manufacturing techniques, and commercial driving license preparation. Courses may be offered on campus or at community locations.

SMALL BUSINESS CENTER

The Small Business Center is a specially funded program which provides no-fee consulting and seminars for small business owners and prospective small business owners. The Gaston College center is one of 58 small business centers comprising the N.C. Community College Small Business Network. The Small Business Center provides assistance in developing business plans to obtain financing. Assistance is also given toward marketing, accounting, personnel, financing, and management concerns relating to small business.

CRIMINAL JUSTICE ACADEMY

The Criminal Justice Academy serves the area law enforcement agencies by offering a wide range of law enforcement extension courses. Among those offered are Officer Survival, Defensive Tactics, Baton Training, Legal Updates, Bike Patrol, Pepper Spray, Chemical Immobilization, Animal Cruelty, Command Spanish, and Accident Investigations. Other various inservice training courses offered are Firearms and Driver Training. Some inservice training courses are offered upon demand. Programs which offer certification from the North Carolina Criminal Justice Standards Division are: Radar Certification and Intoxilyzer Certification. Courses are offered on campus at the Regional Emergency Service Training Center and at various off-campus locations throughout Gaston and Lincoln Counties.

EMERGENCY MEDICAL SERVICES

The Emergency Medical Services Program serves local emergency medical agencies in emergency training for initial certification and recertification of both basic and advanced life support courses. Training is offered in cooperation with the State of North Carolina Office of Emergency Medical Services and leads to state certification. In some instances, training may lead to national certification. Additional courses are offered (both on-campus and off-campus) to meet the needs of EMS agencies in Gaston and Lincoln Counties.

REGIONAL EMERGENCY SERVICES TRAINING CENTER

The Regional Emergency Services Training Center provides basic, continuing, and advanced training to all areas of emergency services—fire, rescue, law enforcement, and emergency medical services. The primary intent of the RESTC is to improve the training and level of expertise, within emergency services, across the state of North Carolina.

The facility began operation in January 1991, and is located on 15 acres within the southern portion of the Gaston College campus. Within the RESTC is a 5-story, 21,000 square foot burn structure, which is the largest of its type in the United States. The burn structure houses a pitched-roof ventilation training area, industrial simulation areas, interior combustible liquid area, 5-story vertical confined space shaft, and 1800 square foot simulated smoke maze. In addition to the burn structure, there are also 12 flammable liquid/liquid petroleum gas pits, confined space areas, hazardous materials areas, emergency driving course, and training pavilion with fitness center.

FIRE & RESCUE TRAINING

Gaston College leads the state in the delivery of Fire and Rescue Training. This program assists local municipal and volunteer fire departments and rescue squads in the overall training of firefighter and rescue personnel. Certification training is delivered in cooperation with the N.C. Fire and Rescue Commission and the National Fire Academy, utilizing standards of the National Fire Protection Association. Current available programs which offer North Carolina certification are: Firefighter-Levels I & II, Basic Rescue Technician, Advanced Rescue Technician, and Emergency Driver/Operator & Pumps. Courses are offered on-campus, at the Regional Emergency Services Training Center, and at various off-campus locations throughout Gaston and Lincoln Counties.

INDUSTRIAL EMERGENCY RESPONSE TEAM & FIRE BRIGADE TRAINING

Gaston College leads the state in the delivery of Industrial Fire Brigade Training. This program provides training for local, regional, and national industry through the delivery of customized programs of training addressing the specific needs of each customer. These programs include on-site visits, consultations, and specialized courses in the areas of confined space, hazardous materials, basic and advanced fire suppression techniques, and rescue operations.

CONTINUING EDUCATION UNIT (CEU)

The Continuing Education Unit (CEU) is a nationally recognized measure of non-curriculum or non-credit educational achievement. College credits, either quarter or semester, are earned through successful endeavors in programs leading to degrees or diplomas. The Southern Association of Colleges and Schools requires its college members to participate in the CEU program.

Copies of CEU guidelines are available in each program office. Highlights are

- A course will have established objectives and content.
- A course will have standards of satisfactory performance and those standards will be announced at the first class meeting.
- Students may earn CEU's by satisfactorily meeting one of three standards:
 1. A minimum of 90 percent attendance in courses not having quality assessments.
 2. A combination of attendance and quality assessment.
 3. A written quality assessment and a minimum of 70 percent attendance.

Note: Some of these highlights are program specific through a state certification process.

Transcripts for Continuing Education are available from the Continuing Education Records Office.

LIFE SKILLS PROGRAMS

Basic skills programs are offered through the Gaston College Life Skills Department and consist of several components such as *Adult Basic Education/General Educational Development (ABE/GED)*, *Adult High School Diploma Program*, and *English As A Second Language*.

ADULT BASIC EDUCATION

The Adult Basic Education program teaches skills in reading, English, and mathematics from the most basic level through high school level. Students may study to improve their basic skills or prepare for the GED exams. The GED testing site is open daytime and evening hours, Monday through Thursday. Testing is by appointment only. A \$7.50 fee covers all five tests.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

The Adult High School Diploma Program is available to Gaston and Lincoln County residents who need to earn high school units in order to receive a diploma. To earn these units, students must attend classes, meet the requirements of the course, and pass a comprehensive final exam that will demonstrate competency in the particular subject. The Adult High School is offered as a free service to the community.

ENGLISH AS A SECOND LANGUAGE

Gaston College offers ESL classes that teach written and conversational English to immigrants preparing them for citizenship and life in the community. The class is offered at no charge to the students; class locations and hours may vary to better serve our students.

HUMAN RESOURCES DEVELOPMENT PROGRAM

The Human Resources Development Program is also offered by the Life Skills Department. Human Resources Development prepares the participants for the work place. In the eight-week course, students explore such topics as building positive attitudes and self-esteem, teamwork, and career opportunities in Gaston County. They also receive classroom instruction in the areas of math, English, and reading which improves their basic skills and prepares them, if necessary, for the GED exams. There is no fee for the HRD classes.

DEVELOPMENTAL EDUCATION

The Developmental Education program provides students with the opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum program. Applicants to degree, diploma, and some certificate programs are required to participate in the ASSET assessment program which provides placement information for reading, English, and math. Once the assessment scores are determined, students are counseled about the courses needed in order to reach their academic and career goals. Students placing into developmental courses may concurrently register for courses within their desired curriculum.

Developmental courses include basic college preparatory courses in reading, writing, and mathematics. In addition, the program offers a college orientation course which teaches strategies for successful learning.

Developmental Education Courses

		<i>Class</i>	<i>Lab</i>	<i>Credit</i>
ENG 080	Writing Foundations	3	2	4
ENG 090	Composition Strategies	3	0	3
ENG 090A	Essential Reading Strategies	0	2	1
RED 070	Essential Reading Skills	3	2	4
RED 090	Improved College Reading	3	2	4
MAT 060	Essential Mathematics	3	2	4
MAT 070	Introductory Algebra	3	2	4
MAT 080	Intermediate Algebra	3	2	4
ACA 118	College Study Skills	1	2	2

GASTON COLLEGE LEARNING CENTER

The Gaston College Learning Center, established in 1996, is designed to provide students with opportunities for academic and personal growth. The center is committed to the philosophy that given adequate services, support, time, and appropriate teaching strategies, all students can successfully accomplish their academic goals, whether that goal includes transfer to a four-year institution or the successful completion of a single course.

GCLC services are available to a diverse constituency. The program places primary emphasis on serving the needs of students “at risk” in the college environment. These students traditionally include those who are economically and educationally disadvantaged, disabled, or underprepared and students who are members of non-traditional or minority groups. However, services are not limited to these groups. The GCLC actively provides support to all students experiencing difficulty in achieving their potential. Additionally, faculty members may use the academic support services to supplement their classroom instruction by referring students to the GCLC. This service to the faculty also includes consultation on student’s needs, supplementary educational materials, and additional academic support services.

The program has one specific function in providing support for students of Gaston College. This function is to provide academic support services to the general student population. Services for the general student population include:

1. **GCLC Peer-Tutoring Services:** This program provides tutorial services in selected general education courses for all students by appointment. The program is staffed by tutors who have completed 24 credit hours or more (not including developmental classes). All tutors undergo initial training and meet regularly for planning, evaluation, and skills development. Tutoring services are available not only for students having difficulty in passing a course, but also for students wanting to improve a grade from “B” to “A.”
2. **Learning Skills courses:** The learning skills courses taught through the GCLC are designed to acquaint students with the motivation and the methods to learn and be successful in the academic setting. Emphasis is placed on skills and techniques for note-taking, test-taking, and test and supplemental book use, as well as for organization and research methods necessary for writing papers and for making oral presentations. Three or four sections of this course are offered each semester. Any student taking two or more developmental classes is required to take this course.
3. **Help for under-prepared students:** Under-prepared students who arrive at Gaston College need special assistance during their first few semesters on campus and beyond. Through the GCLC, these underprepared students are provided with support, special attention, and academic tutoring. They have special advisors among the developmental education faculty and staff. They are provided with the resources necessary to assist them in becoming successful, indepen-

dent learners. They are provided with learning skills classes to equip them with the skills necessary for them to be mainstreamed into the college.

4. **Academic probation:** Students who find themselves on academic probation need specialized advising and support. The GCLC provides support to faculty members who advise students on academic probation. Special contracts are provided, along with weekly meetings and the support necessary to help the students raise their GPA and enable them to remain in college. Peer tutoring is required for all students on academic probation to provide them with the study skills and strategies necessary to become successful students. Counseling will be provided for those students who have special problems that contribute to their academic probation.

PEER TUTORING PROGRAM

The Gaston College Peer Tutoring Program is a part of a larger academic support service called the Gaston College Learning Center. Tutorial services are offered in core curriculum courses on both an appointment and a walk-in basis. The program is staffed by paid and volunteer tutors who have A's in the courses they tutor, and who are recommended by their instructor and the chairperson of the department in which the course is taught. Tutors are carefully interviewed by the Learning Center Coordinator and undergo an initial training period. They also meet regularly with other tutors and staff members for planning, evaluation, and skills development. Careful records are maintained on all tutoring sessions. In addition to being knowledgeable and well-trained, tutors are also chosen for their sensitivity toward students and their interest in teaching. Students who are not satisfied with their understanding or performance in a course may use this **free** service. Help is available in the area of understanding concepts, problem-solving, and study skills. Tutoring services are available not only for the student who is having difficulty in passing a course, but also for those students who want to improve a grade from "B" to "A."

Peer tutoring services offer several options for students to increase understanding of course content and to improve performance.

Tutoring is available in the following core courses: **All math classes, English 101 and below, Psychology 101, Accounting 210, and Biology 101, and 122. Volunteer tutoring is available in other core courses. If a tutor is not available for a particular course, the tutor coordinator will make every effort to obtain one if the demand is sufficient. General tutoring is available in Room 121, Craig Arts and Sciences Building, from 8 a.m. to 9 p.m. Monday through Thursday and 8 a.m. to 2 p.m. on Friday. Help is available on an appointment basis.**

DISTANCE EDUCATION

Distance Education at Gaston College expands learning opportunities by using non-traditional delivery methods to meet the growing scheduling needs of students throughout Gaston and Lincoln Counties.

NORTH CAROLINA INFORMATION HIGHWAY (NCIH)

Through the North Carolina Information Highway, Gaston College can receive courses or teleconferences from other institutions using two-way interactive televisions in classrooms. Participants at the receiving sites interact with the presenters and participants at the originating sites. The Gaston College campus also delivers two-way interactive classes and presentations to the Lincoln Campus of Gaston College and to other institutions.

In addition to two-way interactive classrooms, Gaston College offers students Internet capabilities. Through Internet, students are given access to information from around the world for research projects. Future plans include offering classes over the Internet.

TELECOURSES

Telecourses are courses that are televised for adult learners and broadcast at specific times over local public television stations. Telecourses are designed for home or off-campus use and contain the same basic content found in the on-campus courses. In addition to the televised lessons, students are required to attend an orientation session and a minimum number of classes on campus. Students also purchase textbooks and study guides that correlate with the televised lessons. Communication between student and instructor throughout the semester is an integral part of this type of learning process.

COLLEGE-BY-CASSETTE

College-by-Cassette is similar to a telecourse, except the videotaped lessons are provided to each student on a set of video cassettes at the beginning of the semester. Students participate in on-campus orientations and scheduled meetings, purchase textbooks and study guides, complete tests and assignments, and communicate with the instructor in the same manner as in the telecourse learning process.

COOPERATIVE EDUCATION

Cooperative Education (Co-op) is an academic program which integrates classroom study with practical experience in industry, business and public agencies. The work experience constitutes a regular and essential element in the educational process by allowing students to apply their studies in a real work environment.

The Co-op work experience is concurrent or alternates with academic studies. It is a paid work experience and students receive academic credit toward the degree or diploma requirements. Students work from one to three semesters in either part-time or full-time jobs with employers selected and/or approved by the college. Students are contacted and evaluated periodically by a faculty coordinator and receive on-the-job supervision by the employers.

Eligibility

Students may be accepted from various programs of study at Gaston College provided they meet the following general criteria:

1. Be enrolled in an approved Co-op curriculum.
2. Have a minimum 2.00 GPA (this minimum may be higher, depending on degree or diploma).

3. Have successfully completed specific courses pre-selected by faculty.
4. Be recommended by the Co-op faculty coordinator.
5. Be approved by the Cooperative Education Office.

(Note: Enrollment in the Co-op Program does not guarantee placement for every student.)

Application Procedure

Interested students should obtain a Cooperative Education application form from the Co-op Office, a copy of their college transcript from Student Records, and schedule an interview with the Cooperative Education Program Coordinator.

Presently Employed Students

Students may qualify to receive academic credit if they are already employed in an area directly related to their academic major. The following general criteria will be used to determine eligibility:

1. The student must be acquiring new skills or knowledge related to their academic major, and/or
2. The student must be developing a recently-learned skill or applying recently-learned knowledge related to their academic major, and/or
3. The student must be receiving increased levels of responsibility related to their academic major, and
4. The employer agrees to assist with an evaluation of the student's progress and to permit on-the-job visits by Co-op staff.

Students who are interested in Cooperative Education are invited to contact the Co-op Office to obtain additional information about the program. NOTE: Co-op options are listed within each participating curriculum course outline.

THE UNIVERSITY CENTER AT GASTON COLLEGE

The University Center at Gaston College was established in 1990 through the efforts of Appalachian State University, The University of North Carolina at Charlotte, and Gaston College. The University Center brings courses leading to undergraduate or graduate level degrees to the Gaston College campus in order to make classes more accessible to the citizens of Gaston and Lincoln Counties.

Various institutions of higher learning throughout North Carolina participate with the Center to help meet the growing need for upper division and graduate educational opportunities for evening students. Gardner-Webb University presently offers undergraduate courses leading to a business administration or criminal justice degree. North Carolina Agricultural and Technical State University offers courses leading to a master of science in adult education, and Belmont-Abbey College offers courses leading to a master of business administration.

All undergraduate and graduate level classes offered as a part of The University Center on the Gaston College campus appear in the College's schedule of classes published each semester. For additional information, please call (704) 922-6482.

Faint, illegible text covering the upper portion of the page, possibly bleed-through from the reverse side.

THE UNIVERSITY OF CALIFORNIA
LIBRARY

Faint, illegible text covering the lower portion of the page, possibly bleed-through from the reverse side.

Policies and Procedures

STUDENT RESPONSIBILITY

Gaston College has established a set of regulations, policies, and standards in order to provide an academic environment that will promote quality education and assure compliance with state, federal, accreditation, and certification directives and statutes.

Students are responsible for the proper completion of their academic programs based upon the requirements stated in the *Gaston College Catalog* in conjunction with the current schedule. Faculty members, staff members, counselors, and administrators are available to help students with planning, but the responsibility of fulfilling all requirements rests upon the student.

CLASS ATTENDANCE

College instruction is designed for class attendance. The responsibility for class attendance is placed specifically on the student. At the beginning of each course it is the responsibility of each instructor to notify students in writing of the attendance requirements.

A student who fails to maintain attendance requirements may be dismissed from a given class upon recommendation of the instructor.

The student is responsible for all material covered in each course for which he is registered. In no instance does absence from class relieve the student from the responsibility for the performance of any part of the course work. The student is further responsible for initiating any request to make up work because of class absence. The decision to assist the student with makeup work, including tests, in every case rests with the instructor. The instructor may require verification of medical and personal circumstances presented by the student to influence this decision. Course work not made up may cost a student grade advantage in the final evaluation since the instructor is not required to offer the student an opportunity to make up course work.

A student may seek reinstatement into a class by submitting a written request to the instructor. If the request is denied, the student can petition for reinstatement directly to the Vice President for Academic Affairs, who will make a final ruling upon the petition.

STANDARD OF HONESTY

Dishonesty, cheating, plagiarism, and knowingly furnishing false information to the college are regarded by the college as serious offenses. It is expected that cases of dishonesty will first be considered at the department-faculty level, then the matter will follow procedures in accordance with the Code of Student Conduct.

THE STUDENT RECORDS OFFICE

The Office of Student Records and Registration directs registration each semester for credit classes. This office provides transcripts of student academic records (official and student copies), and verification and certification of enrollment status. The office also mails final grade reports, processes grade changes, orders and issues diplomas, and processes name and address changes.

Specific registration information is contained in *Register*, the class schedule.

FAMILY RIGHTS AND PRIVACY ACT/ RELEASE OF STUDENT INFORMATION

Gaston College has a long-standing commitment to the protection of students' rights and privacy of information. Gaston College complies with the provisions of the Federal Family Educational Rights and Privacy Act, State of North Carolina Law, and the State Department of Education Division of Community Colleges rules. These federal and state requirements relate to accessibility and confidentiality of student records. *Gaston College Procedures, Release of Student Information*, provides pertinent and detailed information concerning classification of student records and access and release provisions. This procedure is available to students, faculty, administration and staff in the office of the Vice President for Student Affairs and is also published in the *Student Handbook*.

Students have the right to inspect their educational records and correct such records if warranted. Students are protected from release of information without written consent. All student records are open for inspection and review by the student unless he or she waives this right. The parent(s) of a dependant student as defined in Title 26 U.S.C.S.s 152 Internal Revenue Code, also has this right to inspect records which are maintained by the college on behalf of the student.

There are three categories of records: (1) Directory Information Records, (2) Limited Access Records, and (3) Sole Possession Records.

- (1) *Directory Information Records*, which may be made public, includes a student's name, address, telephone number, date of birth, major field of study, dates of attendance, degrees received. This information will only be released by the Office of the Vice President for Student Affairs or designee after the requestor has demonstrated a legitimate need to have such information. Any student not wishing the release of directory information must complete a statement in the Student Records Office no later than the last day of drop/add. Otherwise, directory information may be disclosed for legitimate purposes by the college.
- (2) *Limited Access Records* pertain to the permanent academic records of the student, disciplinary records, financial information and testing data. The college will not release information in limited access records except with the written permission of the student.
- (3) *Sole Possession Records* pertain to records of instructional, supervisory, and administration personnel which are the sole possession of the maker and are not accessible or revealed to any other person.

CHANGE OF ADDRESS

Change of address forms are available in the Student Records Office.

STUDENT RIGHT-TO-KNOW

The average rate of persistence toward degree completion of students at Gaston College is available in the Student Records Office.

STUDENT CLASSIFICATION

- Evening: A student who is enrolled for a majority of course work scheduled after 4:30 p.m.
- Day: A student who is enrolled for a majority of course work scheduled before 4:30 p.m.
- Full-time: A student who is enrolled for twelve or more semester hours.
- Part-time: A student who is enrolled for fewer than twelve semester hours.
- Freshman: A student who has completed fewer than sixty semester hours of course work.
- Sophomore: A student who has completed sixty or more semester hours of course work.

CHANGE OF PROGRAM

Students may change their program by completing a Program Change Form available in the Student Records Office. The division dean for the new program will be asked to evaluate the student's transcript. Following the evaluation, the student's permanent record will indicate a change of program. Only one program change will be processed per year. Only the Gaston College grades accepted through the dean's evaluation will be considered in computing the Gaston College grade-point average for the new program. Credits successfully earned prior to the change will be applied toward the new program.

(NOTE: Students planning to transfer to another college or university are cautioned that the receiving institution may use all grades earned in computing grade-point averages for admission or other purposes.)

As soon as the program change process is complete, the student should begin following the course requirements from the *current catalog*, regardless of when he or she first enrolled at Gaston.

REGISTRATION FOR CURRICULUM COURSES

HOW TO REGISTER

Before a student may register he or she must have an application on file in the Admissions Office. Students are responsible for registering each semester on the designated registration days. Early registration by telephone is held approximately the ninth week of the semester for currently enrolled students. Prior to the start of the semester, open registration is held for all students—current, new and returning. The drop/add pe-

riod (late registration) is the first five days of class. The actual dates are published in *Register* each semester. Once a student's schedule has been entered into the computer, he or she can drop/add during any of the three registration periods (early, regular or late).

It is the responsibility of the student to ensure that all course and graduation requirements are met. A student will not receive credit for any course for which registration has not been completed. Students attending class for which they are not officially registered will receive neither a grade nor hour credits for the course.

A student who finds it necessary to drop a course should secure a drop form from the Student Records Office. The drop form must be signed by the student's advisor and returned to the Student Records Office for final processing.

The privilege of registering may be withheld by the college for the following reasons: unpaid fees, overdue loans, overdue library books, or incomplete admission records. Exceptions may be made by the chief student services officer.

Students who experience academic difficulties (see Satisfactory Academic Progress on page 48) may be limited in their selection of courses and the number of credits for which they may register.

AUDITING A COURSE

Auditing a course means that a student attends classes, but may not be required to submit assignments or take examinations. An auditor, therefore, receives neither a grade nor course credit. The auditing fee, however, is the same as it would be if the student was enrolled for credit. The decision to audit cannot be reversed.

Students should register for the course to be audited during the registration period, then complete an audit form, obtain the signature of the instructor and submit it to the Student Records Office. Audit status may be declared up through the twelfth week of class.

WITHDRAWAL

Withdrawal from a course for academic reasons must be initiated by a student prior to the twelfth week of the semester. The student must complete an official withdrawal form available from the Student Records Office.

After the twelfth week of class, withdrawals are granted for the following reasons:

Medical—for reasons of accidents or illness

Administrative—for unusual or unavoidable circumstances

After the twelfth week, withdrawal requires the approval of both the instructor and division dean.

If the instructor and division dean refuse to withdraw a student, a grade will be issued. The student may appeal the grade through the grade appeal process.

(NOTE: A student who stops attending classes for any reason should not expect the instructor to drop him or her. It is the student's responsibility to withdraw officially by completing a withdrawal form in the Student Records Office by the deadline date published in the class schedule. Failure to do so could result in an F grade).

CREDIT HOURS AND COURSE LOADS

FULL-TIME/PART-TIME STATUS

A student must take at least 12 semester hours to be considered a full-time student. Although the normal course load for a full-time student is 16 semester hours, a counselor or adviser may recommend a heavier or lighter load depending on ability and/or past performance. Permission from the division dean is necessary to enroll for more than 18 semester hours.

COURSE OVERLOAD

No student may carry in excess of 18 semester hours except with the written permission of the appropriate division dean.

GETTING CREDITS WITHOUT TAKING THE COURSE

CREDIT BY EXAMINATION

During the period of enrollment in a given course at Gaston College, a student may petition the course instructor and department chairperson for permission to seek course credit by examination. If both grant their permission, the department chairperson, upon the student's successful completion of the examination, will notify the division dean and the registrar of this outcome. Credit by examination is not permitted for courses numbered less than 100. No student may request credit by examination for more than eighteen credit hours. The student must be registered and have paid for the course for which the examination is requested.

Students who are considering CE must take the exam during the first 10 days of the semester.

Students who are on any type of financial aid should confer with the Financial Aid Office before attempting credit by exam.

Nursing and Emergency Medical Science students are exempt from the college's policy on maximum CE credits. Because of the nature of the program, many of these students will exceed the maximum of eighteen CEs allowed by the college policy.

To be entered in the student's record in a given semester, the examination must be completed during the first 10 days of the semester and the registrar must be notified in writing of the successful completion by the end of the third week of class.

The grade of CE will be earned by successful completion of the examination. The student may take the examination only once. Credits by examination will be applied toward graduation requirements. Quality points are not computed for the grade CE.

ADVANCED PLACEMENT

A student may be granted advanced placement by presenting scores on the College Board Advanced Placement Examination. Students with scores of 4 or 5 will be given college credit (but no academic grade) for beginning courses.

TRANSFERRING TO GASTON COLLEGE FROM ANOTHER COLLEGE

Students are eligible to transfer to Gaston College from accredited colleges and universities. Transfer students whose status with the institution last attended is other than “Good Standing” or whose accumulative grade point average is below the sliding scale used by Gaston College may be admitted on probation. If the transfer student is not eligible to return to the institution from which he wishes to transfer, he may be refused admission to Gaston College.

Gaston College accepts transfer credits from institutions of higher education which are accredited by the Southern Association of Colleges and Schools and other regional agencies recognized by the Council on Postsecondary Accreditation as described in the current edition of Transfer Credit Practices of Designated Educational Institutions published by the American Association of Collegiate Registrars and Admissions Officers. Transcripts will be evaluated by deans of the academic divisions for transfer credit. Transcripts will not be evaluated until the student has applied for admission to Gaston. The student should contact the Student Records Office to determine which credits accepted in transfer will apply toward the degree sought. This procedure is initiated in the Admissions Office. Some departments at Gaston College require an examination to validate transfer credit. These examinations are administered by the department or division involved.

TRANSFERRING TO ANOTHER COLLEGE FROM GASTON COLLEGE

Counselors and other members of the college staff will advise and assist any student planning to transfer to a four-year institution. However, it is the student’s responsibility to follow the admission requirements closely. These requirements are indicated in the particular institution’s catalog. Reference copies of various catalogs are available in the campus library and counseling offices.

Because of the highly specialized nature of courses in career programs, some courses are not designed for transfer to a four-year institution. Students also should note that courses with numbers 100 or lower usually do not transfer.

Students are strongly advised to see a counselor regularly if they are planning to transfer to a four-year college or university. Representatives from four-year colleges often visit the campus to help Gaston College students plan their transfer programs.

TRANSCRIPTS OF GRADES

Information on a student’s academic performance is available on each semester via direct mailings and transcript records.

Transcripts are sent only upon written request of the student. No transcript will be furnished for any student or alumnus who has a financial obligation to the college

such as unpaid fees or overdue library books. Transcripts may also be held for incomplete admission records. There is no fee for transcripts.

It is the policy of Gaston College NOT to issue transcripts of other colleges and schools. "Official Transcripts" will be mailed to other institutions by written request only.

TAKING CLASSES AT OTHER CHARLOTTE-AREA COLLEGES

Gaston College is a member of the Charlotte Area Educational Consortium which includes twelve other area colleges and universities. A cross-registration program provided by the consortium allows Gaston College students to take certain courses at other colleges if not available at Gaston. Information on cross-registration is available in the Student Records Office.

HOW THE GRADING SYSTEM WORKS

GRADE SYSTEM AND QUALITY POINTS

A final grade is the instructor's evaluation of the student's work and achievement throughout the course. Grades are given at the discretion of the instructor.

Once a grade has been submitted, it will not be changed except in the event of a clerical error or as a result of the appeal process. A student who has a question about a grade should consult the instructor. A student who believes a grade to be unfair may appeal to the instructor, followed by the department chair and divisional dean, if necessary. The division dean's approval is required for all grade changes.

Factors upon which the final grade may be based are attendance, recitation, written and oral quizzes, reports, papers, final examination, and other class activities. At the beginning of each course it is the responsibility of each instructor to notify students in writing the grading practices which will be used. The evaluation will be expressed according to the following letter system:

Grades	Quality Points
A Superior	4 per credit hour
B Above Average	3 per credit hour
C Average	2 per credit hour
D Lowest Passing Grade	1 per credit hour
F Failure	0 per credit hour
CE Credit by Examination Grade	0 per credit hour
I Incomplete	0 per credit hour
WA Withdrawal after the 20% date	0 per credit hour
WB Withdrawal before the 20% date	0 per credit hour
AU Audit	0 per credit hour
X No grade reported by instructor	0 per credit hour
S Satisfactory	0 per credit hour

U	Unsatisfactory	0 per credit hour
TR	Transferred from another school or university	0 per credit hour

Grades preceded by an “R” on the grade report indicate the course has been repeated.

WHAT THE GRADES MEAN

F Grades—the grade F is recorded if the student has failed on the combined evaluation of work through the semester.

CE Grade—During the period of enrollment in a given course at Gaston College, a student may petition the course instructor and department chairperson for permission to seek course credit by examination. Credit by examination is not permitted for courses numbered less than 100. No student may request credit by examination for more than eighteen credit hours. (NOTE: LPN-RN and EMS students are exempt from the college’s policy on maximum CE credits. Because of the nature of these programs, many of these students will exceed the maximum of eighteen CEs allowed by the college policy.)

The grade of CE will be earned by successful completion of the credit by examination and entered in the student’s record. The student may take the examination only once. Credit by examination will be applied toward graduation requirements. Quality points are not computed for the grade CE.

TR Grade—The TR grade is assigned to credits accepted in transfer or other credits granted. The grade authorizes credit without further qualification of student performance. The TR grade does not affect a student’s grade-point average in any way and is not used in determining whether a student qualifies to graduate with academic honors.

I Grade—When a student has failed to complete the requirements of a course, the student may be given an “Incomplete” or “I” grade. To be awarded this grade, the student must present to the instructor valid reasons for not having completed the course requirements. The instructor and the student then complete an Incomplete Grade Agreement form. This agreement will determine the requirements for a course grade which must be completed by the twelfth week of the next semester. The grade “I” is not computed into the grade point average until it is replaced by a permanent grade. If the incomplete is not removed by the twelfth week of the semester, an F will be assigned.

WA/WB Mark—A student who wishes to withdraw from a course or courses within the first twelve weeks of the semester may do so without the credit hours being computed as hours attempted.

Withdrawal from a course or courses after twelve weeks for other than an appropriate cause determined by medical, or unusual or unavoidable circumstances shall be counted as a grade earned and computed in the grade-point average.

The mark WA/WB indicates that student withdrew from the course within the first twelve weeks or at a later date for appropriate cause.

A student wishing to withdraw from a course or courses must follow the official procedure which is initiated in the Student Records Office.

AU Mark—Students who wish to audit courses (See “Auditing a Course”) must follow the regular registration procedures and declare the audit status to the course instructor. A student who registers for an audit may not receive a grade for the course. The fees are the same as for regular college credit. The decision to audit cannot be reversed.

S Mark—S indicates satisfactory progress toward the completion of course work involving individually guided study, internship, externships, and independent study. When the work has been concluded, the S is changed to a regular letter grade and computed accordingly. The “S” progress grade allows a student in an individualized instruction course, who has attended regularly and made satisfactory progress, to continue the course in a subsequent semester until all the course requirements are met. The student must re-register for the course in the subsequent semester. The hours credit and hours attempted will not be given until the first semester the student enrolls in an individualized course. Exceptions to continue the “S” into a third semester must have written permission of the instructor and the division dean. (See also “Satisfactory Academic Progress”).

A grade of “S” may be awarded to veterans or to veteran’s dependents receiving VA educational benefits.

GRADE POINT AVERAGE (GPA)

Each letter grade has a point value. A student may determine the grade points for each course by multiplying the number of points a grade is worth times the number of credits the course carries. Thus a “B” (worth 3 points) in a 3 credit course is worth 9 grade points and an “A” (worth 4 points) in the same 3 credit course is worth 12 grade points. (See “Grade Symbols” on page 46.)

The grade point average is found by adding the total grade-point values for all course and dividing by the total number of credits attempted during the same period of time.

Only course work taken at Gaston College is used in computing grade-point averages.

Advanced placement credits, credits transferred from accredited institutions, and credit for courses taken on a satisfactory/unsatisfactory basis are not used in computing a student’s grade point average but may be accepted toward a degree.

SATISFACTORY ACADEMIC PROGRESS

Satisfactory academic progress is determined by examining the ratio of quality points to credit hours attempted. Quality points averages are computed by dividing the total number of quality points earned by the total number of credit hours attempted. A grade point average of 2.0 or higher is required for graduation.

REPEATING A COURSE

A student may repeat a course taken at Gaston College in order to improve the cumulative grade point average. Credit is given for the highest grade earned when repeating a course. Repeated courses will appear on the student’s transcript. All course

attempts will be shown, but the cumulative grade point average will be computed again to count only the course with the highest grade. Upon completion of the repeated course the student must notify the Student Records Office.

Specific requirements for repeating a course:

1. A student may repeat a course for credit or audit or a combination of the two no more than three times within a five year period.
2. A student may repeat a course when a S mark is awarded no more than four times within a five year period.
3. A student may not re-enroll for a course in which credit by examination (CE) has been awarded.
4. A student may not re-enroll for a course in which an incomplete (I) has been awarded until that I is removed.
5. A student who is awarded a withdrawal (WB) before the 20 percent date will not be considered as repeating.

ACADEMIC ALERT

Any student who maintains less than a 2.00 grade point average is placed on academic alert. A student on academic alert must meet with his/her assigned adviser no later than the end of the drop/add period of the current semester to develop a plan for removing the alert status.

If after two successive semesters the academic alert status has not been removed, the student will be placed on academic suspension and will not be allowed to re-enroll for one semester.

During the suspension period, the student is encouraged to meet with a counselor or adviser. If the student chooses another program, a change of program form must be initiated by the student. A student must petition the divisional dean for re-enrollment in the same program or meet with an adviser to complete a major change program for a new program of study.

GROUND FOR STUDENT DISMISSAL

Academic standards and compliance with accreditation and legal requirements are maintained, in part, through regulations and policies related to student behavior both in and out of the classroom, i.e., matriculation for scholarly pursuit and citizenship. The college has the right to dismiss a student in violation of regulations or policies.

A student may be dismissed from a course or a program under academic regulations or from the college for violations of citizenship regulations.

Dismissal from Gaston College for academic reasons may be initiated by a faculty member, chairperson, divisional dean, or the student's adviser upon petition to the Vice President for Student Affairs.

Academic dismissal based upon the concept of "Satisfactory Progress" in a specific course or program is stated in terms of minimum grades, completion of course sequences, and the achievement of certain knowledges, skills, and abilities.

Reinstatement of a dismissed student is possible only by permission of the Vice President for Student Affairs. Note: Dismissal is to be distinguished from academic alert. Academic alert is a temporary sanction administered by the student's adviser or the department chairperson in terms of a "Satisfactory Progress" statement. That department chairperson establishes the condition of the alert, i.e., duration, remediation, proficiency demonstration. Appeal of a alert is presented to the Vice President for Academic Affairs by the divisional dean.

DISMISSAL FROM AN OCCUPATIONAL PROGRAM

If the department chairperson determines that a student is not a safe and dependable practitioner in the lab, shop, clinic or field area in the progress of a course, then the student may be dismissed from the program with the concurrence of the Vice President for Academic Affairs through the due process procedure.

Due to the fact that certain courses of many occupational programs are prescribed in a one or two-year sequential pattern and are offered only once during the sequence, a student has no opportunity to repeat one of these courses or to elect a substitute course. Therefore, a student who fails one of these courses will be dismissed from the program at the end of the semester in which the failure occurs.

Students dismissed from an occupational program under this policy may petition for enrollment in a later class.

HONORS LIST

PRESIDENTS LIST

The President's List is an honor roll for students attaining a grade-point average of 4.00 on twelve or more hours of work (not including CE credits) in any given semester and with no withdrawals or incompletes being recorded.

DEANS LIST

In order to qualify for the Dean's List, a student must take a minimum course load of no fewer than twelve quarter hours (not including CE credit), and maintain at least a 3.50 average with no grade lower than a B and with no withdrawals or incompletes being recorded.

HONORS LIST

The Honors List is a honor roll for part-time students attaining a grade-point average of 3.5 on eight to eleven credit hours of work (not including CE credit) in any given semester and with no withdrawals or incompletes being recorded.

GRADUATION

Requirements for the degree, diploma or certificate will vary according to the curriculum. Students should refer to their particular program requirements.

At least 30 credit hours for an associate degree or diploma must be completed in attendance at Gaston College.

Courses numbered less than 100 do not count for graduation credit.

GRADUATION PROCEDURES

Students are expected to file graduation applications with the Student Records Office. Commencement exercises to award degrees and diplomas to students in respective divisions are at the conclusion of the spring and summer semesters. A graduation fee of \$15.00 is charged to each graduation student. The specific date of the commencement exercise is listed in the college calendar in front of this catalog.

GRADUATION WITH HONORS

Gaston College recognizes excellent scholarship by designating the status of "Honor" or "High Honor" to selected graduates receiving associate degrees or diplomas. To be eligible for graduation with "Honor," a student must have a grade-point average of 3.50 or above but below 3.80 on all work presented for graduation.

To be eligible for graduation with "High Honor," a student must have a grade-point average of 3.80 or above on all work presented for graduation.

GRADUATION MARSHALS

Twenty rising sophomores who have attempted 36-50 credit hours at Gaston College and who have maintained the highest scholastic averages during their freshman year are honored by being asked to serve as graduation marshals. The marshal who has earned the highest academic record is designated chief marshal.

[Faint, illegible text, likely bleed-through from the reverse side of the page]

Student Services

COLLEGE BOOKSTORE

The College Bookstore is located on the first floor of the Myers Center. It provides books, study aids, supplies, and imprinted apparel as a service to its students, faculty and staff. The bookstore also carries greeting cards, candy and snacks. The goal of the bookstore is to support the academic and administrative mission of Gaston College.

*With the exception of holidays, the bookstore is open Monday through Thursday, 8:00 am-7:00 pm; Friday, 8:00 am-4:00 pm. When class is not in session, the bookstore hours are 8:00 am-4:00 pm.

*Textbooks are also available at the Lincolnton Campus site (LC) at the beginning of each term. Titles available at the LC location are limited to the courses taught at that site. For the bookstore hours at the LC site please call (704) 922-6400.

*Used books in good condition are bought by the bookstore the last two days of each term during the regular hours of operation.

*Returns Policy—Textbook refunds will be given on the following schedule:

First ten days of class	—	Full Refund
Third week	—	Half Refund
Fourth week	—	Quarter Refund

All returns must be accompanied by a cash receipt and purchased for the current term. (No exceptions) Textbooks must be unmarked and in re-saleable condition.

COLLEGE RADIO STATION

Gaston College radio station WSGE (91.7 FM), with studios and transmitter on campus, signed on the air in October 1980. The station offers educational, instructional and entertainment programming to an area that includes over 2.6 million people. WSGE is operated by the Broadcasting Department of Gaston College and uses the talents of students and volunteers.

COUNSELING AND CAREER DEVELOPMENT CENTER

The Counseling and Career Development Center provides two major services to Gaston College students: counseling and job placement. The Center is located on the second floor of the Myers Center.

COUNSELING

The counseling staff provides professional guidance and counseling services. After completing admission requirements, each student is invited to visit a member of the counseling staff. The counselors offer assistance in choosing an appropriate program of study. Thereafter, it is recommended that students meet with a counselor or adviser on a regular basis to review plans and progress.

Some of the counseling services provided are personal counseling, career and academic advisement, assessment (achievement, aptitude, career, interest, personality, self-directed search, values inventory), college transfer information, student activities information, tutorial services, academic placement testing (ACT, ASSET, and SAT).

STUDENT EMPLOYMENT SERVICES

Student Employment Services assists students and alumni who are seeking employment by making them aware of the range of career opportunities available, helping them present themselves effectively as candidates, and aiding them in finding part-time, full-time, temporary, and summer employment.

Some of the specific services offered are: Career Day; employer campus visits; resume writing information/workshops; interview techniques information/workshops; and posting of part-time, full-time, and temporary job openings on the bulletin board outside the Myers Center cafeteria and in the Student Employment Office.

EARLY CHILDHOOD DEVELOPMENT CENTER/SUMMER CAMP

The Early Childhood Development Center on the campus of Gaston College provides year-round child care in a creative learning environment for children ages six weeks to five years. In addition, Summer Camp is offered for school-aged children in June, July, and August. Children of faculty, staff, students, and the community are accepted and enrolled according to the date of application and availability of space. The center is open Monday through Thursday, 7:30 a.m. to 10:00 p.m., and Friday, 7:30 a.m. to 5:30 p.m.

FOOD SERVICE

Food service is available in the cafeteria on the first floor of the Myers Center. Hot meals are available from 7:30 a.m. through 1:30 p.m., Monday through Friday. Vending machines are located throughout the campus.

HOUSING

Gaston College is a commuter institution designed to serve residents of the surrounding area and does not provide housing for its students.

STUDENT ACTIVITIES

Gaston College recognizes the value of student activities. The college provides a well-balanced program developed in response to student requests and needs.

A large measure of responsibility for campus affairs is in the hands of the students advised by the chief student services officer and faculty members. The students plan

and present many co-curricular campus activities. Activities may vary from semester to semester depending upon student choice.

Participation in college governance by students may include membership on numerous college and campus committees including college committees on curriculum, degree requirements, and academic calendar; affirmative action and campus grievance programs.

Among the many activities and organizations at Gaston College campus each semester are

- Bands
- Dances and other social functions
- Interest groups
- Intramural-extramural sports
- Political clubs
- Professional organizations
- Religious groups
- Student Government Association

More information about student activities is available in the Office of the Chief Student Services Officer.

STUDENT IDENTIFICATION CARD

Each student is requested to have a Gaston College identification (ID) card. It is required for registration activities, for library checkout, and for admittance to athletic and social events.

Each student will receive a Gaston College ID card. The Gaston College ID card is non-transferable and is void unless it is signed by the student and validated for the current term.

Loss or theft of a Gaston College ID card should be reported within 24 hours to the chief student services officer. The cost for a replacement ID card is \$1.00.

Degree Programs

ASSOCIATE IN ARTS

(A10100)-This program is subject to change.

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 approved college transfer courses. Within the degree program, the college shall include opportunities for the achievement of competence in reading, writing, oral communications, fundamental mathematical skills, and the basic use of computers.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses (44SHC)*						
ENGLISH COMPOSITION (6 SHC)						
ENG	111	Expository Writing	3	0	0	3
ENG	112	Arg.-Based Research	3	0	0	3
HUMANITIES/FINE ARTS (12 SCH)						
Select four courses from at least three of the following discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. At least one course must be a literature course.						
ART						
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
ENGLISH						
ENG	114	Prof. Research & Report	3	0	0	3
ENG	131	Intro to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
FOREIGN LANGUAGES						
FRE	111	Elem. French I	3	0	0	3
FRE	112	Elem. French II	3	0	0	3
FRE	141	Culture and Civilization	3	0	0	3
FRE	151	Francophone Literature	3	0	0	3
FRE	161	Cultural Immersion	2	3	0	3
SPA	111	Elem. Spanish I	3	0	0	3
SPA	112	Elem. Spanish II	3	0	0	3
SPA	141	Culture and Civilization	3	0	0	3
SPA	151	Hispanic Literature	3	0	0	3
SPA	161	Cultural Immersion	2	3	0	3
MUSIC						
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Intro. To Jazz	3	0	0	3
MUS	113	American Music	3	0	0	3
MUS	271	Music History I	3	0	0	3
MUS	272	Music History II	3	0	0	3

PHILOSOPHY

PHI	210	History of Philosophy	3	0	0	0	3
PHI	215	Philosophical Issues	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	240	Intro to Ethics	3	0	0	0	3

RELIGION

REL	110	World Religion	3	0	0	0	3
REL	111	Eastern Religion	3	0	0	0	3
REL	112	Western Religion	3	0	0	0	3
REL	198	Seminar in Religion	3	0	0	0	3
REL	211	Intro to Old Testament	3	0	0	0	3
REL	212	Intro to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3

SOCIAL/BEHAVIORAL SCIENCES (12 SHC)

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

ANTHROPOLOGY

ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3
ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	240	Archaeology	3	0	0	0	3

HISTORY

HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	114	Comparative World History	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3

POLITICAL SCIENCE

POL	110	Intro Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3

PSYCHOLOGY

PSY	150	General Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Dev. Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3

SOCIOLOGY

SOC	210	Sociology of the Family	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3

GEOGRAPHY

GEO	111	World Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC): Select two courses, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (6 SHC): Select at least one course in introductory mathematics (college algebra, trigonometry, calculus, etc.); the other unit may be selected from among other quantitative subjects, such as computer science and statistics.

BIOLOGY

BIO	110	Principals of Biology	3	3	0	0	4
BIO	111	General Biology I	3	3	0	0	4
BIO	112	General Biology II	3	3	0	0	4
BIO	120	Introductory Botany	3	3	0	0	4
BIO	130	Introductory Zoology	3	3	0	0	4
BIO	140	Environmental Biology	3	0	0	0	3
BIO	140A	Env. Biology Lab	0	3	0	0	1

CHEMISTRY

CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4

GEOLOGY

GEL	111	Introductory Geology	3	2	0	0	4
-----	-----	----------------------	---	---	---	---	---

MATHEMATICS**(SELECT ONE FROM THIS SERIES)**

MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
MAT	171	Precalculus Algebra	3	0	0	0	3
MAT	171A	Precalculus Algebra Lab	0	2	0	0	1

AND**(ONE FROM THIS SERIES)**

CIS	115	Intro to Prog. & Logic	2	2	0	0	3
MAT	162	College Trig.	3	0	0	0	3
MAT	162A	College Trig. Lab	0	2	0	0	1
MAT	172	Precalculus Trig.	3	0	0	0	3
MAT	172A	Precalculus Trig. Lab	0	2	0	0	1
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1

PHYSICS

PHY	151	College Physics I	3	2	0	0	4
PHY	152	College Physics II	3	2	0	0	4
PHY	251	General Physics I	4	3	0	0	5
PHY	252	General Physics II	3	3	0	0	4

*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.

OTHER REQUIRED HOURS (20-21 SHC)*

Must include additional general education and professional courses which have been approved for transfer. Courses in health, physical education, and Reading 111 or Humanities 115 may be included.

*Co-requisite math labs are included.

Total Semester Hours Credit:

64

Program requirements are subject to further change during this semester transition period.

ASSOCIATE IN FINE ARTS

(A10200)-This program is subject to change.

The Associate in Fine Arts degree shall be granted for planned programs of study consisting of a minimum of 64 and a maximum of 65 semester hours of approved college transfer courses. Within the degree program, the college shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses (28SHC)*							
ENGLISH COMPOSITION (6 SHC)							
ENG	111	Expository Writing	3	0	0	0	3
ENG	112	Arg.-Based Research	3	0	0	0	3
HUMANITIES/FINE ARTS (6 SCH**)							
(Select two courses from at least two of the following discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. At least one course must be a literature course.)							
ART							
ART	111	Art Appreciation	3	0	0	0	3
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3
ENGLISH							
ENG	114	Prof. Research & Report	3	0	0	0	3
ENG	131	Intro to Literature	3	0	0	0	3
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3
ENG	241	British Literature I	3	0	0	0	3
ENG	242	British Literature II	3	0	0	0	3
FOREIGN LANGUAGES							
FRE	111	Elem. French I	3	0	0	0	3
FRE	112	Elem. French II	3	0	0	0	3
FRE	141	Culture and Civilization	3	0	0	0	3
FRE	151	Francophone Literature	3	0	0	0	3
FRE	161	Cultural Immersion	2	3	0	0	3
SPA	111	Elem. Spanish I	3	0	0	0	3
SPA	112	Elem. Spanish II	3	0	0	0	3
SPA	141	Culture and Civilization	3	0	0	0	3
SPA	151	Hispanic Literature	3	0	0	0	3
SPA	161	Cultural Immersion	2	3	0	0	3
MUSIC							
MUS	110	Music Appreciation	3	0	0	0	3
MUS	112	Intro. To Jazz	3	0	0	0	3
MUS	113	American Music	3	0	0	0	3
MUS	271	Music History I	3	0	0	0	3
MUS	272	Music History II	3	0	0	0	3

PHILOSOPHY

PHI	210	History of Philosophy	3	0	0	0	3
PHI	215	Philosophical Issues	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	240	Intro to Ethics	3	0	0	0	3

RELIGION

REL	110	World Religion	3	0	0	0	3
REL	111	Eastern Religion	3	0	0	0	3
REL	112	Western Religion	3	0	0	0	3
REL	198	Seminar in Religion	3	0	0	0	3
REL	211	Intro to Old Testament	3	0	0	0	3
REL	212	Intro to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3

SOCIAL/BEHAVIORAL SCIENCES (9 SHC)

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

ANTHROPOLOGY

ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3
ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	240	Archaeology	3	0	0	0	3

HISTORY

HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	114	Comparative World History	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3

POLITICAL SCIENCE

POL	110	Intro Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3

PSYCHOLOGY

PSY	150	General Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Dev. Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3

SOCIOLOGY

SOC	210	Intro to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3

GEOGRAPHY

GEO	111	World Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3

Natural Sciences/Mathematics (7 SHC)

Natural Sciences (4 SHC): Select one course, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (3 SHC): Select one course in introductory mathematics (college algebra, trigonometry, calculus, etc.).

BIOLOGY

BIO	110	Principles of Biology	3	3	0	0	4
BIO	111	General Biology I	3	3	0	0	4
BIO	112	General Biology II	3	3	0	0	4
BIO	120	Introductory Botany	3	3	0	0	4
BIO	130	Introductory Zoology	3	3	0	0	4
BIO	140	Environmental Biology	3	0	0	0	3
BIO	140A	Env. Biology Lab	0	3	0	0	1

CHEMISTRY

CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4

GEOLOGY

GEL	111	Introductory Geology	3	2	0	0	4
-----	-----	----------------------	---	---	---	---	---

PHYSICS

PHY	151	College Physics I	3	2	0	0	4
PHY	251	General Physics I	4	3	0	0	5

MATHEMATICS**SELECT ONE FROM THIS SERIES.**

MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
MAT	162	College Trig.	3	0	0	0	3
MAT	162 A	College Trig. Lab	0	2	0	0	1
MAT	171	Precalculus Algebra	3	0	0	0	3
MAT	171A	Precalculus Algebra Lab	0	2	0	0	1
MAT	172	Precalculus Trig.	3	0	0	0	3
MAT	172A	Precalculus Trig. Lab	0	2	0	0	1
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1

*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.

OTHER REQUIRED HOURS (36-37 SHC)*

Courses in health, physical education, college orientation, Reading 111 or Humanities 115 may be included. Up to 1 hour work experience may be included for career exploration.

*Co-requisite math labs are included.

MAJOR CORE REQUIREMENTS:

Major course requirements will be determined on a program-by-program basis by articulation agreements developed under the Comprehensive Articulation Agreement, whenever possible and appropriate.

Total Semester Hours Credit:

64

Program requirements are subject to further change during this semester transition period.

ASSOCIATE IN SCIENCE

(A10400)-This program is subject to change.

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 approved college transfer courses. Within the degree program, the college shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses (44SHC)*						
ENGLISH COMPOSITION (6SHC)						
ENG	111	Expository Writing	3	0	0	3
ENG	112	Arg.-Based Research	3	0	0	3
HUMANITIES/FINE ARTS (12 SCH)						
Select four courses from at least three of the following discipline areas: music, art drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy, and religion. At least one course must be a literature course.						
ART						
ART	111	Art Appreciation	3	0	0	3
ART	114	Art History Survey I	3	0	0	3
ART	115	Art History Survey II	3	0	0	3
ENGLISH						
ENG	114	Prof. Research & Report	3	0	0	3
ENG	131	Intro to Literature	3	0	0	3
ENG	231	American Literature I	3	0	0	3
ENG	232	American Literature II	3	0	0	3
ENG	241	British Literature I	3	0	0	3
ENG	242	British Literature II	3	0	0	3
FOREIGN LANGUAGES						
FRE	111	Elem. French I	3	0	0	3
FRE	112	Elem. French II	3	0	0	3
FRE	141	Culture and Civilization	3	0	0	3
FRE	151	Francophone Literature	3	0	0	3
FRE	161	Cultural Immersion	2	3	0	3
SPA	111	Elem. Spanish I	3	0	0	3
SPA	112	Elem. Spanish II	3	0	0	3
SPA	141	Culture and Civilization	3	0	0	3
SPA	151	Hispanic Literature	3	0	0	3
SPA	161	Cultural Immersion	2	3	0	3
MUSIC						
MUS	110	Music Appreciation	3	0	0	3
MUS	112	Intro. To Jazz	3	0	0	3
MUS	113	American Music	3	0	0	3
MUS	271	Music History I	3	0	0	3
MUS	272	Music History II	3	0	0	3

PHILOSOPHY

PHI	210	History of Philosophy	3	0	0	0	3
PHI	215	Philosophical Issues	3	0	0	0	3
PHI	220	Western Philosophy I	3	0	0	0	3
PHI	221	Western Philosophy II	3	0	0	0	3
PHI	240	Intro to Ethics	3	0	0	0	3

RELIGION

REL	110	World Religion	3	0	0	0	3
REL	111	Eastern Religion	3	0	0	0	3
REL	112	Western Religion	3	0	0	0	3
REL	198	Seminar in Religion	3	0	0	0	3
REL	211	Intro to Old Testament	3	0	0	0	3
REL	212	Intro to New Testament	3	0	0	0	3
REL	221	Religion in America	3	0	0	0	3

SOCIAL/BEHAVIORAL SCIENCES (12 SHC)

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

ANTHROPOLOGY

ANT	210	General Anthropology	3	0	0	0	3
ANT	220	Cultural Anthropology	3	0	0	0	3
ANT	221	Comparative Cultures	3	0	0	0	3
ANT	230	Physical Anthropology	3	0	0	0	3
ANT	240	Archaeology	3	0	0	0	3

HISTORY

HIS	111	World Civilizations I	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
HIS	114	Comparative World History	3	0	0	0	3
HIS	131	American History I	3	0	0	0	3
HIS	132	American History II	3	0	0	0	3

POLITICAL SCIENCE

POL	110	Intro Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	210	Comparative Government	3	0	0	0	3
POL	220	International Relations	3	0	0	0	3

PSYCHOLOGY

PSY	150	General Psychology	3	0	0	0	3
PSY	239	Psychology of Personality	3	0	0	0	3
PSY	241	Dev. Psychology	3	0	0	0	3
PSY	281	Abnormal Psychology	3	0	0	0	3

SOCIOLOGY

SOC	210	Intro. to Sociology	3	0	0	0	3
SOC	213	Sociology of the Family	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3
SOC	225	Social Diversity	3	0	0	0	3
SOC	240	Social Psychology	3	0	0	0	3

GEOGRAPHY

GEO	111	World Geography	3	0	0	0	3
GEO	112	Cultural Geography	3	0	0	0	3

Natural Sciences/Mathematics (14 SHC)

Natural Sciences (8 SHC): Select two courses, including accompanying laboratory work, from among the biological and physical science disciplines.

Mathematics (6 SHC): Select at least one course in introductory mathematics (college algebra, trigonometry, calculus, etc.); the other unit may be selected from among other quantitative subjects, such as computer science and statistics.

BIOLOGY

BIO	110	Principals of Biology	3	3	0	0	4
BIO	120	Introductory Botany	3	3	0	0	4
BIO	130	Introductory Zoology	3	3	0	0	4
BIO	140	Environmental Biology	3	3	0	0	4
BIO	140A	Env. Biology Lab	0	3	0	0	1

CHEMISTRY

CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4

GEOLOGY

GEL	111	Introductory Geology	3	2	0	0	4
-----	-----	----------------------	---	---	---	---	---

MATHEMATICS**(SELECT ONE FROM THIS SERIES)**

MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
MAT	171	Precalculus Algebra	3	0	0	0	3
MAT	171A	Precalculus Algebra	0	2	0	0	1

AND**(ONE FROM THIS SERIES)**

CIS	115	Intro to Prog. & Logic	2	2	0	0	3
MAT	162	College Trig.	3	0	0	0	3
MAT	162A	College Trig. Lab	0	2	0	0	1
MAT	172	Precalculus Trig.	3	0	0	0	3
MAT	172A	Precalculus Trig. Lab	0	2	0	0	1
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1

PHYSICS

PHY	151	College Physics I	3	2	0	0	4
PHY	152	College Physics II	3	2	0	0	4
PHY	251	General Physics I	4	3	0	0	5
PHY	252	General Physics II	3	3	0	0	4

*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.

OTHER REQUIRED HOURS (20-21 SHC)*

Must include a minimum of 14 SHC in mathematics and/or science and professional courses which have been approved for transfer. Courses in health, physical education, and Reading 111 or Humanities 115 may be included.

*Co-requisite math labs are included.

Total Semester Hours Credit:

64

Program requirements are subject to further change during this semester transition period.

ACCOUNTING

Associate In Applied Science Degree

(A25100)-This program is subject to change

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, and ethics.

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

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111	Expository Writing	3	0	0	3
ENG	114	Prof Research & Report	3	0	0	3
		Humanities Elective**	3	0	0	3
		Social Science Elective*	3	0	0	3
		Math Elective (MAT 110 or higher)*	3	0	0	3
Major Courses						
ACC	120	Principles of Accounting I	3	2	0	4
BUS	115	Business Law	3	0	0	3
ACC	121	Principles of Accounting II	3	2	0	4
ACC	220	Intermediate Accounting I	3	2	0	4
ACC	129	Individual Income Taxes	2	2	0	3
ACC	221	Intermediate Accounting II	3	2	0	4
ACC	225	Cost Accounting	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ECO	151	Survey of Economics OR	3	0	0	3
ECO	251	Microeconomics*	3	0	0	3
ACC	130	Business Income Taxes	2	2	0	3
ACC	149	Intro to Acc. Spreadsheet	3	0	0	3
ACC	150	Comp. General Ledger	1	2	0	2
ACC	151	Acc. Spreadsheet Apps.	1	2	0	2
ACC	226	Managerial Accounting	3	0	0	3
ACC	269	Auditing	3	0	0	3
BUS	116	Business Law II	3	0	0	3
BUS	225	Business Finance	2	2	0	3
		Total Semester Hours Credit:				68

* Students who are planning to transfer to a four-year program should take ECO 252- Principles of Macroeconomics as their Social Science Elective and MAT 161 College Algebra as their Mathematics Elective.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

ARCHITECTURAL TECHNOLOGY

Associate In Applied Science Degree

(A40100)-This program is subject to change.

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications. They also complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions, as well as in industry and government. At participating universities, graduates may continue their education toward a bachelor's degree in related fields.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof. Research & Report	3	0	0	0	3
		Humanities Elective	3	0	0	0	3
		Social Science Elective	3	0	0	0	3
MAT	121	Algebra & Trigonometry	2	2	0	0	3
Major Courses							
ARC	111	Intro to Arch Technology	1	6	0	0	3
ARC	112	Constr. Materials/Methods	3	2	0	0	4
ARC	113	Residential Arch Tech	1	6	0	0	3
ARC	114	Architectural CAD	1	3	0	0	2
ARC	131	Building Codes/Laws	2	2	0	0	3
ARC	141	Elm Structures for Arch	4	0	0	0	4
ARC	211	Light Construction Tech	1	6	0	0	3
ARC	213	Design Project	2	6	0	0	4
ARC	220	Advanced Arch CAD	1	3	0	0	2
ARC	221	Architectural 3D CAD	1	4	0	0	3
ARC	230	Environmental Systems	3	3	0	0	4
CIS	111	Basic PC Literacy	1	2	0	0	2
ERG	115	Inter to Technology	2	6	0	0	4
SRV	110	Surveying I	2	6	0	0	4
SRV	111	Surveying II	2	6	0	0	4
*Select 2 SHC from the following courses:							
ARC	119	Structural Drafting	2	2	0	0	3
COE	111	Co-Op I	0	0	0	10	1
COE	112	Co-op III	0	0	0	10	1
COE	121	Co-Op I	0	0	0	20	2
Total Semester Hour Credits:							67

Program requirements are subject to further change during this transition period.

AUTOMOTIVE SYSTEMS TECHNOLOGY

Associate In Applied Science Degree

(A60160)-This program is subject to change.

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing, and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive-trains.

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

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	101	Applied Communications I	3	0	0	0	3
MAT	101	Applied Mathematics	2	2	0	0	3
Major Courses							
AUT	110	Intro to Auto Technology	2	2	0	0	3
AUT	115	Engine Fundamentals	2	3	0	0	3
AUT	116	Engine Repair	1	3	0	0	2
AUT	141	Suspension /Steering Sys	2	4	0	0	4
AUT	151	Brake Systems	2	2	0	0	3
AUT	152	Brake Systems Lab	0	2	0	0	1
AUT	161	Electrical Systems	2	6	0	0	4
AUT	164	Automotive Electronics	2	3	0	0	3
AUT	171	Heat and Air Condition	2	3	0	0	3
AUT	183	Engine Perform-Fuels	2	3	0	0	3
AUT	184	Engine Perform Fuels-Lab	0	3	0	0	1
AUT	185	Emission Controls.	1	2	0	0	2
AUT	231	Manual Drive Trains/Axles	2	3	0	0	3
AUT	232	Man Drive Trains/Axles-L	0	3	0	0	1
Select 6 SHC from the following courses:							
AUT	113	Automotive Servicing	2	6	0	0	4
AUT	186	Automotive Computer Appl.	1	2	0	0	2
COE	112	Co-Op Experience I	0	20	0	0	2
COE	122	Co-Op Experience II	0	20	0	0	2
COE	132	Co-Op Experience III	0	20	0	0	2
Total Semester Hours Credit:							68

Program requirements are subject to further change during this transition period.

BROADCASTING PRODUCTION TECHNOLOGY

Associate in Applied Broadcasting Production Technology

(A30120)-This program is subject to change.

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

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

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

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
MUS	110	Music Appreciation	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
Select one of the following:							
MAT	145	Analytical Math or	3	0	0	0	3
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
Major Courses							
BPT	110	Intro to Broadcasting	3	0	0	0	3
BPT	111	Broadcast Law & Ethics	3	0	0	0	3
BPT	112	Broadcast Writing	3	2	0	0	4
BPT	113	Broadcast Sales	3	0	0	0	3
BPT	115	Public Relations	3	0	0	0	3
BPT	121	Broadcast Speech I	2	3	0	0	3
BPT	131	Audio/Radio Production I	2	6	0	0	4
BPT	140	Intro to TV Systems	2	0	0	0	2
BPT	210	Broadcast Management	3	0	0	0	3
BPT	215	Broadcast Programming	3	0	0	0	3
BPT	231	Video/TV Production I	2	6	0	0	4
BPT	235	TV Performance I	0	6	0	0	2
BPT	241	Broadcast Journalism I	3	2	0	0	4
BPT	250	Institutional Video	2	3	0	0	3
BPT	255	Computer-Based Prod.	2	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
Other Required Courses							
COE	112	Co-op Work Experience I	0	0	0	20	2
Total Semester Hours Credit:							67

Program requirements are subject to further change during this semester transition period.

BUSINESS ADMINISTRATION

Associate In Applied Science Degree

(A25120)-This program is subject to change.

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 and processes and an understanding of business organizations in today's global economy.

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

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and business and industry.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111	Expository Writing	3	0	0	3
ENG	114	Prof Research & Report	3	0	0	3
		Humanities Elective**	3	0	0	3
		Social Science Elective*	3	0	0	3
		Math Elective (MAT 110 or higher)*	3	0	0	3
Major Courses						
ACC	120	Principles of Accounting I	3	2	0	4
BUS	137	Principles of Management	3	0	0	3
ECO	151	Survey of Economics OR	3	0	0	3
ECO	251	Microeconomics*	3	0	0	3
MKT	120	Principles of Marketing	3	0	0	3
BUS	115	Business Law I	3	0	0	3
ACC	121	Principles of Accounting II	3	2	0	4
ACC	149	Intro to Acc. Spreadsheet	3	0	0	3
ACC	226	Managerial Accounting	3	0	0	3
BUS	110	Introduction to Business	3	0	0	3
BUS	116	Business Law II	3	0	0	3
BUS	121	Business Math	2	2	0	3
BUS	125	Personal Finance	3	0	0	3
BUS	225	Business Finance	2	2	0	3
BUS	238	Integrated Management	3	0	0	3
BUS	239	Business Apps. Seminar	1	2	0	2
BUS	255	Org Behavior in Business	3	0	0	3
CIS	110	Introduction to computers	2	2	0	3

Electives (Select 6 hours)

ACC	129	Individual Income Taxes	2	2	0	0	3
ACC	151	Acc. Spreadsheet Apps.	1	2	0	0	2
BUS	228	Business Statistics	2	2	0	0	3
BUS	230	Small Business Mgt.	3	0	0	0	3
BUS	237	Current Mgt. Issues	2	0	0	0	2
MKT	220	Advertising & Sales Pro.	3	0	0	0	3
COE	111	Work Experience I	0	0	0	10	1
COE	121	Work Experience II	0	0	0	10	1
COE	131	Work Experience III	0	0	0	10	1
COE	112	Work Experience I	0	0	0	20	2
COE	122	Work Experience II	0	0	0	20	2
COE	132	Work Experience III	0	0	0	20	2
Total Semester Hours Credit:							73

* Students who are planning to transfer to a four-year program should take ECO 252- Principles of Macroeconomics as their Social Science Elective and MAT 161 College Algebra as their Mathematics Elective. Transfer students are advised to take BUS 228—Business Statistics as an Elective.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

CIVIL ENGINEERING TECHNOLOGY

Associate In Applied Science Degree

(A40140)-This program is subject to change.

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the construction of transportation systems, residential and commercial buildings, bridges, dams, and water and wastewater treatment systems.

Coursework includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional coursework will cover the operation of computers and application software, including computer-aided drafting.

Graduates should qualify for technician level jobs with both public and private engineering, construction, and surveying agencies.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.

This program can be completed using a day sequence.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Humanities/Fine Arts Elective	3	0	0	0	3
		Social/Behavioral Science Elective	3	0	0	0	3
Major Courses							
CIS	111	Basic PC Literacy	1	2	0	0	2
CIV	110	Statics/Strength of Mtls	2	6	0	0	4
CIV	111	Soils & Foundations	2	3	0	0	3
CIV	125	Civil/Surveying CAD	1	6	0	0	3
CIV	210	Engineering Materials	1	3	0	0	2
CIV	211	Hydraulics & Hydrology	2	3	0	0	3
CIV	221	Steel & Timber Design	2	3	0	0	3
CIV	230	Construction Estimating	2	3	0	0	3
CIV	240	Project Management	2	3	0	0	3
CIV	250	Civil Engr Tech Project	1	3	0	0	2
EGR	115	Intro to Technology	2	6	0	0	4
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
MAT	223	Applied Calculus	2	2	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4
SRV	110	Surveying I	2	6	0	0	4
SRV	111	Surveying II	2	6	0	0	4

Electives (Select 11 semester hour credits)

CIV	212	Environmental Planning	2	3	0	0	3
CIV	215	Highway Technology	1	3	0	0	2
CIV	220	Basic Structural Concepts	1	3	0	0	2
CIV	222	Reinforced Concrete	2	3	0	0	3
CSC	129	Technical Programming	2	3	0	0	3
EGR	130	Engineering Cost Control	2	2	0	0	3
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1
SRV	210	Surveying III	2	6	0	0	4
SRV	220	Surveying Law	2	2	0	0	3
SRV	230	Subdivision Planning	1	6	0	0	3
SRV	240	Topo/Site Surveying	2	6	0	0	4
SRV	250	Advanced Surveying	2	6	0	0	4
SRV	260	Field & Office Practices	1	3	0	0	2
COE	111	Co-op Work Exp I	0	0	0	10	1
COE	121	Co-op Work Exp II	0	0	0	10	1
COE	131	Co-op Work Exp III	0	0	0	10	1
COE	211	Co-op Work Exp IV	0	0	0	10	1
COE	112	Co-op Work Exp I	0	0	0	20	2
COE	122	Co-op Work Exp II	0	0	0	20	2
COE	113	Co-op Work Exp I	0	0	0	30	3

Total Semester Hour Credits:

76

Not more than 4 shc may be taken in COE.

See your academic advisor or division dean for appropriate selection of humanities/fine arts elective and social/behavioral science elective.

Program requirements are subject to further change during this semester transition period.

CRIMINAL JUSTICE TECHNOLOGY

Associate in Criminal Justice Technology

(A55180)-This program is subject to change.

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.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
Select 3.0 hours from the following courses.							
ENG	112	Arg. Based Research	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
Select one of the following sequences.							
MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
or							
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
Select 6.0 hours from the following courses.							
HIS	111	World Civilization I	3	0	0	0	3
POL	110	Intro Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
REL	110	World Religions	3	0	0	0	3
SOC	210	Introduction to Sociology	3	0	0	0	3
Select 3.0 hours from the following courses.							
ANT	210	General Anthropology	3	0	0	0	3
ART	111	Art Appreciation	3	0	0	0	3
MUS	110	Music Appreciation	3	0	0	0	3
PHI	210	History of Philosophy	3	0	0	0	3

Major Courses

CJC	111	Intro to Criminal Justice	3	0	0	0	3
CJC	112	Criminology	3	0	0	0	3
CJC	113	Juvenile Justice	3	0	0	0	3
CJC	131	Criminal Law	3	0	0	0	3
CJC	212	Ethics & Comm Relations	3	0	0	0	3
CJC	221	Investigative Principles	3	2	0	0	4
CJC	231	Constitutional Law	3	0	0	0	3

Select 12 hours from the following courses.

CJC	114	Investigative Photography	1	2	0	0	2
CJC	120	Interviews/Interrogations	1	2	0	0	2
CJC	121	Law Enforcement Oper.	3	0	0	0	3
CJC	122	Community Policing	3	0	0	0	3
CJC	132	Court Procedure & Evid.	3	0	0	0	3
CJC	141	Corrections	3	0	0	0	3
CJC	211	Counseling	3	0	0	0	3
CJC	215	Organization & Admin.	3	0	0	0	3
CJC	222	Criminalistics	3	0	0	0	3
CJC	225	Crisis Intervention	3	0	0	0	3
CJC	232	Civil Liability	3	0	0	0	3
CJC	233	Correctional Law	3	0	0	0	3
CJC	250	Forensic Biology	1	2	0	0	2

Electives**Select 15.0 hours from the following courses.**

CIS	110	Intro. To Computers	2	2	0	0	3
CJC	151	Intro to Loss Prevention	3	0	0	0	3
CJC	198	Sem. In Issues in CJ	3	0	0	0	3
CJC	213	Substance Abuse	3	0	0	0	3
CJC	214	Victimology	3	0	0	0	3
CJC	223	Organized Crime	3	0	0	0	3
CJC	241	Community-Based Corr.	3	0	0	0	3
COE	111	Co-op Work Exp. I	0	0	0	10	1
COE	112	Co-op Work Exp. I	0	0	0	20	2
COE	113	Co-op Work Exp. I	0	0	0	30	3
COE	114	Co-op Work Exp. I	0	0	0	40	4
COE	121	Co-op Work Exp. II	0	0	0	10	1
COE	122	Co-op Work Exp. II	0	0	0	20	2
COE	123	Co-op Work Exp. II	0	0	0	30	3
COE	124	Co-op Work Exp. II	0	0	0	40	4
COE	131	Co-op Work Exp. III	0	0	0	10	1
COE	132	Co-op Work Exp. III	0	0	0	20	2
COE	133	Co-op Work Exp. III	0	0	0	30	3
COE	134	Co-op Work Exp. III	0	0	0	40	4
COE	211	Co-op Work Exp. IV	0	0	0	10	1
COE	212	Co-op Work Exp. IV	0	0	0	20	2
COE	213	Co-op Work Exp. IV	0	0	0	30	3
COE	214	Co-op Work Exp. IV	0	0	0	40	4
POL	120	American Government	3	0	0	0	3
POL	130	State & Local Gov.	3	0	0	0	3
PSY	183	Psychology of Addiction	3	0	0	0	3
SOC	220	Social Problems	3	0	0	0	3

Total Semester Hours Credit:

68

Program requirements are subject to further change during this semester transition period.

EARLY CHILDHOOD ASSOCIATE

Associate in Early Childhood

(A55220)-This program is subject to change.

The Early Childhood Associate 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.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
CIS	111	Basic PC Literacy	1	2	0	0	2
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof. Research & Report.	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
MAT	145	Analytical Math	3	0	0	0	3
		or					
BIO	155	Nutrition	3	0	0	0	3
Major Courses							
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	115	Seminar in Observation	1	0	0	0	1
COE	122	Co-op Work Exp. II	0	0	0	20	2
EDU	111	Early Childhood Cred. I	2	0	0	0	2
EDU	112	Early Childhood Cred. II	2	0	0	0	2
EDU	131	Child, Family, & Commun	3	0	0	0	3
EDU	146	Child Guidance	3	0	0	0	3
EDU	153	Health, Safety, & Nutrit.	3	0	0	0	3
EDU	155	Art & Drama for Children	1	2	0	0	2
EDU	157	Active Play	2	2	0	0	3
EDU	185	Cognitive & Lang. Act.	3	0	0	0	3
EDU	185A	Cog. & Lang. Act Lab	0	2	0	0	1
EDU	188	Issues in Early Child Ed.	2	0	0	0	2
EDU	221	Children with Sp. Needs	3	0	0	0	3
EDU	252	Math & Sci. Activities	3	0	0	0	3
EDU	252A	Math & Sci. Act Lab	0	2	0	0	1
EDU	261	Early Childhood Admin I	2	0	0	0	2
EDU	280	Literacy Experiences	3	0	0	0	3
EDU	282	Early Childhood Lit.	3	0	0	0	3
PSY	244	Child Development I	3	0	0	0	3
PSY	245	Child Development II	3	0	0	0	3

(Select 2.0 hours from the following)

EDU 234	Infants, Toddlers, & Twos	3	0	0	0	3
EDU 235	Sch.-Age Dev & Program	2	0	0	0	2
EDU 262	Early Childhood Admin II	3	0	0	0	3
EDU 288	Advanced Issues	2	0	0	0	2

Total Semester Hours Credit: 68

Program requirements are subject to further change during this semester transition period.

ELECTRONICS ENGINEERING TECHNOLOGY

Associate In Applied Science Degree

(A40200)-This program is subject to change.

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems, such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.

This program can be completed using either a day or evening sequence.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Humanities/Fine Arts Elective	3	0	0	0	3
		Social/Behavioral Science Elective	3	0	0	0	3
Major Courses							
EGR	115	Intro to Technology	2	6	0	0	4
EGR	285	Design Project	0	4	0	0	2
ELC	128	Introduction to PLC	2	3	0	0	3
ELC	131	DC/AC Circuit Analysis	4	3	0	0	5
ELC	228	PLC Applications	2	6	0	0	4
ELN	131	Electronic Devices	3	3	0	0	4
ELN	132	Linear IC Applications	3	3	0	0	4
ELN	133	Digital Electronics	3	3	0	0	4
ELN	154	Intro to Data Comm	2	3	0	0	3
ELN	232	Intro to Microprocessors	3	3	0	0	4
ELN	233	Microprocessor Systems	3	3	0	0	4
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
MAT	223	Applied Calculus	2	2	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4

Electives (Select 10 shc)

CSC	129	Technical Programming	2	3	0	0	3
ELC	231	Electric Power Systems	3	2	0	0	4
ELN	150	CAD for Electronics	1	3	0	0	2
ELN	229	Industrial Electronics	2	4	0	0	4
ELN	234	Communications Systems	3	3	0	0	4
ELN	235	Data Comm Systems	3	3	0	0	4
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1
COE	111	Co-op Work Exp I	0	0	0	10	1
COE	121	Co-op Work Exp II	0	0	0	10	1
COE	131	Co-op Work Exp III	0	0	0	10	1
COE	211	Co-op Work Exp IV	0	0	0	10	1
COE	112	Co-op Work Exp I	0	0	0	20	2
COE	122	Co-op Work Exp II	0	0	0	20	2
COE	113	Co-op Work Exp I	0	0	0	30	3

Total Semester Hour Credits:

76

Not more than 4 shc may be taken in COE.

See your academic advisor or division dean for appropriate selection of humanities/fine arts elective and social/behavioral science elective.

Program requirements are subject to further change during this semester transition period.

EMERGENCY MEDICAL SCIENCE

Associate In Applied Science Degree

(A45340)-This program is subject to change.

The Emergency Medical Science Associate of Applied Science curriculum is designed to prepare graduates to enter the workforce as paramedics or to provide career enhancement.

The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
PHI	240	Introduction to Ethics	3	0	0	0	3
SOC	215	Group Processes	3	0	0	0	3
BIO	165	Anat & Physiology I OR	3	3	0	0	4
BIO	163	Applied Anat & Phys *	4	2	0	0	5
Major Courses							
EMS	110	EMT-Basic	5	3	0	0	6
EMS	111	Prehospital Environment	2	2	0	0	3
EMS	120	Intermediate Interventions	2	3	0	0	3
EMS	130	Pharmacology I for EMS	1	2	0	0	2
EMS	131	Adv Airway Management	1	2	0	0	2
EMS	140	Rescue Scene Mgmt	1	6	0	0	3
EMS	150	Emerg Veh & EMS Comm	1	3	0	0	2
EMS	210	Adv Patient Assessment	2	2	0	0	3
EMS	220	Cardiology	3	3	0	0	4
EMS	235	EMS Management	2	0	0	0	2
EMS	240	Behavioral Emergencies	2	0	0	0	2
EMS	250	Advanced Med Emerg	2	2	0	0	3
EMS	260	Advanced Trauma Emerg	1	3	0	0	2
EMS	270	Life Span Emergencies	2	2	0	0	3
EMS	285	EMS Capstone	1	3	0	0	2
BIO	166	Anatomy & Physiology II	3	3	0	0	4
EMS	121	EMS Clin Pract I	0	0	6	0	2
EMS	221	Clin Pract II OR	0	0	9	0	3
EMS	222	EMS Hosp Clin II AND	0	0	6	0	2
COE	121	Co-op Work Exp II	0	0	0	10	1
EMS	231	Clin Pract III OR	0	0	9	0	3
EMS	232	EMS Hosp Clin III AND	0	0	6	0	2
COE	131	Co-op Work Exp III	0	0	0	10	1

EMS	241	Clin Pract IV OR	0	0	9	0	3
EMS	242	EMS Hosp Clin IV AND	0	0	6	0	2
COE	211	Co-op Work Exp IV	0	0	0	10	1

Other Required Hours

EMS	280	EMS Bridging Course *	2	2	0	0	3
CIS	111	Basic PC Literacy	1	2	0	0	2

Total Semester Hours Credit: 75

*** FOR BRIDGING STUDENTS ONLY**

An 18 semester hour EMT-Intermediate certificate program and an EMS Bridging program are also offered. For further information, please contact the EMS department at 922-6249.

Program requirements are subject to further change during this semester transition period.

FIRE PROTECTION TECHNOLOGY

Associate In Applied Science Degree

(A55240)-This program is subject to change.

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation of continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercise to introduce the students to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective	3	0	0	0	3
		Social Science Elective	3	0	0	0	3
MAT	115	Mathematical Models	2	2	0	0	3
Major Courses							
FIP	120	Intro to Fire ProtectionI	2	0	0	0	2
FIP	124	Fire Prev. & Public Ed	3	0	0	0	3
FIP	128	Detection & Investigation	3	0	0	0	3
FIP	220	Fire Fighting Strategies	3	0	0	0	3
FIP	230	Chem of Hazardous Mat I	5	0	0	0	5
FIP	256	Munic Public Relations	2	0	0	0	2
FIP	132	Building Construction	3	0	0	0	3
FIP	224	Instruc Methodology	3	0	0	0	3
FIP	140	Industrial Fire Protect	2	0	0	0	2
FIP	152	Fire Protection Law	2	0	0	0	2
FIP	136	Inspections & Codes	3	0	0	0	3
FIP	276	Managing Fire Services	3	0	0	0	3
FIP	236	Emergency Management	2	0	0	0	2
FIP	144	Sprinklers & Auto Alarms	2	2	0	0	3
FIP	228	Local Govt Finance	2	0	0	0	2
FIP	240	Fire Service Supervision	2	0	0	0	2
FIP	252	Apparatus Spec & Purch	2	0	0	0	2
FIP	232	Hydraulics & Water Dist	2	2	0	0	3
POL	120	American Government	3	0	0	0	3
		Total Semester Hour Credits:					66

Program requirements are subject to further change during this transition period.

INDUSTRIAL ENGINEERING TECHNOLOGY

Associate In Applied Science Degree

(A40240)-This program is subject to change.

The Industrial Engineering Technology curriculum prepares graduates to perform as technical leaders in manufacturing and service organizations. The curriculum incorporates the study and application of methods and techniques for developing, implementing and improving integrated systems involving people, material, equipment and information.

The coursework emphasizes analytical and problem-solving techniques for process development and improvement. The curriculum includes systems analysis, quality and productivity improvement techniques, cost analysis, facilities planning, organizational management, effective communications, and computer usage as a problem-solving tool.

Graduates of the curriculum will qualify for positions in a wide range of manufacturing and service organizations. Employment opportunities include industrial engineering technology, quality assurance, supervision, team leadership, and facilities management. Certification is available through organizations such as ASQC, SME, and APICS.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.

This program can be completed using either a day or evening sequence.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111	Expository Writing	3	0	0	3
ENG	114	Prof Research & Report	3	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
Major Courses						
ACC	170	Technical Accounting	2	3	0	3
DFT	170	Engineering Graphics	2	2	0	3
EGR	115	Intro to Technology	2	6	0	4
EGR	285	Design Project	0	4	0	2
ISC	112	Industrial Safety	2	0	0	2
ISC	128	Industrial Leadership	2	0	0	2
ISC	132	Mfg Quality Control	2	3	0	3
ISC	136	Productivity Analysis I	2	3	0	3
ISC	230	Simulation Prod Processes	1	3	0	2
ISC	236	Productivity Analysis II	2	3	0	3
ISC	243	Prod & Operations Mgmt I	2	3	0	3
ISC	244	Prod & Operations Mgmt II	2	3	0	3
ISC	255	Engineering Economy	2	2	0	3
ISC	256	System Design	2	3	0	3

MAT	122	Algebra/Trigonometry II	2	2	0	0	3
MAT	223	Applied Calculus	2	2	0	0	3
MEC	145	Manufacturing Materials I	2	3	0	0	3
MEC	245	Manufacturing Materials II	2	3	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4

Electives (Select 6 shc)

CSC	129	Technical Programming	2	3	0	0	3
EGR	130	Engineering Cost Control	2	2	0	0	3
ISC	223	Quantitative Methods	3	0	0	0	3
ISC	233	Industrial Organ & Mgmt	3	0	0	0	3
ISC	237	Quality Management	2	3	0	0	3
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1
OMT	222	Project Management	3	0	0	0	3
COE	111	Co-op Work Exp I	0	0	0	10	1
COE	121	Co-op Work Exp II	0	0	0	10	1
COE	131	Co-op Work Exp III	0	0	0	10	1
COE	112	Co-op Work Exp I	0	0	0	20	2
COE	113	Co-op Work Exp I	0	0	0	30	3

Total Semester Hour Credits: 76

Not more than 4 shc may be taken in COE.

See your academic advisor or division dean for appropriate selection of humanities/fine arts elective and social/behavioral science elective.

Program requirements are subject to further change during this semester transition period.

INDUSTRIAL MANAGEMENT TECHNOLOGY

Associate In Applied Science Degree

(A50260)-This program is subject to change.

The Industrial Management Technology curriculum is designed to equip students with the knowledge, skills, and abilities to function effectively in staff, front-line leadership, and mid-level management positions in organizations. The program emphasizes team building, TQM, SPC, motivation, continuous improvement, systems, and leadership.

Coursework includes the integrated study of quality and productivity improvement, production operations, management, financial analysis, problem solving, and management of resources—human, physical, and information. Coursework incorporates a broad understanding of computer applications to analyze and solve problems.

Graduates should qualify for entry-level positions such as front-line supervisor, engineering assistant, production planner, inventory supervisor, or quality control technician. With additional training and experience, graduates could become plant managers or production managers.

This program can be completed using either a day or evening sequence.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4
		Humanities/Fine Arts Elective	3	0	0	0	3
		Social/Behavioral Science Elective	3	0	0	0	3
Major Courses							
ACC	170	Technical Accounting	2	3	0	0	3
DFT	170	Engineering Graphics	2	2	0	0	3
EGR	115	Intro to Technology	2	6	0	0	4
ISC	112	Industrial Safety	2	0	0	0	2
ISC	128	Industrial Leadership	2	0	0	0	2
ISC	132	Mfg Quality Control	2	3	0	0	3
ISC	135	Prin of Industrial Mgmt	3	0	0	0	3
ISC	136	Productivity Analysis I	2	3	0	0	3
ISC	233	Industrial Org & Mgmt	3	0	0	0	3
ISC	236	Productivity Analysis II	2	3	0	0	3
ISC	237	Quality Management	2	3	0	0	3
ISC	243	Prod & Operations Mgmt I	2	3	0	0	3
ISC	244	Prod & Operations Mgmt II	2	3	0	0	3
ISC	255	Engineering Economy	2	2	0	0	3
MEC	145	Manufacturing Materials I	2	3	0	0	3
MEC	245	Manufacturing Materials II	2	3	0	0	3

Electives (Select 6 shc)

CSC	129	Technical Programming	2	3	0	0	3
ECO	151	Survey of Economics	3	0	0	0	3
EGR	130	Engineering Cost Control	2	2	0	0	3
ISC	223	Quantitative Methods	3	0	0	0	3
ISC	230	Simulation Prod Processes	1	3	0	0	2
ISC	235	Management Problems	3	0	0	0	3
ISC	256	System Design	2	3	0	0	3
OMT	222	Project Management	3	0	0	0	3
COE	111	Co-op Work Exp I	0	0	0	10	1
COE	121	Co-op Work Exp II	0	0	0	10	1
COE	131	Co-op Work Exp III	0	0	0	10	1
COE	112	Co-op Work Exp I	0	0	0	20	2
COE	113	Co-op Work Exp I	0	0	0	30	3
Total Semester Hour Credits:							75

Not more than 4 shc may be taken in COE.

See your academic advisor or division dean for appropriate selection of humanities/fine arts elective and social/behavioral science elective

Program requirements are subject to further change during this semester transition period.

INFORMATION SYSTEMS

Associate In Applied Science Degree

(A25260)-This program is subject to change.

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective**	3	0	0	0	3
ECO	151	Survey of Economics	3	0	0	0	3
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
Major Courses							
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	115	Intro to Prog. & Logic	2	2	0	0	3
CIS	130	Survey of Operating Sys.	2	3	0	0	3
CIS	152	Database Concepts & Apps	2	2	0	0	3
NET	110	Data Comm/Networking	2	2	0	0	3
BUS	110	Introduction to Business	3	0	0	0	3
CIS	118	IS Professional Comm.	2	0	0	0	2
CIS	120	Spreadsheet I	2	2	0	0	3
CIS	121	User Support & Softw Eval	1	4	0	0	3
CIS	144	Operating System-DOS	2	2	0	0	3
CIS	147	Operating Sys-Windows	2	2	0	0	3
CIS	162	MM Presentation Software	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	215	Hardware Install/Maint	2	3	0	0	3
CIS	216	Software Install/Maint	1	2	0	0	2
CIS	220	Spreadsheet II	1	2	0	0	2
CIS	225	Integrated Software	1	2	0	0	2
CSC	139	Visual Basic Programming	2	3	0	0	3
OST	136	Word Processing *	1	2	0	0	2
OST	233	Office Publications Design	2	2	0	0	3
OST	236	Adv Word/Info Procedures	2	2	0	0	3
Total Semester Hours Credit:							74

*Requires OST 131 (Keyboarding) or proof of touch keyboarding skills.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

INFORMATION SYSTEMS-PROGRAMMING

Associate In Applied Science Degree

(A2526E)-This program is subject to change.

Programming is a concentration under the curriculum title of Information Systems. This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on-training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective*	3	0	0	0	3
ECO	151	Survey of Economics	3	0	0	0	3
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
Major Courses							
CIS	115	Intro to Prog. & Logic	2	2	0	0	3
CIS	130	Survey of Operating Sys.	2	3	0	0	3
CIS	152	Database Concepts & Apps	2	2	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
NET	110	Data Comm/Networking	2	2	0	0	3
BUS	110	Introduction to Business	3	0	0	0	3
CSC	135	COBOL Programming	2	3	0	0	3
CSC	138	RPG Programming	2	3	0	0	3
CSC	143	Object-Oriented Prog.	2	3	0	0	3
CSC	235	Advanced COBOL	2	3	0	0	3
CSC	238	Advanced RPG	2	3	0	0	3
CSC	134	C++ Programming	2	3	0	0	3
CSC	139	Visual Basic Programming	2	3	0	0	3
CIS	286	Systems Analysis & Design	3	0	0	0	3
CIS	288	Systems Project	1	4	0	0	3
ACC	120	Prin of Accounting I	3	2	0	0	4

Operating System Electives

(Select 3 hours)

CIS	144	Operating System - DOS	2	2	0	0	3
CIS	147	Operating Sys -Windows	2	2	0	0	3
CIS	148	Operating Sys-Windows NT	2	2	0	0	3
CIS	244	Operating Sys-AS/400	2	3	0	0	3
CIS	246	Operating System-UNIX	2	3	0	0	3

Electives (Select 6 hours)

CIS	128	Comp. Language Survey	3	0	0	0	3
CIS	144	Operating System-DOS	2	2	0	0	3
CIS	147	Operating Sys-Windows	2	2	0	0	3
CIS	148	Operating Sys.Windows NT	2	2	0	0	3
CIS	153	Database Applications	2	2	0	0	3
CIS	155	Database Theory & Anal	2	2	0	0	3
CIS	157	Database Programming I	2	2	0	0	3
CIS	162	MM Presentation Software	2	2	0	0	3
CIS	163	Prog. Interfaces Internet	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	244	Operating System-AS/400	2	3	0	0	3
CIS	246	Operating System-UNIX	2	3	0	0	3
CIS	279	UNIX System Admin.	3	3	0	0	4
CSC	131	Assembly Programming	2	3	0	0	3
CSC	141	Visual C++ Programming	2	3	0	0	3
CSC	150	Visual RPG Programming	2	3	0	0	3
CSC	234	Advanced C++	2	3	0	0	3
CSC	239	Advanced Visual Basic	2	3	0	0	3
CSC	241	Advanced Visual C++	2	3	0	0	3
CSC	244	CICS	4	2	0	0	5
CSC	250	Advanced Visual RPG	2	3	0	0	3
CSC	248	Advanced Internet Prog.	2	3	0	0	3
COE	111	Coop Work Experience I	0	0	0	10	1
COE	112	Coop Work Experience I	0	0	0	20	2
COE	113	Coop Work Experience I	0	0	0	30	3
COE	121	Coop Work Experience II	0	0	0	10	1
COE	122	Coop Work Experience II	0	0	0	20	2
COE	132	Coop Work Experience III	0	0	0	20	2

Total Semester Hours Credit: 74

*Humanities Elective: ART, MUS, REL, PHI, and HUM. Program requirements are subject to further change during this transition period.

MACHINING TECHNOLOGY

Associate In Applied Science Degree

(A50300)-This program is subject to change.

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and a wide range of specialty machining job shops.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective	3	0	0	0	3
		Social Science Elective	3	0	0	0	3
MAT	120	Geometry and Trigonometry	2	2	0	0	3
Major Courses							
BPR	111	Blueprint Reading	1	2	0	0	2
BPR	121	Blueprint Reading: Mech	1	2	0	0	2
DFT	151	CAD I	2	3	0	0	3
DFT	152	CAD II	2	3	0	0	3
MAC	111	Machining Technology I	2	12	0	0	6
MAC	112	Machining Technology II	2	12	0	0	6
MAC	113	Machining Technology III	2	12	0	0	6
MAC	114	Intro to Metrology	2	0	0	0	2
MAC	121	Intro to CNC	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2
MAC	124	CNC Milling	1	3	0	0	2
MAC	222	Advanced CNC Turning	1	3	0	0	2
MAC	232	CNC Graphics Prog:Mill	1	4	0	0	3
MAC	243	Die Making I	2	6	0	0	4
MAC	245	Mold Construction I	2	6	0	0	4
*Select 2 SHC From the following courses:							
BPR	221	Interpretation of GD & T	2	0	0	0	2
COE	112	Co-Op I	2	0	0	20	2
Total Semester Hour Credits:							66

Program requirements are subject to further change during this transition period.

MECHANICAL DRAFTING TECHNOLOGY

Associate In Applied Science Degree

(A50340)-This program is subject to change.

The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized.

Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences, as they relate to the design process, are also included. The use of proper dimensioning and tolerance techniques is stressed.

Graduates should qualify for employment in mechanical areas, such as manufacturing, fabrication, research and development, and service industries.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective	3	0	0	0	3
		Social Science Elective	3	0	0	0	3
MAT	121	Alegebra/Trigonometry I	2	2	0	0	3
Major Courses							
DFT	111	Tech Drafting I	2	6	0	0	4
DFT	112	Tech Drafting II	2	6	0	0	4
DFT	121	Intro to GD & T	1	2	0	0	2
DFT	151	CAD I	2	3	0	0	3
DFT	152	CAD II	2	3	0	0	3
DFT	153	CAD III	2	3	0	0	3
DFT	211	Gears, Cams, Pulleys	1	3	0	0	2
DFT	221	Electrical Drafting	2	6	0	0	4
DFT	231	Jig & Fixture Design	1	2	0	0	2
DDF	211	Design Drafting I	2	6	0	0	4
CIS	111	Basic PC Literacy	1	2	0	0	2
HYD	110	Hydraulics/Pneumatics I	2	3	0	0	3
MAC	121	Intro to CNC	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2
MAC	243	Die Making I	2	6	0	0	4
MEC	111	Machine Processes I	2	3	0	0	3
MEC	210	Materials-Stress Analysis	1	2	0	0	2
Total Semester Hours Credits:							64

Program requirements are subject to further change during this transition period.

MECHANICAL ENGINEERING TECHNOLOGY

Associate In Applied Science Degree

(A40320)-This program is subject to change.

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Coursework includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

This curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.

This program can be completed using either a day or evening sequence.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Humanities/Fine Arts Elective	3	0	0	0	3
		Social/Behavioral Science Elective	3	0	0	0	3
Major Courses							
ATR	112	Introduction to Automation	2	3	0	0	3
ATR	211	Robot Programming	2	3	0	0	3
CIS	111	Basic PC Literacy	1	2	0	0	2
DFT	111	Technical Drafting I	2	6	0	0	4
DFT	151	CAD I	2	3	0	0	3
EGR	115	Intro to Technology	2	6	0	0	4
EGR	285	Design Project	0	4	0	0	2
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
MAT	223	Applied Calculus	2	2	0	0	3
MEC	111	Machine Processes I	2	3	0	0	3
MEC	180	Engineering Materials	2	3	0	0	3
MEC	250	Statics & Strength of Mtls	4	3	0	0	5
MEC	265	Fluid Mechanics	2	2	0	0	3
MEC	267	Thermal Systems	2	2	0	0	3
MEC	270	Machine Design	3	3	0	0	4
MEC	275	Mechanisms	2	2	0	0	3
PHY	131	Physic-Mechanics	3	2	0	0	4

Electives (Select 6 shc)

CSC	129	Technical Programming	2	3	0	0	3
DFT	112	Technical Drafting II	2	6	0	0	4
DFT	231	Jig & Fixture Design	1	2	0	0	2
HYD	110	Hydraulics/Pneumatics I	2	3	0	0	3
MAT	175	Precalculus	4	0	0	0	4
MAT	175A	Precalculus Lab	0	2	0	0	1
MEC	112	Machine Processes II	2	3	0	0	3
MEC	161	Mfg Processes I	3	0	0	0	3
MEC	210	Materials-Stress Analysis	1	2	0	0	2
MEC	281	Electrical Mfg Processes	3	3	0	0	4
MEC	283	Introduction to CAM	2	3	0	0	3
PLA	120	Injection Molding	2	3	0	0	3
PLA	162	Plastics Mfg Processes	2	3	0	0	3
PLA	230	Advanced Plastic Mfg	3	3	0	0	4
COE	111	Co-op Work Exp I	0	0	0	10	1
COE	121	Co-op Work Exp II	0	0	0	10	1
COE	131	Co-op Work Exp III	0	0	0	10	1
COE	211	Cop-op Work Exp IV	0	0	0	10	1
COE	112	Co-op Work Exp I	0	0	0	20	2
COE	122	Co-op Work Exp II	0	0	0	20	2
COE	113	Co-op Work Exp I	0	0	0	30	3
Total Semester Hour Credits:							76

Not more than 4 shc may be taken in COE.

See your academic advisor or division dean for appropriate selection of humanities/fine arts elective and social/behavioral science elective.

Program requirements are subject to further change during this semester transition period.

MEDICAL ASSISTING

Associate In Applied Science Degree

(A45400)-This program is subject to change.

The Medical Assisting curriculum prepares multi-skills health care professionals 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.

Graduates may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
BIO	175	General Microbiology	2	2	0	0	3
Major Courses							
MED	110	Orientation to Med Assist	1	0	0	0	1
MED	118	Medical Law and Ethics	2	0	0	0	2
MED	121	Medical Terminology I	3	0	0	0	3
MED	122	Medical Terminology II	3	0	0	0	3
MED	130	Admin Office Proc I	1	2	0	0	2
MED	131	Admin Office Proc II	1	2	0	0	2
MED	134	Medical Transcription	2	2	0	0	3
MED	140	Exam Room Procedures I	3	4	0	0	5
MED	150	Laboratory Procedures I	3	4	0	0	5
MED	260	MED Clinical Externship	0	0	15	0	5
BIO	163	Basic Anat & Physiology	4	2	0	0	5
OST	131	Keyboarding	1	2	0	0	2
MED	230	Admin Office Proc III	1	2	0	0	2
MED	240	Exam Room Procedures II	3	4	0	0	5
MED	250	Laboratory Procedures II	3	4	0	0	5
MED	262	Clinical Perspectives	1	0	0	0	1
MED	264	Med Assisting Overview	2	0	0	0	2
MED	270	Symptomatology	2	2	0	0	3
MED	272	Drug Therapy	3	0	0	0	3
Total Semester Hours Credit:							74

Program requirements are subject to further change during this semester transition period.

NURSING (ASSOCIATE DEGREE NURSING)

Associate In Applied Science Degree

(A45120)-This program is subject to change.

The Associate Degree Nursing curriculum provides individuals with the knowledge and 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 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 which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physicians' offices, industry, and community agencies.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111 Expository Writing*	3	0	0	0	3
ENG	114 Prof Research & Report*	3	0	0	0	3
BIO	165 Anatomy & Physiology I*	3	3	0	0	4
PSY	150 General Psychology*	3	0	0	0	3
	Humanities/Fine Arts Elective	3	0	0	0	3
Major Courses						
NUR	115 Fundamentals of Nursing*	2	3	6	0	5
NUR	125 Maternal-Child Nursing*	5	3	6	0	8
NUR	135 Adult Nursing I*	5	3	9	0	9
NUR	185 Mental Health Nursing	3	0	6	0	5
NUR	235 Adult Nursing II	4	3	15	0	10
BIO	166 Anatomy & Physiology II*	3	3	0	0	4
BIO	175 General Microbiology	2	2	0	0	3
PSY	281 Abnormal Psychology	3	0	0	0	3
SOC	210 Introduction to Sociology	3	0	0	0	3
NUR	255 Professional Issues	3	0	0	0	3
NUR	188 Nursing in the Community	1	0	6	0	3
NUR	189 Nursing Transition	1	3	0	0	2
	Total Semester Hours Credit:					74

*The student may exit after the completion of 36 hours or the end of the third semester, after the first summer, or at the end of the fourth semester, after the second fall, and receive a diploma which entitles the student to apply to take the National Council Licensure Examination (NCLEX-PN).

Program requirements are subject to further change during this semester transition period.

OFFICE SYSTEMS TECHNOLOGY

Associate In Applied Science Degree

(A25360)-This program is subject to change.

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 communication, analysis and coordination of office duties and systems, and other support topics.

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.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective	3	0	0	0	3
		Social Science Elective	3	0	0	0	3
		Math Elective (MAT 110 or higher)	3	0	0	0	3
Major Courses							
OST	131	Keyboarding	1	2	0	0	2
OST	134	Text Entry/Formatting	3	2	0	0	4
OST	136	Word Processing	1	2	0	0	2
OST	137	Office Software Applic.	1	2	0	0	2
OST	164	Text Editing Applic.	2	2	0	0	2
OST	289	Office Systems Mgt.	2	2	0	0	3
ACC	120	Principles of Accounting	3	2	0	0	4
BUS	121	Business Math	2	2	0	0	4
BUS	260	Business Communications	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	120	Spreadsheet	2	2	0	0	3
OST	122	Office Computation	1	2	0	0	2
OST	135	Adv. Text Entry & Format	3	2	0	0	4
OST	184	Records Management	1	2	0	0	2
OST	188	Issues in Office Tech.	2	0	0	0	2
OST	223	Machine Transcription I	1	2	0	0	2
OST	224	Machine Transcription II	1	2	0	0	2
OST	233	Office Publications Design	2	2	0	0	3
OST	236	Adv. Word/Info Process.	2	2	0	0	3
OST	286	Professional Development	2	0	0	0	2

Other Required Hours**Electives (Select 6 schs)****May only select one BUS and CIS**

ACC	121	Principles of Accounting II	3	2	0	0	4
BUS	110	Introduction to Business	3	0	0	0	3
BUS	115	Business Law I	3	0	0	0	3
BUS	125	Personal Finance	3	0	0	0	3
BUS	225	Business Finance	2	2	0	0	3
CIS	162	Multimedia Pres. Software	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	216	Software Install/Maint.	1	2	0	0	2
COE	111	Work Experience I	0	10	0	0	1
COE	121	Work Experience I	0	10	0	0	1
COE	131	Work Experience I	0	10	0	0	1
COE	112	Work Experience II	0	20	0	0	2
COE	122	Work Experience II	0	20	0	0	2
COE	132	Work Experience II	0	20	0	0	2
ECO	151	Survey of Economics	3	0	0	0	3
ECO	251	Microeconomics**	3	0	0	0	3
NET	110	Data Comm/Networking	2	2	0	0	3
OST	132	Keyboard Skill Building	1	2	0	0	2
OST	284	Emerging Technologies	2	0	0	0	2
Total Semester Hours Credit:							75

*(No more than 3 semester hours may be taken in COE)

Credits toward the AAS may be given to persons who have earned the Certified Professional Secretary designation. For further information, persons holding this certification should contact the Chairperson of Office Systems Technology.

*Students who are planning to transfer to a four-year program should take ECO 252-Principles of Macroeconomics as their Social Science Elective, ECO 251 as a major elective, and MAT 161 College Algebra as their Mathematics Elective.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

OFFICE SYSTEMS TECHNOLOGY-LEGAL

Associate In Applied Science Degree

(A2536A)-This program is subject to change.

Legal is a concentration under the curriculum title of Office Systems Technology. This curriculum prepares individuals for entry-level positions in legal or government-related offices and provides professional development for the currently employed.

Course work includes terminology, operational procedures, preparation and transcription of documents, computer software, and court-related functions, as they relate to the legal office profession. Emphasis is placed on the development of accuracy, organizational skills, discretion, and professionalism.

Graduates should qualify for employment in corporate legal departments; private practices, including real estate and estate planning; and city, state, and federal government offices. With appropriate work experience, graduates may apply for certification as a Professional Legal Secretary (PLS).

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective**	3	0	0	0	3
		Social Science Elective*	3	0	0	0	3
		Math Elective (MAT 110 or higher)*	3	0	0	0	3
Major Courses							
OST	131	Keyboarding	1	2	0	0	2
OST	134	Text Entry/Formatting	3	2	0	0	4
OST	136	Word Processing	1	2	0	0	2
OST	137	Office Software Applic.	1	2	0	0	2
OST	164	Text Editing Applic.	3	0	0	0	3
OST	289	Office Systems Mgt.	2	2	0	0	3
OST	155	Legal Terminology	3	0	0	0	3
OST	156	Legal Office Procedures	2	2	0	0	3
OST	251	Legal Document Format.	2	2	0	0	3
OST	252	Legal Transcription I	1	2	0	0	2
OST	253	Legal Transcription II	1	2	0	0	2
ACC	120	Principles of Accounting	3	2	0	0	4
BUS	115	Business Law I	3	0	0	0	3
BUS	121	Business Math	2	2	0	0	3
BUS	260	Business Communications	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	120	Spreadsheet I	2	2	0	0	3
OST	184	Records Management	1	2	0	0	2
OST	188	Issues in Office Tech.	2	0	0	0	2
OST	236	Adv. Word/Info Process.	2	2	0	0	3
OST	286	Professional Development	2	0	0	0	2

Electives (Select 3 hours)

ACC	121	Principles of Accounting II	3	2	0	0	4
CIS	130	Survey of Operating Sys.	2	3	0	0	3
CIS	162	Multimedia Pres. Software	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	216	Software Install/Maint.	1	2	0	0	2
CJC	131	Criminal Law	3	0	0	0	3
COE	111	Work Experience I	0	0	0	10	1
COE	121	Work Experience II	0	0	0	10	1
COE	131	Work Experience III	0	0	0	10	1
COE	112	Work Experience I	0	0	0	20	2
COE	122	Work Experience II	0	0	0	20	2
COE	132	Work Experience III	0	0	0	20	2
ECO	151	Survey of Economics	3	0	0	0	3
ECO	251	Microeconomics*	3	0	0	0	3
LEX	110	Intro to Paralegal Study	2	0	0	0	2
LEX	120	Legal Research/Writing I	2	2	0	0	3
LEX	121	Legal Research/Writing II	2	2	0	0	3
LEX	270	Law Office Mgt/Tech.	1	2	0	0	2
NET	110	Data Comm/Networking	2	2	0	0	3
OST	122	Office Computation	1	2	0	0	2
OST	132	Keyboard Skill Building	1	2	0	0	2
OST	284	Emerging Technologies	2	0	0	0	2

Total Semester Hours Credit:

75

Credits toward the AAS may be given to persons who have earned the Certified Professional Secretary designation. For further information, persons holding this certification should contact the Chairperson of Office Systems Technology.

* Students who are planning to transfer to a four-year program should take ECO 252- Principles of Macroeconomics as their Social Science Elective, ECO 251 as a major elective, and MAT 161 College Algebra as their Mathematics Elective.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

OFFICE SYSTEMS TECHNOLOGY-MEDICAL

Associate In Applied Science Degree

(A2536B)-This program is subject to change.

Medical is a concentration under the curriculum title of Office Systems Technology. This curriculum prepares individuals for entry-level positions in medical and allied health facilities. Jobs include transcription, secretary, hospital unit secretary, records clerk, insurance form preparer, patient accounting clerk, and clinical technician.

Course work includes processing, compiling, recording, and maintaining medical records; utilizing office equipment and software; medical law and ethics; billing and coding; and transcribing medical documents.

Employment opportunities include the offices of allied health facilities, HMOs, insurance claims processors, laboratories, and manufacturers and suppliers of medical and hospital equipment.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
		Humanities Elective**	3	0	0	0	3
		General Psychology	3	0	0	0	3
		Math Elective (MAT 110 or higher)*	3	0	0	0	3
Major Courses							
OST	131	Keyboarding	1	2	0	0	2
OST	134	Text Entry/Formatting	3	2	0	0	4
OST	136	Word Processing	1	2	0	0	2
OST	137	Office Software Applic.	1	2	0	0	2
OST	164	Text Editing Applic.	3	0	0	0	3
OST	289	Office Systems Mgt.	2	2	0	0	3
OST	141	Med. Term. I -Med. Office	3	0	0	0	3
OST	142	Med. Term. II- Med. Office	3	0	0	0	3
OST	148	Med. Coding, Bill. & Insur.	3	0	0	0	3
OST	149	Medical Legal Issues	2	0	0	0	2
OST	241	Med. Office Transcription I	1	2	0	0	2
OST	243	Med. Office Simulation	2	2	0	0	3
ACC	120	Principles of Accounting	3	2	0	0	4
BUS	121	Business Math	2	2	0	0	3
BUS	260	Business Communications	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
OST	122	Office Computation	1	2	0	0	2
OST	236	Adv. Word/Info Process.	2	2	0	0	3
OST	242	Med Office Transcription II	1	2	0	0	2
OST	244	Med. Doc. Production	1	2	0	0	2

Electives (Select 6 hours)**May only select one BUS prefix**

ACC	121	Principles of Accounting II	3	2	0	0	4
BIO	163	Basic Anatomy & Physio.	4	2	0	0	5
BUS	110	Introduction to Business	3	0	0	0	3
BUS	115	Business Law I	3	0	0	0	3
BUS	125	Personal Finance	3	0	0	0	3
BUS	225	Business Finance	2	2	0	0	3
CIS	130	Survey of Operating Sys.	2	3	0	0	3
CIS	162	Multimedia Pres. Software	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	216	Software Install/Maint.	1	2	0	0	2
COE	111	Work Experience I	0	0	0	10	1
COE	121	Work Experience II	0	0	0	10	1
COE	131	Work Experience III	0	0	0	10	1
COE	112	Work Experience I	0	0	0	20	2
COE	122	Work Experience II	0	0	0	20	2
COE	132	Work Experience III	0	0	0	20	2
ECO	151	Survey of Economics	3	0	0	0	3
ECO	251	Microeconomics*	3	0	0	0	3
ECO	252	Macroeconomics*					
NET	110	Data Comm/Networking	2	2	0	0	3
OST	132	Keyboard Skill Building	1	2	0	0	2
OST	284	Emerging Technologies	2	0	0	0	2

(No more than 3 semester hours may be taken in COE)

Total Semester Hours Credit:

75

Credits toward the AAS may be given to persons who have earned the Certified Professional Secretary designation. For further information, persons holding this certification should contact the Chairperson of Office Systems Technology.

* Students who are planning to transfer to a four-year program should take ECO 251 and ECO 252 as major electives, and MAT 161 College Algebra as their Mathematics Elective.

**Humanities Elective: ART, MUS, REL, PHI, and HUM.

Program requirements are subject to further change during this transition period.

PARALEGAL TECHNOLOGY

Associate in Paralegal Technology

(A25380)-This program is subject to change.

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

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.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
Select 3.0 hours from the following courses							
ENG	112	Arg. Based Research	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
Select one of the following sequences.							
MAT	151	Statistics I	3	0	0	0	3
MAT	151A	Statistics I Lab	0	2	0	0	1
or							
MAT	161	College Algebra	3	0	0	0	3
MAT	161A	College Algebra Lab	0	2	0	0	1
(Select 3.0 hours from the following courses)							
ART	111	Art Appreciation	3	0	0	0	3
MUS	110	Music Appreciation	3	0	0	0	3
PHI	210	History of Philosophy	3	0	0	0	3
REL	110	World Religions	3	0	0	0	3
(Select 3.0 hours from the following courses)							
HIS	111	World Civilization I	3	0	0	0	3
POL	110	Intro Political Science	3	0	0	0	3
POL	120	American Government	3	0	0	0	3
POL	130	State & Local Gov.	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
SOC	210	Introduction to sociology	3	0	0	0	3

(Select 3.0 hours from the following courses)

ANT	210	General Anthropology	3	0	0	0	3
HUM	115	Critical Thinking	3	0	0	0	3
or							
RED	111	Crit Reading for College	3	0	0	0	3

Major Courses

CIS	110	Introduction to Computers	2	2	0	0	3
LEX	110	Intro to Paralegal Study	2	0	0	0	2
LEX	120	Legal Research/Writing I	2	2	0	0	3
LEX	121	Legal Research/Writing II	2	2	0	0	3
LEX	130	Civil Injuries	2	0	0	0	2
LEX	140	Civil Litigation I	2	2	0	0	3
LEX	141	Civil Litigation II	2	2	0	0	3
LEX	150	Commercial Law	2	2	0	0	3
LEX	160	Criminal Law & Procedure	3	0	0	0	3
LEX	170	Administrative Law	2	0	0	0	2
LEX	198	Seminar in Legal Issues	3	0	0	0	3
LEX	210	Real Property I	2	0	0	0	2
LEX	211	Real Property II	1	4	0	0	3
LEX	220	Corporate Law	2	0	0	0	2
LEX	240	Family Law	2	0	0	0	2
LEX	250	Wills, Estates, & Trusts	2	2	0	0	3
LEX	260	Bankruptcy & Collections	2	0	0	0	2
LEX	270	Law Off. Mgt/Technology	1	1	0	0	2
LEX	271	Law Office Writing	1	2	0	0	2
LEX	280	Ethics & Professionalism	2	0	0	0	2

Other Required Courses

(Select 5.0 hours from the following courses)

BUS	115	Business Law I	3	0	0	0	3
COE	111	Co-op Work Experience I	0	0	0	10	1
COE	112	Co-op Work Experience I	0	0	0	20	2
COE	113	Co-op Work Experience I	0	0	0	30	3
COE	114	Co-op Work Experience I	0	0	0	40	4
COE	121	Co-op Work Exp. II	0	0	0	10	1
COE	122	Co-op Work Exp. II	0	0	0	20	2
COE	123	Co-op Work Exp. II	0	0	0	30	3
COE	124	Co-op Work Exp. II	0	0	0	40	4
COE	131	Co-op Work Exp. III	0	0	0	10	1
COE	132	Co-op Work Exp. III	0	0	0	20	2
COE	133	Co-op Work Exp. III	0	0	0	30	3
COE	134	Co-op Work Exp. III	0	0	0	40	4
COE	211	Co-op Work Exp. IV	0	0	0	10	1
COE	212	Co-op Work Exp. IV	0	0	0	20	2
COE	213	Co-op Work Exp. IV	0	0	0	30	3
COE	214	Co-op Work Exp. IV	0	0	0	40	4
OST	136	Word Processing	2	0	0	0	2

Total Semester Hours Credit:

68-70

Program requirements are subject to further change during this semester transition period.

VETERINARY MEDICAL TECHNOLOGY

Associate In Applied Science Degree

(A45780)-This program is subject to change.

The Veterinary Medical Technology curriculum prepares individuals to assist veterinarians in preparing animals, equipment, and medications for examination and surgery; collecting specimens; performing laboratory, radiographic, anesthetic, and dental procedures; assisting in surgery; and providing proper husbandry of animals and their environment.

Course work includes instruction in veterinary anatomy, nutrition, parasitology, pathology, physiology, radiology, terminology, zoology, office practices, laboratory techniques, dentistry, and small and large animal clinical practices. Students also take courses in English, humanities, psychology, mathematics, chemistry, and computer technology. Graduates may be eligible to take state and national examinations administered by the North Carolina Veterinary Medical Board. Graduates may be employed in veterinary clinics; diagnostic, research, or pharmaceutical laboratories; zoos; academic institutions; or other areas associated with animal care.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111	Expository Writing	3	0	0	3
CHM	130	Gen, Org, & Biochemistry	3	0	0	3
CHM	130A	Gen, Org, & Bio Lab	0	2	0	1
ENG	114	Prof Research & Report	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
Major Courses						
COE	112	Co-op Work Experience I	0	0	20	2
MED	121	Medical Terminology I	3	0	0	3
VET	110	Animal Breeds & Husband	2	2	0	3
VET	120	Vet Anatomy & Phys	3	3	0	4
VET	123	Veterinary Parasitology	2	3	0	3
VET	125	Veterinary Diseases I	2	0	0	2
VET	126	Veterinary Diseases II	1	0	0	1
VET	131	Vet Lab Techniques I	2	3	0	3
VET	133	Vet Clinical Practice I	2	3	0	3
VET	137	Vet Office Practices	1	3	0	2
VET	211	Vet Lab Techniques II	2	3	0	3
VET	212	Vet Lab Techniques III	2	3	0	3
VET	213	Vet Clinical Practice II	1	9	0	4
VET	214	Vet Clinical Practice III	1	9	0	4
VET	217	Large Animal Clin Pract	2	3	0	3
VET	237	Animal Nutrition	3	0	0	3
VET	215	Veterinary Pharmacology	3	0	0	3
VET	191	Seminar/Selected Topic	0	3	0	1
VET	122	Veterinary Zoology	3	3	0	4

Other Required Hours

OST	131	Keyboarding	1	2	0	0	2
Total Semester Hours Credit:							72

Program requirements are subject to further change during this semester transition period.

Diploma Programs

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

Diploma

(D35100)-This program is subject to change.

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

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

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

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	101	Applied Communications I	3	0	0	0	3
MAT	101	Applied Mathematics I	2	2	0	0	3
Major Courses							
AHR	110	Intro to Refrigeration	2	6	0	0	5
AHR	111	HVACR Electricity	2	2	0	0	3
AHR	112	Heating Technology	2	4	0	0	4
AHR	113	Comfort Cooling	2	4	0	0	4
AHR	114	Heat Pump Technology	2	4	0	0	4
AHR	130	HVAC Controls	2	2	0	0	3
AHR	133	HVAC Servicing	2	6	0	0	4
AHR	140	All-Weather Systems	1	3	0	0	2
AHR	160	Refrigerant Certification	1	0	0	0	1
AHR	211	Residential Syst Design	2	2	0	0	3
*Select 2 SHC from the following Courses:							
AHR	215	Comm HVAC Controls	1	3	0	0	2
COE	112	Co-op Work Exp I	0	0	20	0	2
Total Semester Hour Credits:							44

Program requirements are subject to further change during this transition period.

AUTOMOTIVE SYSTEMS TECHNOLOGY

Diploma

(D60160)-This program is subject to change.

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing, and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive-trains.

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

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	101	Applied Comm I	3	0	0	0	3
MAT	101	Applied Mathematics	2	2	0	0	3
Major Courses							
AUT	110	Intro to Auto Technology	2	2	0	0	3
AUT	115	Engine Fundamentals	2	3	0	0	3
AUT	116	Engine Repair	1	3	0	0	2
AUT	141	Suspension /Steering Sys	2	4	0	0	4
AUT	151	Brake Systems	2	2	0	0	3
AUT	152	Brake Systems Lab	0	2	0	0	1
AUT	161	Electrical Systems	2	6	0	0	4
AUT	164	Automotive Electronics	2	3	0	0	3
AUT	171	Heat and Air Condition	2	3	0	0	3
AUT	183	Engine Perform-Fuels	2	3	0	0	3
AUT	184	Engine Peform Fuels-Lab	0	3	0	0	1
AUT	185	Emission Controls.	1	2	0	0	2
AUT	231	Manual Drive Trains/Axles	2	3	0	0	3
AUT	232	Man Drive Trains/Axles-L	0	3	0	0	1
		Total Semester Hour Credits:					42

Program requirements are subject to further change during this transition period.

BROADCASTING PRODUCTION TECHNOLOGY

Diploma in Broadcasting Production Technology

(D30120)-This program is subject to change.

The diploma in radio and television curriculum is designed to offer the student the opportunity to acquire basic skills and the related technical information necessary to gain employment in the non-technical areas of professional broadcasting.

Students that receive a diploma in the program will receive sufficient training to perform duties as an announcer, advertising, sales, copy writing, traffic and log maintenance, news gathering, writing and reporting. The graduate will have basic skills for the industry with a diploma in broadcasting production technology.

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

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
MAT	145	Analytical Math	3	0	0	0	3
RED	111	Crit. Reading for College	3	0	0	0	3
Major Courses							
BPT	110	Intro to Broadcasting	3	0	0	0	3
BPT	111	Broadcast Law & Ethics	3	0	0	0	3
BPT	112	Broadcast Writing	3	2	0	0	4
BPT	113	Broadcast Sales	3	0	0	0	3
BPT	115	Public Relations	3	0	0	0	3
BPT	121	Broadcast Speech I	2	3	0	0	3
BPT	131	Audio/Radio Production I	2	6	0	0	4
BPT	135	Radio Performance I	0	6	0	0	2
BPT	215	Broadcast Programming	3	0	0	0	3
BPT	241	Broadcast Journalism I	3	2	0	0	4
Other Required Courses							
COE	112	Co-op Work Experience I	0	0	0	20	2
Total Semester Hours Credit:							43

Program requirements are subject to further change during this semester transition period.

EARLY CHILDHOOD EDUCATION

Diploma in Early Childhood Education

(D55220)-This program is subject to change.

The Child Care Worker is designed to provide training in addition to that required by beginning workers. It does provide training as required by the State of North Carolina but at a level that helps the teacher learn to diagnose the needs of his/her children and prepare appropriate lessons according to those needs.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	111 Expository Writing	3	0	0	0	3
HUM	115 Critical Thinking	3	0	0	0	3
PSY	150 General Psychology	3	0	0	0	3
Major Courses						
COE	111 Co-op Work Exp. I	0	0	0	10	1
COE	115 Seminar in Observation	1	0	0	0	1
EDU	111 Early Childhood Cred. I	2	0	0	0	2
EDU	112 Early Childhood Cred. II	2	0	0	0	2
EDU	131 Children, Family, & Com	3	0	0	0	3
EDU	146 Child Guidance	3	0	0	0	3
EDU	153 Health, Safety, & Nutr.	3	0	0	0	3
EDU	155 Art & Drama for Children	1	2	0	0	2
EDU	157 Active Play	3	0	0	0	3
EDU	185 Cognitive & Lang. Act.	3	0	0	0	3
EDU	185A Cog. & Lang. Act. Lab	0	2	0	0	1
EDU	221 Children w/Special Needs	3	0	0	0	3
EDU	252 Math & Science Activities	3	0	0	0	3
EDU	252A Math & Science Act. Lab	0	2	0	0	1
ENG	282 Early Childhood Lit.	3	0	0	0	3
PSY	244 Child Development I	3	0	0	0	3
Total Semester Hours Credit:						46

Program requirements are subject to further change during this semester transition period.

ELECTRICAL/ELECTRONICS TECHNOLOGY

Diploma

(D35220)-This program is subject to change.

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

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects specific to local needs.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

	Title	Class	Lab	Clinical	Work	Credits
General Education Courses						
ENG	101 Applied Comm I	3	0	0	0	3
PSY	101 Applied Psychology	3	0	0	0	3
Major Courses						
ELC	112 DC/AC Electricity	3	6	0	0	5
ELC	113 Basic Wiring I	2	6	0	0	4
ELC	114 Basic Wiring II	2	6	0	0	4
ELC	115 Industrial Wiring	2	6	0	0	4
ELC	117 Motors and Controls	2	6	0	0	4
ELC	118 National Electrical Code	1	2	0	0	2
ELC	119 NEC Calculations	1	2	0	0	2
ELC	126 Electrical Computations	2	2	0	0	3
ELC	128 Intro to PLC	2	3	0	0	3
ELC	135 Electrical Machines I	2	2	0	0	3
ELN	131 Electronic Devices	3	3	0	0	4
Total Semester Hour Credits:						44

Program requirements are subject to further change during this transition period.

ELECTRONICS ENGINEERING TECHNOLOGY

Diploma

(D40200)-This program is subject to change.

The primary objective of the Diploma Program of the Electronics Engineering Technology curriculum is to introduce students to the employment opportunities in electronics engineering technology. The objective is fulfilled through the study and application of electronics engineering technology courses. All courses in the diploma can be used in the Electronics Engineering Technology Associate in Applied Science Degree program.

This program can be completed using either a day or evening sequence.

	Title	Class	Lab	Clinical	Work	Credits	
Major Courses							
EGR	115	Intro to Technology	2	6	0	0	4
ELC	128	Intro to PLControl	2	3	0	0	3
ELC	131	DC/AC Circuit Analysys	4	3	0	0	5
ELN	131	Electronic Devices	3	3	0	0	4
ELN	133	Digital Electronics	3	3	0	0	4
ELN	154	Intro to Data Comm	2	3	0	0	3
ELN	232	Intro to Microprocessors	3	3	0	0	4
MAT	122	Algebra & Trig II	2	2	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
MAT	121	Algebra & Trig I	2	2	0	0	3
Total Semester Hour Credits:						40	

Program requirements are subject to further change during this semester transition period.

ELECTRONICS SERVICING TECHNOLOGY

Diploma

(D50120)-This program is subject to change.

The Electronic Servicing Technology curriculum is designed to provide basic knowledge and skills required in the installation, maintenance, and servicing of electronic components and systems. Men and women will gain entry level skills necessary for success in an ever changing high-technology world.

Students will learn to install, maintain, and service components in both consumer and industrial electronic fields. This includes, but is not limited to, radios, televisions, audio/video equipment, digital and microprocessor controlled systems, computers, and monitors.

Graduates should qualify for employment in a wide variety of businesses and industries that require electronic servicing technicians. Opportunities exist in areas such as consumer electronic repairs, business systems, and industrial electronic servicing.

	Title	Class	Lab	Clinical	Work	Credits	
General Education Courses							
ENG	101	Applied Comm I	3	0	0	3	
MAT	101	Applied Mathematics	2	2	0	3	
Major Courses							
ELC	140	Fund of DC/AC Circuit	5	6	0	7	
ELN	140	Semiconductor Devices	4	6	0	6	
ELN	141	Digital Fundamentals	4	6	0	6	
ELN	143	Television Servicing	4	6	0	6	
ELN	229	Industrial Electronics	2	4	0	4	
ELN	240	Microprocessor Fund	3	3	0	4	
ELN	244	Computer Repair	3	6	0	5	
*Select 3 SHC from the following courses							
ELN	246	Cert Elect Tech Prep	3	0	0	3	
COE	113	Co-Op Work Exp I	0	0	0	30	3
Total Semester Hour Credits:						47	

Program requirements are subject to further change during this transition period.

INDUSTRIAL MAINTENANCE TECHNOLOGY

Diploma

(D50240)-This program is subject to change.

The Industrial maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes the theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized, additional advanced course work may be offered.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	101	Applied Comm I	3	0	0	0	3
MAT	101	Applied Mathematics	2	2	0	0	3
Major Courses							
AHR	120	HVACR Maintenance	1	3	0	0	2
BPR	111	Blueprint Reading	1	2	0	0	2
CIS	111	Basic PC Literacy	1	2	0	0	2
ELC	111	Intro to Electricity	2	2	0	0	3
ELC	112	DC/AC Electricity	3	6	0	0	5
ELC	113	Basic Wiring I	2	6	0	0	4
ELC	117	Motors and Controls	2	6	0	0	4
HYD	110	Hydraulics/Pneumatics I	2	3	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
MEC	111	Machine Processes I	2	3	0	0	3
MNT	110	Intro to Maint Procedures	1	3	0	0	2
MNT	230	Pumps & Piping Systems	1	3	0	0	2
WLD	112	Basic Welding Processes	1	3	0	0	2
PLC	128	Intro to PLC	1	3	0	0	2
*Select 2 SHC from the following courses							
MNT	111	Machine Practices	1	3	0	0	2
COE	112	Co-Op Work Exp I	0	0	0	20	2
Total Semester Hour Credits:							47

Program requirements are subject to further change during this transition period.

MACHINING TECHNOLOGY

Diploma

(D50300)-This program is subject to change.

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment, and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations, and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies, and a wide range of specialty machining job shops.

Title		Class	Lab	Clinical	Work	Credits	
General Education Courses							
ENG 101 Applied Comm I		3	0	0	0	3	
MAT 120 Geom and Trigonometry		2	2	0	0	3	
Major Courses							
BPR	111	Blueprint Reading	1	2	0	0	2
MAC	111	Machining Technology I	2	12	0	0	6
BPR	121	Blueprint Read: MechI	1	2	0	0	2
MAC	112	Machining Technology II	2	12	0	0	6
MAC	113	Machining Technology III	2	12	0	0	6
MAC	114	Intro to Metrology	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2
MAC	121	Intro to CNC	2	0	0	0	2
MAC	222	Advance CNC Turning	1	3	0	0	2
MAC	124	CNC Milling	1	3	0	0	2
MAC	232	CNC Graphics Prog:Mill	1	4	0	0	3
Total Semester Hour Credits:						41	

Program requirements are subject to further change during this transition period.

MECHANICAL ENGINEERING TECHNOLOGY

Diploma

(D40320)-This program is subject to change.

The primary objective of the Diploma Program of the Electronics Engineering Technology curriculum is to introduce students to the employment opportunities in electronics engineering technology. The objective is fulfilled through the study and application of electronics engineering technology courses. All courses in the diploma can be used in the Electronics Engineering Technology Associate in Applied Science Degree program.

This program can be completed using either a day or evening sequence.

		Title	Class	Lab	Clinical	Work	Credits
Major Courses							
ATR	112	Intro to Automation	2	3	0	0	3
CSC	129	Technical Programing	2	3	0	0	4
DFT	111	Technical Drafting I	2	6	0	0	4
DFT	151	CAD I	2	3	0	0	3
EGR	115	Intro to Technology	2	6	0	0	4
MAT	122	Algebra & Trig II	2	2	0	0	3
MEC	111	Machine Processes I	2	3	0	0	3
MEC	180	Engineering Materials	2	3	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
MAT	121	Algebra & Trig I	2	2	0	0	3
Electives Courses (Select 6 semester hour credits)							
DFT	112	Technical Drafting	2	6	0	0	4
DFT	231	Jig & Fixture Design	1	2	0	0	2
HYD	110	Hydraulics/Pneumatics I	2	3	0	0	3
MEC	161	Manufacturing Processes I	3	0	0	0	3
MEC	281	Elect. Mnft. Mfg. Processes	3	3	0	0	4
MEC	283	Intro to CAM	2	3	0	0	3
PLA	120	Injection Molding	2	3	0	0	3
PLA	162	Plastics Mnft.	2	3	0	0	3
PLA	230	Adv. Plastic Mfg.	3	3	0	0	4
Total Semester Hour Credits:							43

Program requirements are subject to further change during this semester transition period.

OFFICE SYSTEMS TECHNOLOGY-GENERAL

Diploma

(D25360)-This program is subject to change.

The Office Systems Technology-General curriculum is designed for the individual entering, upgrading, or retraining in the office occupations. Special emphasis is on basic office duties and responsibilities for the computerized workplace.

Study in areas such as keyboarding, oral and written communication, word processing, and machine transcription will enable the individual to function effectively as a receptionist, general office technician, or computer operator.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
ENG	114	Prof Research & Report	3	0	0	0	3
BUS	121	Business Math	2	2	0	0	3
Major Courses							
OST	131	Keyboarding	1	2	0	0	2
OST	134	Text Entry/Formatting	3	2	0	0	4
BUS	110	Introduction to Business	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
OST	164	Text Editing Applications	3	0	0	0	3
BUS	260	Business Communications	3	0	0	0	3
OST	286	Professional Development	2	0	0	0	2
OST	223	Machine Transcription I	1	2	0	0	2
OST	136	Word Processing	1	2	0	0	2
OST	236	Adv. Word/Info Process.	2	2	0	0	3
OST	289	Office Systems Mgt.	2	2	0	0	3
OST	184	Records Management	1	2	0	0	2
(Select 3 hours)							
ACC	120	Principles of Accounting I	3	2	0	0	4
BUS	115	Business Law I	3	0	0	0	3
BUS	125	Personal Finance	3	0	0	0	3
BUS	225	Business Finance	2	2	0	0	3
CIS	162	Multimedia Pres. Software	2	2	0	0	3
CIS	172	Intro to the Internet	2	3	0	0	3
CIS	216	Software Install/Maint.	1	2	0	0	2
COE	111	Work Experience I	0	0	0	10	1
COE	121	Work Experience II	0	0	0	10	1
COE	131	Work Experience III	0	0	0	10	1
COE	112	Work Experience I	0	0	0	20	2
COE	122	Work Experience II	0	0	0	20	2
COE	132	Work Experience III	0	0	0	20	2
ECO	151	Survey of Economics	3	0	0	0	3
NET	110	Data Comm/Networking	2	2	0	0	3
OST	132	Keyboard Skill Building	1	2	0	0	2
OST	284	Emerging Technologies	2	0	0	0	2
Total Semester Hours Credit:							44

Program requirements are subject to further change during this transition period.

PRACTICAL NURSING

Diploma

(D45660)-This program is subject to change.

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults. Students will participate in assessment, planning, implementing, and evaluating nursing care. Graduates are eligible to apply to take the National Council Licensure Examination which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long-term care/home health facilities, clinics, and physicians' offices.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	111	Expository Writing	3	0	0	0	3
PSY	110	Life Span Development	3	0	0	0	3
Major Courses							
NUR	101	Practical Nursing I	7	6	6	0	11
NUR	102	Practical Nursing II	8	0	12	0	12
NUR	103	Practical Nursing III	6	0	12	0	10
BIO	163	Basic Anat & Physiology	4	2	0	0	5
NUR	117	Pharmacology	1	3	0	0	2
NUR	118	Nutrition/Diet Therapy	2	0	0	0	2
Total Semester Hours Credit:							48

Program requirements are subject to further change during this semester transition period.

WELDING TECHNOLOGY

Diploma

(D50420)-This program is subject to change.

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 provide 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.

		Title	Class	Lab	Clinical	Work	Credits
General Education Courses							
ENG	101	Applied Comm I	3	0	0	0	3
MAT	101	Applied Mathematics I	2	2	0	0	3
Major Courses							
BPR	111	Blueprint Reading	1	2	0	0	2
WLD	110	Cutting Processes	1	3	0	0	2
WLD	115	SMAW (Stick) Plate	2	9	0	0	5
WLD	116	SMAW (Stick) Plate/Pipe	1	9	0	0	4
WLD	121	GMAW (MIG)FCAW/Plate	2	6	0	0	4
WLD	131	GTAW (TIG) Plate	2	6	0	0	4
WLD	141	Symbols & Specifications	2	2	0	0	3
WLD	151	Fabrication I	2	6	0	0	4
WLD	261	Certification Practices	1	3	0	0	2
Total Semester Hour Credits:							36

Program requirements are subject to further change during this transition period.

Department of Education
Office of the Registrar
101 California Hall
Berkeley, California 94720-1600
Tel: (415) 848-4100
Fax: (415) 848-4101
www.registrar.universityofcalifornia.edu

Certificate Programs

AIR CONDITIONING, HEATING & REFRIGERATION

Heating Certificate

(C35100)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the air condition industry.

The courses taken in this certificate program count as credit toward the air condition diploma level program..

		Title	Class	Lab	Clinical	Work	Credits
AHR	112	Heating Technology	2	4	0	0	4
AHR	111	HVACR Electricity	2	2	0	0	3
AHR	130	HVAC Controls	2	2	0	0	3
AHR	140	All Weather Systems I	3	0	0	0	2
Total Semester Hours Credit:							12

Program requirements are subject to further change during this transition period.

AIR CONDITIONING, HEATING & REFRIGERATION

Heat Pump Certification

(C35100)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the air condition industry.

The courses taken in this certificate program count as credit toward the air condition diploma level program..

		Title	Class	Lab	Clinical	Work	Credits
AHR	110	Intro to Refrigeration	2	6	0	0	5
AHR	111	HVACR Electricity	2	2	0	0	3
AHR	130	HVAC Controls	2	2	0	0	3
AHR	114	Heat Pump Technology	2	4	0	0	4
AHR	160	Refrigerant Certification	1	0	0	0	1
		Total Semester Hours Credit:					16

Program requirements are subject to further change during this transition period.

AIR CONDITIONING, HEATING & REFRIGERATION TECHNOLOGY

Cooling Certificate

(C35100)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the air condition industry.

The courses taken in this certificate program count as credit toward the air condition diploma level program..

		Title	Class	Lab	Clinical	Work	Credits
AHR	110	Intro to Refrigeration	2	6	0	0	5
AHR	111	HVACR Electricity	2	2	0	0	3
AHR	130	HVAC Controls	2	2	0	0	3
AHR	133	HVAC Servicing	3	0	0	0	2
AHR	160	Refrigerant Certification	1	0	0	0	1
		Total Semester Hours Credit:					16

Program requirements are subject to further change during this transition period.

ARCHITECTURAL TECHNOLOGY

Architectural Certification CAD

(C40100)-This program is subject to change.

The purpose of this certificate is to provide an opportunity for individuals who want to fulfill professional or general interest needs.

The courses taken in this certificate program count as credit toward the full Architectural Technology AAS degree.

		Title	Class	Lab	Clinical	Work	Credits
ARC	114	Arch CAD	1	3	0	0	2
ARC	220	Advanced Arch CAD	1	3	0	0	2
ARC	221	Arch 3-D CAD	1	4	0	0	3
CIS	111	Basic PC Literacy	1	2	0	0	2
EGR	115	Intro to Technology	2	6	0	0	4
Total Semester Hour Credits:							13

Program requirements are subject to further change during this transition period.

AUTOMOTIVE SYSTEMS TECHNOLOGY

Certificate Program Automotive Engines and Power Trains

(C60160)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the automotive industry.

It is recommended that students have the necessary math and reading skills before enrollment in this program.

The courses taken in this certificate program can be counted toward the automotive diploma or AAS program.

		Title	Class	Lab	Clinical	Work	Credits
AUT	115	Engine Fundamentals	2	3	0	0	3
AUT	116	Engine Repair	1	3	0	0	2
AUT	231	Manual Drive Trains/Axles	2	3	0	0	3
AUT	221	Automatic Transmissions	2	6	0	0	4
TOTAL HOURS							12

Program requirements are subject to further change during this transition period.

AUTOMOTIVE SYSTEMS TECHNOLOGY

Certificate Program Automotive Fuel and Electrical Systems

(C60160)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the automotive industry.

It is recommended that students have the necessary math and reading skills before enrollment in this program.

The courses taken in this certificate program can be counted toward the automotive diploma or AAS program.

		Title	Class	Lab	Clinical	Work	Credits
AUT	163	Automotive Electronics	2	3	0	0	3
AUT	161	Electrical Systems	2	6	0	0	4
AUT	182	Engine Performance Fuels	2	6	0	0	4
AUT	181	Engine Performance Electrical	2	6	0	0	4
TOTAL HOURS							15

Program requirements are subject to further change during this transition period.

BASIC COMPUTER SKILLS

Certificate

(C25260)-This program is subject to change.

The primary objective of the Certificate in Basic Computer Skills is to offer computer literacy and knowledge. This objective will be accomplished through the study of the various application packages currently being used on microcomputers today.

	Title	Class	Lab	Clinical	Work	Credits	
Major Courses							
CIS	110	Introduction to Computers	2	2	0	0	3
CIS	120	Spreadsheet I	2	2	0	0	3
CIS	144	Operating System - DOS	2	2	0	0	3
CIS	147	Operating Sys. - Windows	2	2	0	0	3
CIS	152	Database Concepts & App	2	2	0	0	3
OST	131	Keyboarding	1	2	0	0	2
OST	136	Word Processing	1	2	0	0	2
	Total Semester Hours Credit:						19

Program requirements are subject to further change during this transition period.

BASIC LAW ENFORCEMENT TRAINING

Certificate

(C55120)-This program is subject to change.

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.

	Title	Class	Lab	Clinical	Work	Credits
Major Courses						
CJC 100	Basic Law Enforc Training	9	27	0	0	18
	Total Semester Hour Credits					18

Program requirements are subject to further change during this transition period.

CHILD DEVELOPMENT ASSOCIATE PREPARATION

Certificate in Child Development Associate Preparation

(C55220)-This program is subject to change.

The Certificate in Child Development Associate Preparation readies students for initial experience working with preschool children. It provides instruction in a variety of basic ideas and activities for application in a classroom setting. The classes are designed to meet the training requirements of the State of North Carolina and Head Start and to provide opportunity for advanced training upon completion.

	Title	Class	Lab	Clinical	Work	Credits
Major Courses						
COE	111	Co-op Work Exp. I	0	0	10	1
COE	115	Seminar in Observation	1	0	0	1
EDU	111	Early Childhood Cred. I	2	0	0	2
EDU	112	Early Childhood Cred. II	2	0	0	2
EDU	146	Child Guidance	3	0	0	3
EDU	153	Health, Safety, & Nutr.	3	0	0	3
EDU	261	Child Care Admin. I	2	0	0	2
EDU	288	Adv.Issues In Early Child.	2	0	0	2
		Total Semester Hours Credit:				16

Program requirements are subject to further change during this semester transition period.

CIVIL ENGINEERING TECHNOLOGY

Certificate

(C40140)-This program is subject to change.

The primary objective of the Certificate Program of the Civil Engineering Technology curriculum is to introduce students to the employment opportunities in civil engineering technology generally and to surveying in particular. The objective is fulfilled through the study and application of civil engineering technology courses. All courses in the certificate can be used in the Civil Engineering Technology Associate in Applied Science Degree program.

This program can be completed using a day sequence.

	Title	Class	Lab	Clinical	Work	Credits	
Major Courses							
EGR	115	Intro to Technology	2	6	0	0	4
ENG	111	Expository Writing	3	0	0	0	3
MAT	121	Algebra & Trigonometry I	2	2	0	0	3
SRV	110	Surveying I	2	6	0	0	4
SRV	111	Surveying II	2	6	0	0	4
	Total Semester Hour Credits:						18

Program requirements are subject to further change during this semester transition period.

INDUSTRIAL ENGINEERING TECHNOLOGY

Certificate

(C40240)-This program is subject to change.

The primary objective of the Certificate Program of the Industrial Engineering Technology curriculum is to introduce students to the employment opportunities in industrial engineering technology. The objective is fulfilled through the study and application of industrial engineering technology courses. All courses in the certificate can be used in the Industrial Engineering Technology Associate in Applied Science Degree program.

This program can be completed using either a day or evening sequence.

		Title	Class	Lab	Clinical	Work	Credits
Major Courses							
ISC	112	Industrial Safety	2	0	0	0	2
ISC	132	Mfg Quality Control	2	3	0	0	3
ISC	136	Productivity Analysis I	2	3	0	0	3
MEC	145	Manufacturing Materials I	2	3	0	0	3
Electives (Select 2 courses)							
DFT	170	Engineering Graphics	2	2	0	0	3
ISC	236	Productivity Analysis II	2	3	0	0	3
ISC	255	Engineering Economy	2	2	0	0	3
MEC	245	Manufacturing Materials II	2	3	0	0	3
Total Semester Hour Credits:							17

Program requirements are subject to further change during this semester transition period.

INDUSTRIAL MAINTENANCE MECHANICS

Basic Industrial Maintenance Technician Certificate

(C50240)-This program is subject to change.

This curriculum is designed to give the individual basic skills and related information needed to gain limited employment in the Industrial Maintenance field.

The courses taken in this certificate program count as credit toward the full Industrial Maintenance diploma program.

		Title	Class	Lab	Clinical	Work	Credits
BPR	111	Blueprint Reading	1	2	0	0	2
ELC	111	Intro to Electricity	2	0	0	0	3
HYD	110	Hydraulics/Pneumatics I	2	3	0	0	3
MEC	111	Machine Processes I	2	3	0	0	3
MNT	110	Intro to Maint Practices	1	3	0	0	2
WLD	112	Basic Welding Processes	1	3	0	0	2
		Total Semester Hour Credits:					15

Program requirements are subject to further change during this transition period.

INDUSTRIAL MANAGEMENT TECHNOLOGY

Certificate

(C50260)-This program is subject to change.

The primary objective of the Certificate Program of the Industrial Management Technology curriculum is to introduce students to the employment opportunities in industrial management technology. The objective is fulfilled through the study and application of industrial management technology courses. All courses in the certificate can be used in the Industrial Management Technology Associate in Applied Science Degree program.

This program can be completed using either a day or evening sequence.

	Title	Class	Lab	Clinical	Work	Credits
Major Courses						
ISC	112	Industrial Safety	2	0	0	2
ISC	132	Mfg Quality Control	2	3	0	3
ISC	135	Prin of Industrial Mgmt	3	0	0	3
ISC	243	Prod & Operations Mgmt I	2	3	0	3
Electives (Select 2 courses)						
ISC	233	Industrial Org & Mgmt	3	0	0	3
ISC	235	Management Problems	3	0	0	3
ISC	244	Prod & Operations Mgmt II	2	3	0	3
ISC	255	Engineering Economy	2	2	0	3
	Total Semester Hour Credits:					17

Program requirements are subject to further change during this semester transition period.

MACHINING TECHNOLOGY

Certificate Program Basic Machine Tool

(C50300)-This program is subject to change.

This curriculum is designed to give an individual the necessary skills to operate and program (CNC) Computer Numerical Control Turning Centers, manual lathes and mills.

It is recommended that students have the necessary math and reading skills before enrollment in this program.

The courses taken in this certificate program can be counted toward the machinist diploma or AAS program.

		Title	Class	Lab	Clinical	Work	Credits
BPR	111	Blueprint Reading	1	2	0	0	2
MAC	111	Machining Technology I	2	12	0	0	6
MAC	114	Intro to Metrology	2	0	0	0	2
MAC	121	Intro to CNC	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2
		TOTAL HOURS					14

Program requirements are subject to further change during this transition period.

MACHINING TECHNOLOGY

Certificate Program (CNC) Computer Numerical Control Programming

(C50300)-This program is subject to change.

This curriculum is designed to give an individual entry level skills needed to gain employment as a machinist or (CNC) Computer Numerical Control programmer.

It is recommended that students have the necessary math and reading skills before enrollment in this program.

The courses taken in this certificate program can be counted toward the machinist diploma or AAS program.

		Title	Class	Lab	Clinical	Work	Credits
BPR	111	Blueprint Reading	1	2	0	0	2
BPR	121	Blueprint Reading: Mech	1	2	0	0	2
MAC	121	Intro to CNC	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2
MAC	124	CNC Milling	1	3	0	0	2
MAC	232	CNC Graphics Prog: Milling	1	4	0	0	3
		TOTAL HOURS					13

Program requirements are subject to further change during this transition period.

MECHANICAL DRAFTING TECHNOLOGY

Mechanical Certificate CAD

(C40320)-This program is subject to change.

The purpose of this certificate is to provide an opportunity for individuals who want to fulfill professional or general interest needs.

The courses taken in this certificate program count as credit toward the full Mechanical Drafting Technology AAS degree.

		Title	Class	Lab	Clinical	Work	Credits
CIS	111	Basic PC Literacy	1	2	0	0	2
DFT	151	CAD I	2	3	0	0	3
DFT	152	CAD II	2	3	0	0	3
DFT	153	CAD III	2	3	0	0	3
MEC	111	Machine Processes I	2	3	0	0	3
Total Semester Hour Credits:							14

Program requirements are subject to further change during this transition period.

NURSING ASSISTANT

Certificate

(C45480)-This program is subject to change.

The Nursing Assistant curriculum prepares individuals to work under the supervision of licensed health care professionals in performing nursing care and services for persons of all ages.

Course work emphasizes growth and development throughout the life span, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management; family resources and services; and employment skills.

Graduates of this curriculum may be eligible to be listed on the registry as a Nursing Assistant I and Nursing Assistant II. They may be employed in home health agencies, hospitals, clinics, nursing homes, extended care facilities, and doctors' offices.

		Title	Class	Lab	Clinical	Work	Credits
Major Courses							
NAS	101	Nursing Assistant I	3	2	3	0	5
NAS	102	Nursing Assistant II	3	2	6	0	6
NAS	103	Home Health Care	2	0	0	0	2
NAS	104	Home Health Clinical	0	0	3	0	1
NAS	105	Life Span Changes	2	0	0	0	2
		Total Semester Hours Credit:					16

Program requirements are subject to further change during this semester transition period.

PHLEBOTOMY

Certificate

(C45600)-This program is subject to change.

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.

		Title	Class	Lab	Clinical	Work	Credits
Major Courses							
PBT	100	Phlebotomy Technology	5	2	0	0	6
PBT	101	Phlebotomy Practicum	0	0	9	0	3
PSY	102	Human Relations	3	0	0	0	3
		Total Semester Hours Credit:					12

Program requirements are subject to further change during this semester transition period.

Course Descriptions

How to Read the Course Descriptions

	Course Number	Course Title	
Subject	NUR	101	Concepts of Basic Nursing
			15-4-3-8

Class hours per week _____

Lab hours per week _____

Clinical hours per week _____

Credit hours per semester _____

Accounting

ACA 118 College Study Skills (1-2-0-2)

Prerequisites: None

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

ACC 120 Prin Of Accounting I (3-2-0-4)

Prerequisites: None

This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle.

ACC 121 Prin of Accounting II (3-2-0-4)

Prerequisites: None

This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management.

ACC 129 Individual Income Taxes (2-2-0-3)

Prerequisites: None

This course introduces the relevant laws governing individual income taxation. Emphasis is placed on filing status, exemptions for dependents, gross income, adjustments, deductions, and computation of tax. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 130 Business Income Taxes (2-2-0-3)

Prerequisites: None

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax depreciation, accounting periods and methods, corporations, partnerships, S corporations, estates and trusts, and gifts. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

ACC 149 Intro to Acc Spreadsheets (3-0-0-3)

Prerequisites: 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 Computerized Gen Ledger (1-2-0-2)

Prerequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 151 Acct Spreadsheet Appl (1-2-0-2)

Prerequisites: None

This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. 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 170 Technical Accounting (2-3-0-3)

Prerequisites: None

This course introduces the use of accounting for decision making and covers integration of financial accounting with managerial concepts. Topics include essentials of financial accounting and analysis, product costing, activity-based costing systems, budgeting, and financial planning. Upon completion, students should be able to understand and develop financial statements and demonstrate an understanding of accounting transactions and product costing systems.

ACC 220 Intermediate Accounting I (3-2-0-4)

Prerequisites: 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 statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

ACC 221 Intermediate Acct II (3-2-0-4)

Prerequisites: None

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 225 Cost Accounting (3-0-0-3)

Prerequisites: 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 comple-

tion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 226 Managerial Accounting (3-0-0-3)

Prerequisites: None

This course is designed to develop an appreciation for the uses of cost information in the administration and control of business organizations. Emphasis is placed on how accounting data can be interpreted and used by management in planning and controlling business activities. Upon completion, students should be able to analyze and interpret cost information and present this information in a form that is usable by management.

ACC 269 Auditing (3-0-0-3)

Prerequisites: None

This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

Air Conditioning, Heating and Refrigeration (Also see Electrical Installation and Maintenance ELC)

AHR 110 Intro to Refrigeration (2-6-0-5)

Prerequisites: 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

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

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

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 psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR 114 Heat Pump Technology (2-4-0-4)

Prerequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 120 HVACR Maintenance (1-3-0-2)

Prerequisites: 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: 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: None

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: 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 160 Refrigerant Certification (1-0-0-1)

Prerequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small

appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 211 Residential System Design (2-2-0-3)

Prerequisites: 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 215 Commercial HVAC Controls (1-3-0-2)

Prerequisites: 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.

Anthropology

ANT 196 SEMINAR IN ANTHROPOLOGY (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ANT 197 SEMINAR IN ANTHROPOLOGY (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ANT 198 SEMINAR IN ANTHROPOLOGY (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ANT 210 General Anthropology (3-0-0-3)

Prerequisites: None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology,

and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology.

ANT 220 Cultural Anthropology (3-0-0-3)

Prerequisites: None

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.

ANT 221 Comparative Cultures (3-0-0-3)

Prerequisites: None

This course provides an ethnographic survey of societies around the world covering their distinctive cultural characteristics and how these relate to cultural change. Emphasis is placed on the similarities and differences in social institutions such as family, economics, politics, education, and religion. Upon completion, students should be able to demonstrate knowledge of a variety of cultural adaptive strategies.

ANT 230 Physical Anthropology (3-0-0-3)

Prerequisites: None

This course introduces the scientific study of human evolution and adaptation. Emphasis is placed on evolutionary theory, population genetics, biocultural adaptation and human variation, as well as non-human primate evolution, morphology, and behavior. Upon completion, students should be able to demonstrate an understanding of the biological and cultural processes which have resulted in the formation of the human species.

ANT 240 Archaeology (3-0-0-3)

Prerequisites: None

This course introduces the scientific study of the unwritten record of the human past. Emphasis is placed on the process of human cultural evolution as revealed through archaeological methods of excavation and interpretation. Upon completion, students should be able to demonstrate an understanding of how archaeologists reconstruct the past and describe the variety of past human cultures.

Architecture

ARC 111 Intro to Arch Technology (1-6-0-3)

Prerequisites: None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Constr Matls & Methods (3-2-0-4)

Prerequisites: None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 112T Constr Matls & Methods (3-6-0-5)

Prerequisites: None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties. Due to the conversion to semester, for this group of students, the prerequisites for the above course will not be met due to new course name and organization of material. Extra time is to be spent during lecture, and lab to allow this specific group of students to meet new course competencies so as to be prepared to meet course prerequisites for upcoming courses this fall. This will enable the students to graduate on schedule without penalty for having been involved in the semester conversion.

ARC 113 Residential Arch Tech (1-6-0-3)

Prerequisites: None

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD (1-3-0-2)

Prerequisites: None

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 119 Structural Drafting (2-2-0-3)

Prerequisites: None

This course introduces basic concepts associated with sizing and detailing structural assemblies. Topics include vocabulary, span-to-depth ratios, code requirements, shop drawings, and other related topics. Upon completion, students should be able to perform simple calculations and prepare shop drawings and preliminary structural plans.

ARC 119T Structural Drafting (3-3-0-4)

Prerequisites: None

This course introduces basic concepts associated with sizing and detailing structural assemblies. Topics include vocabulary, span-to-depth ratios, code requirements, shop drawings, and other re-

lated topics. Upon completion, students should be able to perform simple calculations and prepare shop drawings and preliminary structural plans. Due to the conversion to semester, for this group of students, the prerequisites for the above course will not be met due to new course names and organization of material. Extra time is to be spent during lecture, and lab to allow this specific group of students to meet new course competencies so as to be prepared to meet course prerequisites for upcoming courses this fall. This will enable the students to graduate on schedule without penalty for having been involved in the semester conversion.

ARC 131 Building Codes (2-2-0-3)

Prerequisites: None

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

ARC 141 Elem Structures for Arch (4-0-0-4)

Prerequisites: None

This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

ARC 211 Light Constr Technology (1-6-0-3)

Prerequisites: None

This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards.

ARC 213 Design Project (2-6-0-4)

Prerequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Adv Architect CAD (1-3-0-2)

Prerequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 220T Adv Architect CAD (3-3-0-4)

Prerequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis

is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands. Due to the conversion to semester, for this group of students, the prerequisites for the above courses will not be met due to new course names and organization of material. Extra time is to be spent during lecture, and lab to allow this specific group of students to meet new course competencies so as to be prepared to meet course prerequisites for upcoming courses this fall. This will enable the students to graduate on schedule without penalty for having been involved in the semester conversion.

ARC 221 Architectural 3-D CAD (1-4-0-3)
Prerequisites: None

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

ARC 230 Environmental Systems (3-3-0-4)
Prerequisites: None

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC 241 Contract Administration (1-2-0-2)
Prerequisites: None

This course covers the techniques for reviewing the progress of construction projects. Topics include site observations, field reports, applications for payment, change orders, and other related topics. Upon completion, students should be able to review construction progress and produce appropriate documentation.

Art

ART 111 Art Appreciation (3-0-0-3)
Prerequisites: 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.

ART 114 Art History Survey I (3-0-0-3)
Prerequisites: 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.

ART 115 Art History Survey II (3-0-0-3)

Prerequisites: 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.

ART 121 Design I (1-4-0-3)

Prerequisites: 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.

ART 121T ILLUSTRATION (0-6-0-2)

Prerequisites: 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 will no longer be a course in our program. It is being offered this last time for several students who need this course to finish the Commercial Art Certificate Program under the old quarter system program.

ART 122 Design II (1-4-0-3)

Prerequisites: 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.

ART 131 Drawing I (0-6-0-3)

Prerequisites: 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.

ART 132 Drawing II (0-6-0-3)

Prerequisites: 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.

ART 135 Figure Drawing I (0-6-0-3)

Prerequisites: 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.

ART 212 Gallery Assistantship I (0-2-0-1)

Prerequisites: 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.

ART 213 Gallery Assistantship II (0-2-0-1)

Prerequisites: None

This course provides additional experience in display techniques. Emphasis is placed on preparation of artwork for exhibition, alternative methods of installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate independent decision-making and exhibition expertise.

ART 214 Portfolio and Resume (0-2-0-1)

Prerequisites: None

This course covers resume writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to resume writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective resume.

ART 231 Printmaking I (0-6-0-3)

Prerequisites: 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.

ART 232 Printmaking II (0-6-0-3)

Prerequisites: 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.

ART 240 Painting I (0-6-0-3)

Prerequisites: 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.

ART 241 Painting II (0-6-0-3)

Prerequisites: None

This course provides a continuing investigation of the materials, processes, and techniques of

painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.

ART 244 Watercolor (0-6-0-3)

Prerequisites: 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 nontraditional concepts used in watercolor media.

ART 247 Jewelry I (0-6-0-3)

Prerequisites: 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.

ART 248 Jewelry II (0-6-0-3)

Prerequisites: 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.

ART 261 Photography I (1-4-0-3)

Prerequisites: 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.

ART 262 Photography II (1-4-0-3)

Prerequisites: 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.

ART 275 Intro to Commercial Art (0-6-0-3)

Prerequisites: 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.

ART 281 Sculpture I (0-6-0-3)

Prerequisites: 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 variety of sculptural approaches.

ART 282 Sculpture II (0-6-0-3)

Prerequisites: 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.

ART 283 Ceramics I (0-6-0-3)

Prerequisites: 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.

ART 284 Ceramics II (0-6-0-3)

Prerequisites: 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.

ART 285 Ceramics III (0-6-0-3)

Prerequisites: 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.

ART 286 Ceramics IV (0-6-0-3)

Prerequisites: None

This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student's artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium.

ART 288 Studio (0-6-0-3)

Prerequisites: 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.

Automation Training

ATR 112 Intro to Automation (2-3-0-3)

Prerequisites: None

This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems. Additional topics include automated assembly systems and production economics.

ATR 211 Robot Programming (2-3-0-3)

Prerequisites: None

This course provides the operational characteristics of industrial robots and programming in their respective languages. Topics include robot programming utilizing teach pendants, PLCs, and personal computers; and the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots. Additional topics include artificial intelligence simulation and off-line programming.

Automotive Technology

AUT 110 Intro to Auto Technology (2-2-0-3)

Prerequisites: None

This course covers the basic concepts and terms of automotive technology, workplace safety, North Carolina state inspection, safety and environmental regulations, and use of service information resources. Topics include familiarization with components along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe terms associated with automobiles, identify and use basic tools and shop equipment, and conduct North Carolina safety/emissions inspections.

AUT 113 Automotive Servicing (2-6-0-4)

Prerequisites: None

This course covers diagnostic procedures necessary to determine the nature and cause of auto service problems and the procedures used to repair/replace components. Emphasis is placed on troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a va-

riety of automotive repairs using proper service procedures and operate appropriate equipment.

AUT 115 Engine Fundamentals (2-3-0-3)

Prerequisites: None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 116 Engine Repair (1-3-0-2)

Prerequisites: None

This course covers service/repair/rebuilding of block, head, and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.

AUT 141 Suspension & Steering Sys (2-4-0-4)

Prerequisites: None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

AUT 151 Brake Systems (2-2-0-3)

Prerequisites: None

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

AUT 152 Brake Systems Lab (0-2-0-1)

Prerequisites: None

This course provides a laboratory setting to enhance brake system skills. Emphasis is placed on practical experiences that enhance the topics presented in AUT 151. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 151.

AUT 161 Electrical Systems (2-6-0-4)

Prerequisites: None

This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components of an automobile.

AUT 164 Automotive Electronics (2-2-0-3)

Prerequisites: None

This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multi-meters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multi-meters and appropriate service information.

AUT 171 Heating & Air Conditioning (2-3-0-3)

Prerequisites: None

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

AUT 181 Engine Performance-Electrical (2-3-0-3)

Prerequisites: None

This course covers the principles, systems, and procedures required for diagnosing and restoring engine performance using electrical/electronics test equipment. Topics include procedures for diagnosis and repair of ignition, emission control, and related electronic systems. Upon completion, students should be able to describe operation of and diagnose/repair ignition/emission control systems using appropriate test equipment and service information.

AUT 182 Engine Perfor-Elec Lab (0-3-0-1)

Prerequisites: None

This course provides a laboratory setting to enhance the skills for diagnosing and restoring engine performance using electrical/electronics test equipment. Emphasis is placed on practical experiences that enhance the topics presented in AUT 181. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 181.

AUT 183 Engine Performance-Fuels (2-3-0-3)

Prerequisites: None

This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

**AUT 184 Engine Perfor-Fuels
Lab (0-3-0-1)**

Prerequisites: None

This course provides a laboratory setting to enhance the skills for diagnosing and repairing fuel delivery/management and emission systems. Emphasis is placed on practical experiences that enhance the topics presented in AUT 183. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 183.

AUT 185 Emission Controls (1-2-0-2)

Prerequisites: None

This course covers the design and function of emission control devices. Topics include chemistry of combustion as well as design characteristics and emission control devices which limit tailpipe, crankcase, and evaporative emissions. Upon completion, students should be able to troubleshoot, test, and service emission control systems.

**AUT 186 Automotive
Computer Appl (1-2-0-2)**

Prerequisites: None

This course introduces computer operating systems, word processing, and electronic automotive service information systems. Emphasis is placed on operation systems, word processing, and electronic automotive service information systems. Upon completion, students should be able to use an operating system to access information pertaining to automotive technology and perform word processing.

**AUT 221 Automatic
Transmissions (2-6-0-4)**

Prerequisites: None

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

**AUT 231 Manual Drive
Trains/Axles (2-3-0-3)**

Prerequisites: None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

**AUT 232 Manual Dr Trains/
Axles Lab (0-3-0-1)**

Prerequisites: None

This course provides a laboratory setting to enhance the skills for diagnosing and repairing manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Emphasis is placed on practical experiences that enhance the

topics presented in AUT 231. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in AUT 231.

AUT 271 Adv Heating & A/C (2-2-0-3)

Prerequisites: None

This course utilizes service information and test equipment to diagnose automatic temperature control and ventilation systems. Topics include advanced testing of sensors, actuators, and control modules using service information, on-board diagnostics, and/or appropriate test equipment. Upon completion, students should be able to perform advanced diagnosis and repair on automatic temperature control and ventilation systems.

Biology

BIO 110 Principles of Biology (3-3-0-4)

Prerequisites: 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.

BIO 111 General Biology I (3-3-0-4)

Prerequisites: 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.

BIO 112 General Biology II (3-3-0-4)

Prerequisites: 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 able to demonstrate comprehension of life at the organismal and ecological levels.

BIO 120 Introductory Botany (3-3-0-4)

Prerequisites: 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.

BIO 130 Introductory Zoology (3-3-0-4)

Prerequisites: None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students

should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups.

BIO 140 Environmental Biology (3-0-0-3)

Prerequisites: None

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.

BIO 140A Environmental Biology Lab (0-3-0-1)

Prerequisites: None

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.

BIO 146 Regional Natural History (3-3-0-4)

Prerequisites: None

This course is an interdisciplinary and historical analysis of the natural resources of the region. Emphasis is placed on geology, climate, forest systems, watersheds, water resources, and fish and wildlife resources of the region. Upon completion, students should be able to demonstrate comprehension of the natural history and the integration of the natural resources of the region.

BIO 150 Genetics in Human Affairs (3-0-0-3)

Prerequisites: None

This course describes the importance of genetics in everyday life. Topics include the role of genetics in human development, birth defects, cancer and chemical exposure, and current issues including genetic engineering and fertilization methods. Upon completion, students should be able to understand the relationship of genetics to society today and its possible influence on our future.

BIO 155 Nutrition (3-0-0-3)

Prerequisites: None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.

BIO 163 Basic Anat & Physiology (4-2-0-5)

Prerequisites: 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.

BIO 165 Anatomy and Physiology I (3-3-0-4)

Prerequisites: 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.

BIO 166 Anatomy and Physiology II (3-3-0-4)

Prerequisites: 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.

BIO 168 Anatomy and Physiology I (3-3-0-4)

Prerequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 169 Anatomy and Physiology II (3-3-0-4)

Prerequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 169T Anatomy and Physiology II (3-2-0-3)

Prerequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and

fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. BIO 169 differs from BIO 122 in that it has an extra hour of lab time and shifts the coverage of blood gasses to a different point in the sequence of biological systems.

BIO 175 General Microbiology (2-2-0-3)

Prerequisites: 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.

BIO 271 Pathophysiology (3-0-0-3)

Prerequisites: 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.

BIO 275 Microbiology (3-3-0-4)

Prerequisites: 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.

BIO 291 Select Topics in Biology (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

BIO 292 Select topics in Biology (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

BIO 293 Select topics in Biology (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or

discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Blueprint Reading

BPR 111 Blueprint Reading (1-2-0-2)

Prerequisites: 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.

BPR 121 Blueprint Reading: Mech (1-2-0-2)

Prerequisites: None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

BPR 130 Blueprint Reading/Const (1-2-0-2)

Prerequisites: None

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

BPR 221 Interpretation of GD & T (2-0-0-2)

Prerequisites: None

This course introduces dimensioning and tolerancing standards as established by ANSI and ISO 9000. Topics include dimensioning, symbols and terms, application of tolerances and limits, tolerances of position and form, and the advantages of geometric concepts. Upon completion, students should be able to interpret blueprints that utilize the GD & T system.

Botany (BOT)—See Biology

Broadcasting Technology

BPT 110 Intro to Broadcasting (3-0-0-3)

Prerequisites: None

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

BPT 111 Broadcast Law & Ethics (3-0-0-3)

Prerequisites: None

This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic

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

BPT 112 Broadcast Writing (3-2-0-4)

Prerequisites: None

This course introduces proper copy and script writing techniques and formats for radio, television, and other electronic media. Emphasis is placed on creating effective scripts for programs and promotional materials, including commercial and public radio service announcements for a specific target audience. Upon completion, students should be able to understand and write copy and scripts according to standard industry formats.

BPT 113 Broadcast Sales (3-0-0-3)

Prerequisites: None

This course covers sales principles applicable to radio, television, cable, and other electronic media. Emphasis is placed on prospecting and servicing accounts, developing clients, and preparing sales presentations. Upon completion, students should be able to create a sales presentation based upon standard ratings reports, prospect for new customers, and understand account management.

BPT 115 Public Relations (3-0-0-3)

Prerequisites: None

This course introduces the art and science of analyzing trends, predicting their consequences, counseling organizations, and implementing actions to serve organizational and public interests. Emphasis is placed on identifying public needs, conducting and analyzing research, writing and communicating information, maintaining media relations, and creating an organizational crisis plan. Upon completion, students should be able to summarize public relations history, conduct research, develop press releases, create printed material, and formulate a crisis plan.

BPT 121 Broadcast Speech I (2-3-0-3)

Prerequisites: None

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

BPT 122 Broadcast Speech II (2-3-0-3)

Prerequisites: None

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

phrasing, and other voice techniques in a professional manner.

BPT 131 Audio/Radio Production I (2-6-0-4)

Prerequisites: None

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

BPT 132 Audio/Radio Production II (2-6-0-4)

Prerequisites: None

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

BPT 135 Radio Performance I (0-6-0-2)

Prerequisites: None

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

BPT 136 Radio Performance II (0-6-0-2)

Prerequisites: None

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

BPT 138 Radio Performance IV (0-6-0-2)

Prerequisites: None

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

BPT 139 Radio Performance V (0-6-0-2)

Prerequisites: None

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

BPT 140 Intro to TV Systems (2-0-0-2)

Prerequisites: None

This course introduces technical systems that allow production, transmission, and reception of television and other video media. Emphasis is placed on identifying components and equipment, describing their function within the video chain, and troubleshooting problems within the signal flow. Upon completion, students should be able to demonstrate an understanding of components and equipment in the video chain and provide basic preventive maintenance on equipment.

BPT 210 Broadcast Management (3-0-0-3)

Prerequisites: None

This course covers management duties within the fields of broadcasting and other electronic media. Emphasis is placed on the management of broadcast stations and cable systems, including financial, personnel, news, sales, and promotion management. Upon completion, students should be able to demonstrate knowledge of successful station operation, including key management concepts and strategies.

BPT 215 Broadcast Programming (3-0-0-3)

Prerequisites: None

This course covers programming methods, research, and resources needed to provide programs for radio, television, cable, and satellite target audiences. Topics include market research and analysis; local, network, and public station programming and program sources; and scheduling procedures for electronic media. Upon completion, students should be able to develop a programming format or schedule.

BPT 220 Broadcast Marketing (3-0-0-3)

Prerequisites: None

This course introduces broadcast marketing, including cultivating an audience, building an identity, and servicing customers. Topics include the use of effective promotional tools, marketing research, rating analysis, and the development of a unified marketing plan. Upon completion, students should be able to develop a broadcast marketing plan.

BPT 231 Video/TV Production I (2-6-0-4)

Prerequisites: None

This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all

forms of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment.

BPT 232 Video/TV Production II (2-6-0-4)

Prerequisites: None

This course covers advanced video and television production. Emphasis is placed on field production, post-production, digital video effects, graphics, and multi-camera productions. Upon completion, students should be able to create productions that optimize the use of studio, field, and post-production equipment.

BPT 235 TV Performance I (0-6-0-2)

Prerequisites: None

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

BPT 236 TV Performance II (0-6-0-2)

Prerequisites: None

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

BPT 237 TV Performance III (0-6-0-2)

Prerequisites: None

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

BPT 238 TV Performance IV (0-6-0-2)

Prerequisites: None

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

BPT 239 TV Performance V (0-6-0-2)

Prerequisites: None

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

BPT 241 Broadcast Journalism I (3-2-0-4)

Prerequisites: None

This course introduces broadcast journalism, including the gathering, writing, delivery, editing, and production of news stories and reports. Emphasis is placed on proper news writing skills, including the creation of good leads and complete stories in the production of radio voicers and reports. Upon completion, students should be able to write broadcast news scripts and produce radio news reports and newscasts.

BPT 242 Broadcast Journalism II (3-2-0-4)

Prerequisites: None

This course provides an opportunity to gather, write, edit, and produce broadcast news reports. Emphasis is placed on producing professional broadcast news reports, including script writing, gathering, and editing. Upon completion, students should be able to produce and record professional broadcast news stories.

BPT 250 Institutional Video (2-3-0-3)

Prerequisites: None

This course covers development and production of non-broadcast video productions for clients. Emphasis is placed on satisfying client objectives, including interviewing, research, site surveying, script review, photography, and post-production. Upon completion, students should be able to plan, write, shoot, and edit an institutional video designed to meet a client's objectives.

BPT 255 Computer-Based Production (2-3-0-3)

Prerequisites: None

This course covers digital systems used for video, audio, and multimedia production. Emphasis is placed on computer-based tools integrating digital production with analog broadcast-related production. Upon completion, students should be able to understand and operate basic tools for video graphics, video capture, multimedia authoring, sound capture, and digital audio production.

Business

BUS 110 Introduction to Business (3-0-0-3)

Prerequisites: 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.

BUS 115 Business Law I (3-0-0-3)

Prerequisites: 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 ethical issues and laws covered to selected business decision-making situations.

BUS 116 Business Law II (3-0-0-3)

Prerequisites: None

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 121 Business Math (2-2-0-3)

Prerequisites: 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 125 Personal Finance (3-0-0-3)

Prerequisites: None

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

BUS 137 Principles of Management (3-0-0-3)

Prerequisites: 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 225 Business Finance (2-2-0-3)

Prerequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS 228 Business Statistics (2-2-0-3)

Prerequisites: 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.

BUS 230 Small Business Management (3-0-0-3)

Prerequisites: 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.

BUS 237 Current Management Issues (2-0-0-2)

Prerequisites: None

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

BUS 238 Integrated Management (3-0-0-3)

Prerequisites: None

This course provides a management simulation exercise in which students make critical managerial decisions based upon the situations that arise in operating competitive business enterprises. Topics include operations management, forecasting, budgeting, purchasing, facility layout, aggregate planning, and work improvement techniques. Upon completion, students should be able to perform the variety of analytical and decision-making requirements that will be faced in a business.

BUS 239 Bus Applications Seminar (1-2-0-2)

Prerequisites: None

This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.

BUS 255 Org Behavior in Business (3-0-0-3)

Prerequisites: None

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

BUS 260 Business Communication (3-0-0-3)

Prerequisites: 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.

Ceramics (CER)—See Art

Chemistry

CHM 121 Foundations of Chemistry (3-0-0-3)

Prerequisites: None

This course is designed for those who have no previous high school chemistry or a grade of C

or less in high school chemistry. Topics include matter, structure of the atom, nomenclature, chemical equations, bonding and reactions; mathematical topics include measurements, scientific notation, and stoichiometry. Upon completion, students should be able to demonstrate an understanding of chemical concepts and an ability to solve related problems in subsequent chemistry courses.

CHM 121A Foundations of Chem Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for CHM 121. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 121. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 121.

CHM 130 Gen, Org, & Biochemistry (3-0-0-3)

Prerequisites: None

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.

CHM 130A Gen, Org, & Biochem Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.

CHM 151 General Chemistry I (3-3-0-4)

Prerequisites: 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 fundamental chemical laws and concepts as needed in CHM 152.

CHM 152 General Chemistry II (3-3-0-4)

Prerequisites: 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.

CHM 152T General Chemistry II (3-3-0-4)

Prerequisites: 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 is the transitional course that will represent the equivalent of our current CHM 102, Principles of Chemistry II. This course differs from CHM 102 in that it has less lab time and shifts the treatment of gas, laws, and thermodynamics from the second semester of the sequence to the first (CHM 151).

CHM 251 Organic Chemistry I (3-3-0-4)

Prerequisites: None

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.

CHM 252 Organic Chemistry II (3-3-0-4)

Prerequisites: None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.

CHM 261 Quantitative Analysis (2-6-0-4)

Prerequisites: None

This course introduces classical methods of chemical analysis with an emphasis on laboratory techniques. Topics include statistical data treatment; stoichiometric and equilibrium calculations; and titrimetric, gravimetric, acid-base, oxidation-reduction, and compleximetric methods. Upon completion, students should be able to perform classical quantitative analytical procedures.

CHM 291 Select topics Chemistry (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CHM 292 Select topics Chemistry (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CHM 293 Select topics Chemistry (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Civil Engineering Technology

CIV 110 Statics/Strength of Materials (2-6-0-4)

Prerequisites: MAT 121, PHY 131

This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

CIV 111 Soils and Foundations (2-3-0-3)

Prerequisites: None

This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil. Oral and written communications skills will be emphasized.

CIV 125 Civil/Surveying CAD (1-6-0-3)

Prerequisites: None

This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software.

CIV 210 Engineering Materials (1-3-0-2)

Prerequisites: CIV 110

This course covers the behavior and properties of Portland cement and asphaltic concretes and laboratory and field testing. Topics include cementing agents and aggregates; water and admixtures; proportioning, production, placing, consolidation, and curing; and inspection methods. Upon completion, students should be able to proportion concrete mixes to attain predetermined strengths and other properties and perform stan-

CSC 134 C++ Programming (2-3-0-3)

Prerequisites: CIS 115, CSC 143

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs.

CSC 135 COBOL Programming (2-3-0-3)

Prerequisites: CIS 115

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 138 RPG Programming (2-3-0-3)

Prerequisites: CIS 115

This course introduces computer programming using the RPG 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 RPG language programs.

CSC 139 Visual BASIC Programming (2-3-0-3)

Prerequisites: CIS 115

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: CIS 115

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 Prog (2-3-0-3)

Prerequisites: CIS 115

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 150 Visual RPG Programming (2-3-0-3)

Prerequisites: CIS 115, CIS 130

This course introduces computer programming using the Visual RPG 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 Visual RPG language programs.

CSC 234 Advanced C++ (2-3-0-3)

Prerequisites: 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 235 Advanced COBOL (2-3-0-3)

Prerequisites: None

This course is a continuation of CSC 135 using COBOL 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 238 Advanced RPG (2-3-0-3)

Prerequisites: None

This course is a continuation of CSC 138 using RPG 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: 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: 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.

CSC 244 CICS (4-2-0-5)

Prerequisites: None

This course provides an in-depth study of interactive transaction processing using command level CICS. Topics include pseudoconversational programming, basic mapping support, control tables, storage areas, file maintenance, screen design, and EDF debugging. Upon completion, students should be able to design, code, test, debug, and document command level COBOL programs for menuing, record processing, browsing, and temporary storage.

CSC 248 Adv Internet Progr (2-3-0-3)

Prerequisites: None

This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support network applications. Upon completion, students should be able to design, code, debug, and document network-based programming solutions to various real-world problems using an appropriate programming language.

CSC 250 Advanced Visual RPG (2-3-0-3)

Prerequisites: None

This course is a continuation of CSC 150 using Visual RPG 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 to various problems using an appropriate editor/translator.

Computer Technology

CIS 110 Introduction to Computers (2-2-0-3)

Prerequisites: 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.

CIS 111 Basic PC Literacy (1-2-0-2)

Prerequisites: 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 Prog & Logic (2-2-0-3)

Prerequisites: 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, al-

gorithm 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.

CIS 118 IS Professional Comm (2-0-0-2)

Prerequisites: None

This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

CIS 120 Spreadsheet I (2-2-0-3)

Prerequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

CIS 121 User Support & Softw Eval (1-4-0-3)

Prerequisites: None

This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training, and support. Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.

CIS 128 Computer Language Survey (3-0-0-3)

Prerequisites: None

This course provides an opportunity to compare various computer languages. Emphasis is placed on appropriate uses, syntax, and comparative programming. Upon completion, students should be able to select the appropriate language for problem solving.

CIS 130 Survey of Operating Sys (2-3-0-3)

Prerequisites: 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 144 Operating System - DOS (2-2-0-3)

Prerequisites: None

This course introduces operating systems concepts for DOS operating systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be

able to perform operating system functions at the support level in a DOS environment.

**CIS 147 Operating System-
Windows (2-2-0-3)**

Prerequisites: None

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

**CIS 148 Operating Sys-
WindowsNT (2-2-0-3)**

Prerequisites: None

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: 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: 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 155 Database Theory/
Analysis (2-2-0-3)**

Prerequisites: None

This course introduces database design theories and analyses. Emphasis is placed on data dictionaries, normalization, data integrity, and data modeling. Upon completion, students should be able to design normalized database structures which exhibit data integrity.

**CIS 157 Database
Programming I (2-2-0-3)**

Prerequisites: None

This course is designed to develop programming proficiency in a selected DBMS. Emphasis is placed on the Data Definition Language (DDL) and Data Manipulation Language (DML) of the DBMS as well as on report generation. Upon completion, students should be able to write pro-

grams which create, update, and produce reports representative of industry requirements.

**CIS 162 MM Presentation
Software (2-2-0-3)**

Prerequisites: None

This course is designed to integrate visual and audio resources using presentation software in a simple interactive multimedia project. Emphasis is placed upon design and audience considerations, general prototyping, and handling of media resources. Upon completion, students should be able to demonstrate an original interactive multimedia presentation implementing all of these resources in a professional manner.

CIS 163 Prog Interfaces Internet (2-2-0-3)

Prerequisites: 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 create an interactive multimedia application or applet for the Internet.

CIS 172 Intro to the Internet (2-3-0-3)

Prerequisites: 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 215 Hardware Install/Maint (2-3-0-3)

Prerequisites: 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 Install/Maint (1-2-0-2)

Prerequisites: 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 220 Spreadsheets II (1-2-0-2)

Prerequisites: None

This course covers advanced spreadsheet design and development. Topics include advanced functions, charting, macros, databases, and linking. Upon completion, students should be able to demonstrate competence in designing complex spreadsheets.

CIS 225 Integrated Software (1-2-0-2)

Prerequisites: None

This course provides strategies to perform data transfer among software programs. Emphasis is placed on data interchange among word processors, spreadsheets, presentation graphics, databases, and communications products. Upon completion, students should be able to integrate data to produce documents using multiple technologies.

CIS 244 Operating System-AS/400 (2-3-0-3)

Prerequisites: CIS 130

This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.

CIS 246 Operating System - UNIX (2-3-0-3)

Prerequisites: CIS 130

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 279 UNIX System Admin (3-3-0-4)

Prerequisites: None

This course provides an advanced study of the UNIX operating system for maintaining UNIX systems. Topics include administering user accounts, using back-up utilities, installing and maintaining UNIX file systems, configuring devices, controlling processes, using advanced scripts, and other related topics. Upon completion, students should be able to set up, configure, maintain, and administer a UNIX system.

CIS 286 Systems Analysis & Design (3-0-0-3)

Prerequisites: None

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

CIS 288 Systems Project (1-4-0-3)

Prerequisites: CIS 286

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

Conservation (CON)—See Biology**Cooperative Education****COE 110 World of Work (1-0-0-1)**

Prerequisites: 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

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 112 Co-op Work Experience I (0-0-20-2)

Prerequisites: 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 113 Co-op Work Experience I (0-0-30-3)

Prerequisites: 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 114 Co-op Work Experience I (0-0-40-4)

Prerequisites: 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

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon com-

pletion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

**COE 121 Co-op Work
Experience II (0-0-10-1)**

Prerequisites: 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

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 123 Co-op Work
Experience II (0-0-30-3)**

Prerequisites: 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 124 Co-op Work
Experience II (0-0-40-4)**

Prerequisites: 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

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

**COE 131 Co-op Work
Experience III (0-0-10-1)**

Prerequisites: 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 132 Co-op Work
Experience III (0-0-20-2)**

Prerequisites: 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 133 Co-op Work
Experience III (0-0-30-3)**

Prerequisites: 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 134 Co-op Work
Experience III (0-0-40-4)**

Prerequisites: 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

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

**COE 211 Co-op Work
Experience IV (0-0-10-1)**

Prerequisites: 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 212 Co-op Work
Experience IV (0-0-20-2)**

Prerequisites: 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 213 Co-op Work
Experience IV (0-0-30-3)**

Prerequisites: 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 214 Co-op Work
Experience IV (0-0-40-4)**

Prerequisites: 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 215 Work Exp Seminar IV (1-0-0-1)

Prerequisites: None

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

**COE 221 Co-op Work
Experience V (0-0-10-1)**

Prerequisites: 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 222 Co-op Work
Experience V (0-0-20-2)**

Prerequisites: 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 223 Co-op Work
Experience V (0-0-30-3)**

Prerequisites: 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 224 Co-op Work
Experience V (0-0-40-4)**

Prerequisites: 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 225 Work Exp Seminar V (1-0-0-1)

Prerequisites: None

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

**COE 231 Co-op Work
Experience VI (0-0-10-1)**

Prerequisites: 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 232 Co-op Work
Experience VI (0-0-20-2)**

Prerequisites: 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 233 Co-op Work
Experience VI (0-0-30-3)**

Prerequisites: 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 234 Co-op Work
Experience VI (0-0-40-4)**

Prerequisites: 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 235 Work Exp Seminar VI (1-0-0-1)

Prerequisites: None

This course provides information for career development through emphasis on self-exploration and awareness of the world of work. Upon completion, students will be able to make better career decisions and choices. Course may be customized specific to each curriculum area.

Criminal Justice

CJC 100 Basic Law Enforcement Trn (9-27-0-18)

Prerequisites: 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

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.

CJC 112 Criminology (3-0-0-3)

Prerequisites: 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

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114 Investigative Photography (1-2-0-2)

Prerequisites: None

This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photogra-

phy and proper film exposure and development techniques.

CJC 120 Interviews/ Interrogations (1-2-0-2)

Prerequisites: None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations (3-0-0-3)

Prerequisites: 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.

CJC 122 Community Policing (3-0-0-3)

Prerequisites: None

This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing.

CJC 131 Criminal Law (3-0-0-3)

Prerequisites: 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

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

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.

CJC 151 Intro to Loss Prevention (3-0-0-3)

Prerequisites: None

This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

CJC 198 SEMINAR IN CJ ISSUES (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

CJC 211 Counseling (3-0-0-3)

Prerequisites: None

This course introduces the basic elements of counseling and specific techniques applicable to the criminal justice setting. Topics include observation, listening, recording, interviewing, and problem exploration necessary to form effective helping relationships. Upon completion, students should be able to discuss and demonstrate the basic techniques of counseling.

CJC 212 Ethics & Comm Relations (3-0-0-3)

Prerequisites: 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

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214 Victimology (3-0-0-3)

Prerequisites: None

This course introduces the study of victims. Emphasis is placed on roles/characteristics of vic-

tims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

CJC 215 Organization & Administration (3-0-0-3)

Prerequisites: 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

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 Criminalistics (3-0-0-3)

Prerequisites: None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 223 Organized Crime (3-0-0-3)

Prerequisites: None

This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

CJC 225 Crisis Intervention (3-0-0-3)

Prerequisites: None

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon comple-

tion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

CJC 231 Constitutional Law (3-0-0-3)

Prerequisites: 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.

CJC 232 Civil Liability (3-0-0-3)

Prerequisites: None

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

CJC 233 Correctional Law (3-0-0-3)

Prerequisites: None

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

CJC 241 Community-Based Corrections (3-0-0-3)

Prerequisites: None

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

CJC 250 Forensic Biology (1-2-0-2)

Prerequisites: None

This course covers important biological principles that are applied in the crime laboratory. Topics include forensic toxicology, forensic serology, microscopy, and DNA typing analysis, with an overview of organic and inorganic analysis. Upon completion, students should be able to articulate how a crime laboratory processes physical evidence submitted by law enforcement agencies.

CJC 251 Forensic Chemistry I (3-2-0-4)

Prerequisites: None

This course provides a study of the fundamental concepts of chemistry as it relates to forensic sci-

ence. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

CJC 252 Forensic Chemistry II (3-2-0-4)

Prerequisites: None

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

Design (DES)—See ART

Design Drafting

DDF 211 Design Drafting I (2-6-0-4)

Prerequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

DDF 214 Tool Design (2-4-0-4)

Prerequisites: None

This course introduces the principles of tool design. Topics including gaging, die work, and cost analysis using available catalogs and studies using manufacturing processes. Upon completion, students should be able to use catalogs to identify vendors and prepare working drawings for tooling. Oral and written communications skills will be emphasized.

Drafting

DFT 111 Technical Drafting I (2-6-0-4)

Prerequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

DFT 112 Technical Drafting II (2-6-0-4)

Prerequisites: None

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

DFT 121 Intro to GD & T (1-2-0-2)

Prerequisites: None

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

DFT 151 CAD I (2-3-0-3)

Prerequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 CAD II (2-3-0-3)

Prerequisites: None

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

DFT 152T CAD II (3-3-0-4)

Prerequisites: None

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents. Due to the conversion to semester, for this group of students, the prerequisites for the above courses will not be met due to new course names and organization of material. Extra time is to be spent during lecture, and lab to allow this specific group of students to meet new course competencies so as to be prepared to meet course prerequisites for upcoming courses this fall. This will enable the students to graduate on schedule without penalty for having been involved in the semester conversion.

DFT 153 CAD III (2-3-0-3)

Prerequisites: DFT 111

This course covers basic principles of three-dimensional CAD wireframe and surface models. Topics include user coordinate systems, three-dimensional viewpoints, three-dimensional wireframes, and surface components and viewpoints. Upon completion, students should be able to create and manipulate three-dimensional wireframe and surface models.

DFT 170 Engineering Graphics (2-2-0-3)

Prerequisites: None

This course introduces basic engineering graphics skills, equipment, and applications (manual and computer-aided). Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, and sectional and auxiliary views. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices.

DFT 211 Gears, Cams, & Pulleys (1-3-0-2)

Prerequisites: None

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

DFT 221 Electrical Drafting (2-6-0-4)

Prerequisites: None

This course covers the practices used for making electrical drawings. Emphasis is placed on symbol identification and various types of electrical diagrams. Upon completion, students should be able to properly utilize electrical symbols in the construction of various electrical diagrams.

DFT 231 Jig & Fixture Design (1-2-0-2)

Prerequisites: None

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture. Oral and written communications skills will be emphasized.

DFT 231T Jig & Fixture Design (3-4-0-5)

Prerequisites: None

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture. Due to the conversion to semester, for this group of students, the prerequisites for the above course will not be met due to new course name and organization of material. Extra time is to be spent during lecture, and lab to allow this specific group of students to meet new course competencies so as to be prepared to meet course prerequisites for upcoming courses this fall. This will enable the students to graduate on schedule without penalty for having been involved in the semester conversion.

Earth Science (ESC)—See Physical Science

Ecology (See Biology)

Economics

ECO 151 Survey of Economics (3-0-0-3)

Prerequisites: 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.

ECO 251 Prin of Microeconomics (3-0-0-3)

Prerequisites: 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.

ECO 252 Prin of Macroeconomics (3-0-0-3)

Prerequisites: 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.

Education**EDU 111 Early Childhood Cred I (2-0-0-2)**

Prerequisites: 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 Cred II (2-0-0-2)

Prerequisites: 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 131 Child, Family, & Commun (3-0-0-3)

Prerequisites: None

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

EDU 146 Child Guidance (3-0-0-3)

Prerequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

EDU 153 Health, Safety, & Nutrit (3-0-0-3)

Prerequisites: None

This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

EDU 155 Art & Drama for Children (1-2-0-2)

Prerequisites: None

This course introduces the use of visual art and drama for children. Emphasis is placed on the development of basic forms and planning, designing, and implementing visual art and drama for children. Upon completion, students should be able to discuss the development of basic form and plan, design, and implement visual art and drama in an educational setting.

EDU 157 Active Play (2-2-0-3)

Prerequisites: None

This course introduces the use of indoor and outdoor physical activities to promote the physical, cognitive, and social/emotional 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 185 Cognitive & Lang Act (3-0-0-3)

Prerequisites: None

This course covers methods of developing cognitive and language/communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum activities.

EDU 185A Cognitive & Lang Act Lab (0-2-0-1)

Prerequisites: None

This course provides a laboratory component to complement EDU 185. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practi-

cal understanding of the development and implementation of appropriate cognitive language activities.

EDU 188 Issues in Early Child Ed (2-0-0-2)

Prerequisites: 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 Sp Needs (3-0-0-3)

Prerequisites: None

This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

EDU 234 Infants, Toddlers, & Twos (3-0-0-3)

Prerequisites: 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

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 252 Math & Sci Activities (3-0-0-3)

Prerequisites: None

This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

EDU 252A Math & Sci Act Lab (0-2-0-1)

Prerequisites: None

This course provides a laboratory component to complement EDU 252. 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 math and science activities.

EDU 261 Early Childhood Admin I (2-0-0-2)

Prerequisites: 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: 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 child care 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 280 Literacy Experiences (3-0-0-3)

Prerequisites: None

This course covers literacy, early literacy development, and appropriate early experiences with books and writing. Emphasis is placed on reading and writing readiness, major approaches used in teaching literacy, and strategies for sharing quality in children's literature. Upon completion, students should be able to select, plan, and evaluate appropriate early literacy experiences.

EDU 282 Early Childhood Lit (3-0-0-3)

Prerequisites: 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 288 Adv Issues/ Early Child Ed (2-0-0-2)

Prerequisites: 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.

Pre-Engineering

EGR 115 Intro to Technology (2-6-0-4)

Prerequisites: None

This course introduces the basic skills and career fields for technicians. Topics include career op-

tions, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator. Computers and selected software packages will be introduced; individual and team problem-solving techniques will be emphasized.

EGR 130 Engineering Cost Control (2-2-0-3)

Prerequisites: None

This course covers the management of projects and systems through the control of costs. Topics include economic analysis of alternatives within budget constraints and utilization of the time value of money approach. Upon completion, students should be able to make choices that optimize profits on both short-term and long-term decisions.

EGR 285 Design Project (0-4-0-2)

Prerequisites: ELN 232, ISC 243, MEC 250

This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate operational projects. Oral and written communications skills will be emphasized.

Electrical Installation & Maintenance

ELC 111 Intro to Electricity (2-2-0-3)

Prerequisites: None

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

ELC 112 DC/AC Electricity (3-6-0-5)

Prerequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113 Basic Wiring I (2-6-0-4)

Prerequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment;

lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 114 Basic Wiring II (2-6-0-4)

Prerequisites: None

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

ELC 115 Industrial Wiring (2-6-0-4)

Prerequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 117 Motors and Controls (2-6-0-4)

Prerequisites: None

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

ELC 118 National Electrical Code (1-2-0-2)

Prerequisites: None

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

ELC 119 NEC Calculations (1-2-0-2)

Prerequisites: None

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

ELC 126 Electrical Computations (2-2-0-3)

Prerequisites: None

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

ELC 128 Intro to PLC (2-3-0-3)

Prerequisites: ELN 133

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

ELC 131 DC/AC Circuit Analysis (4-3-0-5)

Prerequisites: None

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC 131T DC/AC Circuit Analysis (2-2-0-3)

Prerequisites: None

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment. The above course is identical to the course presently in our catalog with the exception of reduced hours and has no basic DC.

ELC 135 Electrical Machines I (2-2-0-3)

Prerequisites: None

This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits.

ELC 140 Fund of DC/AC Circuit (5-6-0-7)

Prerequisites: None

This course covers the principles of DC/AC circuit analysis as applied to electronics. Topics include atomic theory, circuit analysis, components, test equipment, troubleshooting techniques, schematics, diagrams, and other related topics. Upon completion, students should be able to interpret, construct, verify, analyze, and troubleshoot DC/AC circuits in a safe manner.

ELC 228 PLC Applications (2-6-0-4)

Prerequisites: None

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced pro-

gramming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

ELC 231 Electric Power Systems (3-2-0-4)

Prerequisites: ELC 131

This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and determine the size and type of circuit protection devices. Oral and written communications skills will be emphasized.

Electronics Engineering Technology

ELN 131 Electronic Devices (3-3-0-4)

Prerequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thermistors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

ELN 132 Linear IC Applications (3-3-0-4)

Prerequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment. Integrated circuit fabrication is also covered.

ELN 132T Linear IC Applications (2-2-0-3)

Prerequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment. The above course is identical to the course presently listed in our catalog with the exceptions of reduced hours and no basic circuits.

ELN 133 Digital Electronics (3-3-0-4)

Prerequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems,

Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN 133T Digital Electronics (2-2-0-3)

Prerequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment. The above course is identical to the course presently listed in our catalog with the exception of reduced hours and no basic digital.

ELN 140 Semiconductor Devices (4-6-0-6)

Prerequisites: None

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

ELN 141 Digital Fundamentals (4-6-0-6)

Prerequisites: None

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

ELN 143 Television Servicing (4-6-0-6)

Prerequisites: None

This course provides a detailed study of the operation and repair of television receiver systems. Topics include operation, alignment, and repair of television receiver systems. Upon completion, students should be able to troubleshoot, maintain, and repair television receiver systems.

ELN 150 CAD for Electronics (1-3-0-2)

Prerequisites: None

This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, layouts); drawing electronic circuit diagrams; and specialized electronic drafting practices and components such as resistors, capacitors, and ICs. Upon completion, students should be able to prepare electronic drawings with CAD software.

ELN 154 Intro to Data Comm (2-3-0-3)

Prerequisites: None

This course introduces the principal elements and theory (analog and digital techniques) of data communication systems and how they are integrated as a complete network. Topics include an overview of data communication, OSI model, transmission modes, serial and parallel inter-

faces, applications of ICs, protocols, network configurations, modems, and related applications. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems and high speed networks.

ELN 229 Industrial Electronics (2-4-0-4)

Prerequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit. Oral and written communications skills will be emphasized.

ELN 232 Intro to Microprocessors (3-3-0-4)

Prerequisites: None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment. Oral and written communications skills will be emphasized.

ELN 233 Microprocessor Systems (3-3-0-4)

Prerequisites: None

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

ELN 234 Communication Systems (3-3-0-4)

Prerequisites: None

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment. Oral and written communications skills will be emphasized.

ELN 235 Data Communication System (3-3-0-4)

Prerequisites: None

This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, serial interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to

demonstrate knowledge of the concepts associated with data communication systems. Oral and written communications skills will be emphasized.

ELN 240 Microprocessor Fund (3-3-0-4)

Prerequisites: None

This course introduces microprocessor architecture and microcomputer systems. Topics include use of technical documentation, bus architecture, I/O and memory systems, and other related topics. Upon completion, students should be able to analyze and troubleshoot basic microprocessor circuits.

ELN 244 Computer Repair (3-6-0-5)

Prerequisites: None

This course covers the assembly, upgrading, and repair of microcomputers. Topics include logic test equipment, computer motherboards, storage devices, I/O devices, power supplies, and other peripherals. Upon completion, students should be able to assemble, upgrade, maintain, troubleshoot, and repair microcomputers.

ELN 246 Cert Elect Tech Prep (3-0-0-3)

Prerequisites: None

This course covers electronic principles, theories, and concepts. Emphasis is placed on those items covered in the Certified Electronic Technician examination. Upon completion, students should be able to demonstrate competence in electronics and be prepared for the Certified Electronic Technician examination.

Emergency Medical Science

EMS 110 EMT-Basic (5-3-0-6)

Prerequisites: None

This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the skills necessary to achieve North Carolina State or National Registry EMT-Basic certification.

EMS 111 Prehospital Environment(2-2-0-3)

Prerequisites: None

This course introduces the prehospital care environment and is required for all levels of EMT certification. Topics include roles, responsibilities, laws, ethics, communicable diseases, hazardous materials recognition, therapeutic communications, EMS systems, and defense tactics. Upon completion, students should be able to demonstrate competence in rules and regulations governing prehospital care and personal protection.

EMS 120 Intermediate Interventions (2-3-0-3)

Prerequisites: BIO 165

This course is designed to provide the necessary information for interventions appropriate to the EMT-Intermediate and is required for intermediate certification. Topics include automated external defibrillation, basic cardiac electrophysiology, intravenous therapy, venipuncture, acid-base bal-

ance, and fluids and electrolytes. Upon completion, students should be able to properly establish an IV line, obtain venous blood, utilize AEDs, and correctly interpret arterial blood gases. Current NC-Emergency Medical Technician certificate is required for students enrolling in this course..

EMS 121 EMS Clinical Practicum I (0-0-6-2)

Prerequisites: BIO 165

This course is the initial hospital and field internship and is required for intermediate and paramedic certification. Emphasis is placed on intermediate-level care. Upon completion, students should be able to demonstrate competence with intermediate-level skills.

EMS 130 Pharmacology I for EMS (1-2-0-2)

Prerequisites: EMS 111, BIO 165

This course introduces the fundamental principles of pharmacology and medication administration and is required for intermediate and paramedic certification. Topics include terminology, pharmacokinetics, pharmacodynamics, weights, measures, drug calculations, legislation, and administration routes. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.

EMS 131 Adv Airway Management (1-2-0-2)

Prerequisites: EMS 111, BIO 165

This course is designed to provide advanced airway management techniques and is required for intermediate and paramedic certification. Topics include respiratory anatomy and physiology, airway, ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.

EMS 140 Rescue Scene Management (1-6-0-3)

Prerequisites: None

This course introduces rescue scene management and is required for paramedic certification. Topics include response to hazardous material conditions, medical incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment.

EMS 150 Emerg Vehicles & EMS Comm (1-3-0-2)

Prerequisites: None

This course examines the principles governing emergency vehicles, maintenance of emergency vehicles, and EMS communication equipment and is required for paramedic certification. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have

a basic knowledge of emergency vehicles, maintenance, and communication needs.

EMS 210 Adv Patient Assessment (2-2-0-3)

Prerequisites: None

This course covers advanced patient assessment techniques and is required for paramedic certification. Topics include initial assessment, medical-trauma history, field impression, complete physical exam process, on-going assessment, and documentation skills. Upon completion, students should be able to utilize basic communication skills and record and report collected patient data.

EMS 220 Cardiology (3-3-0-4)

Prerequisites: EMS 121

This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, rhythm interpretation, cardiac pharmacology, and patient treatment. Upon completion, students should be able to certify at the Advanced Cardiac Life Support Provider level utilizing American Heart Association guidelines.

EMS 221 EMS Clinical Practicum II (0-0-9-3)

Prerequisites: EMS 120, EMS 130, EMS 131

This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care. Current NC EMT Certification is required for students enrolling in this course.

EMS 222 EMS Hospital Clinical II (0-0-6-2)

Prerequisites: None

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

EMS 231 EMS Clinical Pract III (0-0-9-3)

Prerequisites: None

This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

EMS 232 EMS Hospital Clinical III (0-0-6-2)

Prerequisites: None

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

EMS 235 EMS Management (2-0-0-2)

Prerequisites: None

This course stresses the principles of managing a modern emergency medical service system. Top-

ics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.

EMS 240 Behavioral Emergencies (2-0-0-2)

Prerequisites: None

This course includes concepts of crisis intervention and techniques of dealing with different behavioral emergencies and is required for paramedic certification. Topics include psychiatric emergencies, abuse, assault, challenged patients, personal well-being, home care, and psychotherapeutic pharmacology. Upon completion, students should be able to recognize and manage frequently encountered behavioral emergencies.

EMS 241 EMS Clinical Practicum IV (0-0-9-3)

Prerequisites: None

This course is a continuation of the hospital and field internship required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic. Current NC EMT Certification is required for students enrolling in this course.

EMS 242 EMS Hospital Clinical IV (0-0-6-2)

Prerequisites: None

This course is a continuation of the hospital clinical required for paramedic certification. Emphasis is placed on advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

EMS 250 Advanced Medical Emergencies (2-2-0-3)

Prerequisites: None

This course provides an in-depth study of medical conditions frequently encountered in the pre-hospital setting and is required for paramedic certification. Topics include pulmonology, neurology, endocrinology, anaphylaxis, gastroenterology, toxicology, and environmental emergencies integrating case presentation and emphasizing pharmacotherapeutics. Upon completion, students should be able to recognize and manage frequently encountered medical conditions based upon initial patient impression.

EMS 260 Advanced Trauma Emergencies (1-3-0-2)

Prerequisites: None

This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include hemorrhage control, shock, burns, and trauma to head, spine, soft tissue, thoracic, abdominal, and musculoskeletal areas with case presentations utilized for special problems situations. Upon completion, students should be able to recognize and manage trauma situations

based upon patient impressions and should meet requirements of BTLS or PHTLS courses.

EMS 270 Life Span Emergencies (2-2-0-3)

Prerequisites: None

This course, required for paramedic certification, covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies and certify at the Pediatric Advanced Life Support Provider level.

EMS 280 EMS Bridging Course (2-2-0-3)

Prerequisites: None

This course is designed to bridge the knowledge gained in a continuing education paramedic program with the knowledge gained in an EMS curriculum program. Topics include patient assessment, documentation, twelve-lead ECG analysis, thrombolytic agents, cardiac pacing, and advanced pharmacology. Upon completion, students should be able to perform advanced patient assessment documentation using the problem-oriented medical record format and manage complicated patients.

EMS 285 EMS Capstone (1-3-0-2)

Prerequisites: EMS 231

This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

English

ENG 080 Writing Foundations (3-2-0-4)

Prerequisites: 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: None

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: None

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

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 111 Expository Writing (3-0-0-3)

Prerequisites: 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.

ENG 111T Expository Writing (3-0-0-3)

Prerequisites: 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. The above course is identical to the course presently in our catalog with the exception of having no basic grammar.

ENG 112 Argument-Based Research (3-0-0-3)

Prerequisites: 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. A significant component of the course will be a variety of oral presentations related to course readings and assignments, and course evaluation will reflect the activities related to oral communication competency.

ENG 114 Prof Research & Reporting (3-0-0-3)

Prerequisites: 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, interpreta-

tion, 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. Course evaluation will reflect the students' performance on both written and oral activities.

ENG 114T Prof Research & Reporting (3-0-0-3)

Prerequisites: 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. The above course is identical to the course presently listed in our catalog with the exception of a reduced emphasis on oral communication.

ENG 115 Oral Communication (3-0-0-3)

Prerequisites: None

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.

ENG 125 Creative Writing I (3-0-0-3)

Prerequisites: None

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.

ENG 131 Introduction to Literature (3-0-0-3)

Prerequisites: None

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.

ENG 231 American Literature I (3-0-0-3)

Prerequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 232 American Literature II (3-0-0-3)

Prerequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, po-

etry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 241 British Literature I (3-0-0-3)

Prerequisites: None

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 242 British Literature II (3-0-0-3)

Prerequisites: None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 272 Southern Literature (3-0-0-3)

Prerequisites: 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.

ENG 273 African-American Literature (3-0-0-3)

Prerequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts.

ENG 274 Literature by Women (3-0-0-3)

Prerequisites: None

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works.

Fire Protection Technology

FIP 120 Intro to Fire Protection (2-0-0-2)

Prerequisites: None

This course provides an overview of the history, development, methods, systems, and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124 Fire Prevention & Public Ed (3-0-0-3)

Prerequisites: None

This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

FIP 128 Detection & Investigation (3-0-0-3)

Prerequisites: None

This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent.

FIP 132 Building Construction (3-0-0-3)

Prerequisites: None

This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions.

FIP 136 Inspections & Codes (3-0-0-3)

Prerequisites: None

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.

FIP 140 Industrial Fire Protect (2-0-0-2)

Prerequisites: None

This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to prepare a procedure to plan, organize, and evaluate an industrial facility's fire protection.

FIP 144 Sprinklers & Auto Alarms (2-2-0-3)

Prerequisites: None

This course introduces various types of automatic sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other re-

lated topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

FIP 152 Fire Protection Law (2-0-0-2)

Prerequisites: None

This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

FIP 220 Fire Fighting Strategies (3-0-0-3)

Prerequisites: None

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations.

FIP 224 Instructional Methodology (3-0-0-3)

Prerequisites: None

This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet all requirements of NFPA 1041 Fire Service Instructor Level Two.

FIP 228 Local Govt Finance (2-0-0-2)

Prerequisites: None

This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, taxation, audits, and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operation of a department.

FIP 230 Chem of Hazardous Mat I (5-0-0-5)

Prerequisites: None

This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.

FIP 232 Hydraulics & Water Dist (2-2-0-3)

Prerequisites: None

This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water

availability tests, and demonstrate knowledge of water distribution systems.

FIP 236 Emergency Management (2-0-0-2)

Prerequisites: None

This course covers the four phases of emergency management: mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.

FIP 240 Fire Service Supervision (2-0-0-2)

Prerequisites: None

This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and loss control. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of the effective fire service supervisor.

FIP 252 Apparatus Spec & Purch (2-0-0-2)

Prerequisites: None

This course covers the specification and purchase of fire apparatus. Emphasis is placed on NFPA standards for apparatus, recommended types of fire apparatus, purchase and bidding procedures, and the importance of specifications. Upon completion, students should be able to make internal decisions, write specifications, and make recommendations for the purchase of major capital equipment.

FIP 256 Munic Public Relations (2-0-0-2)

Prerequisites: None

This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage the public relations functions of a fire service organization.

FIP 256T Munic Public Relations (2-0-0-2)

Prerequisites: None

This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage the public relations functions of a fire service organization. The above course will be expanded to include subjects previously covered within the Public Fire Education Course, originally scheduled for the summer quarter session. When FIP 256 returns during its cycle it will be entirely Municipal Public Relations subjects.

FIP 276 Managing Fire Services (3-0-0-3)

Prerequisites: None

This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.

FIP 276T Managing Fire Services (2-0-0-2)

Prerequisites: None

This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles. The above course will be primarily comprised of the content previously included within FIP 252, Fire Management III, of the quarter system which was originally scheduled for the summer session. Under the semester program, Fire Management I, II, and III, were consolidated for form Managing Fire Services.

French

FRE 111 Elementary French I (3-0-0-3)

Prerequisites: None

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 112 Elementary French II (3-0-0-3)

Prerequisites: None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness.

FRE 141 Culture and Civilization (3-0-0-3)

Prerequisites: None

This course, taught in English, provides an opportunity to explore issues related to the Francophone 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 Francophone world.

FRE 151 Francophone Literature (3-0-0-3)

Prerequisites: None

This course includes selected readings by Francophone writers. Topics include fictional and non-fictional works by representative authors from a variety of genres and literary periods. Upon completion, students should be able to an-

alyze and discuss selected texts within relevant cultural and historical contexts.

FRE 161 Cultural Immersion (2-3-0-3)

Prerequisites: None

This course explores Francophone culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate an understanding of cultural differences.

Geology

GEL 111 Introductory Geology (3-2-0-4)

Prerequisites: None

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.

Geography

GEO 111 World Regional Geography (3-0-0-3)

Prerequisites: 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.

GEO 112 Cultural Geography (3-0-0-3)

Prerequisites: None

This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution, and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups.

GEO 131 Physical Geography I (3-2-0-4)

Prerequisites: None

This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact.

GEO 132 Physical Geography II (3-2-0-4)

Prerequisites: None

This course introduces the study of minerals, rocks, evolution of landforms, and consequences of landscape change. Emphasis is placed on mineral composition, fluvial processes, erosion and deposition, glaciers, and coastal processes. Upon completion, students should be able to identify

these components and processes and to explain how they interact.

Health

HEA 110 Personal Health/Wellness (3-0-0-3)

Prerequisites: None

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness.

HEA 112 First Aid & CPR (1-2-0-2)

Prerequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. Certification in American Red Cross Responding to Emergencies is given at the end of this course.

HEA 112T First Aid & CPR (0-3-0-1)

Prerequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. The above course will be offered as a transitional course during the 1997 summer to recertify the second year nursing students so that they may be able to continue in their clinical studies.

History

HIS 111 World Civilizations I (3-0-0-3)

Prerequisites: 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 pre-modern world civilizations.

HIS 112 World Civilizations II (3-0-0-3)

Prerequisites: None

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations.

HIS 114 Comparative World History (3-0-0-3)

Prerequisites: None

This course provides a comparison of western and non-western cultures. Emphasis is placed on

historical developments and their impact on the modern world through religion, politics, economics, and social developments. Upon completion, students should be able to compare and contrast western and non-western cultures.

HIS 116 Current World Problems (3-0-0-3)

Prerequisites: None

This course covers current world events from an historical perspective. Topics include regional problems as well as international concerns. Upon completion, students should be able to analyze significant current world problems from an historical perspective.

HIS 131 American History I (3-0-0-3)

Prerequisites: 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.

HIS 132 American History II (3-0-0-3)

Prerequisites: 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.

HIS 161 Science and Technology (3-0-0-3)

Prerequisites: None

This course examines the history of science and technology from pre-history to the present. Topics include the origins, impact, and consequences of scientific and technological developments. Upon completion, students should be able to analyze significant developments in the history of science and technology.

HIS 162 Women and History (3-0-0-3)

Prerequisites: None

This course surveys the experience of women in historical perspective. Topics include the experiences and contributions of women in culture, politics, economics, science, and religion. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural contributions of women in history.

HIS 193 Educational Travel (1-6-0-2)

Prerequisites: None

A social sciences course designed to allow students to obtain limited college credit for valid educational travel, both domestic and foreign. Permission for such Educational Travel must be obtained from the Director of Study Tours before such travel is conducted, and all classwork, written exams, and projects must be submitted to the appropriate department chairperson before academic credit is granted. Students are required to register for the course before travel is undertaken.

HIS 196 Seminar in History (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

HIS 197 Seminar in History (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

HIS 198 Seminar in History (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

HIS 211 Ancient History (3-0-0-3)

Prerequisites: None

This course traces the development of the cultural, intellectual, and political foundations of western civilization. Topics include the civilizations of the Near East, the classical Greek and Hellenistic eras, the Roman world, Judaism, and Christianity. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the ancient world.

HIS 212 Medieval History (3-0-0-3)

Prerequisites: None

This course traces the cultural, political, economic, social, religious, and intellectual history of Europe during the Middle Ages. Topics include the decline of the Roman Empire, the Frankish Kingdoms, the medieval church, feudalism, the rise of national monarchies, urbanization, and the rise of universities. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in medieval Europe.

HIS 213 Modern Europe to 1815 (3-0-0-3)

Prerequisites: None

This course traces the cultural, political, economic, social, religious, and intellectual history of Europe from the end of the Middle Ages to 1815. Topics include the Renaissance, the Reformation, religious wars, absolutism, colonialism, the Scientific Revolution, the Enlightenment, the French Revolution, and Napoleon. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early modern Europe.

HIS 214 Modern Europe Since 1815 (3-0-0-3)

Prerequisites: None

This course traces the history of Europe from 1815 to the present. Topics include the Congress of Vienna, the Revolutionary era, liberalism, so-

cialism, imperialism, nationalism, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant intellectual, political, socioeconomic, and cultural developments in modern Europe since 1815.

HIS 221 African-American History (3-0-0-3)

Prerequisites: 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.

HIS 236 North Carolina History (3-0-0-3)

Prerequisites: 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.

HIS 293 Selected Topics - History (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HIS 296 Seminar in History (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

Humanities

HUM 101 Values in the Workplace (2-0-0-2)

Prerequisites: None

This course is a study of the influence of human values in the workplace and of the workplace on human values. Emphasis is placed on the ways in which the workplace affects and is affected by human values. Upon completion, students should be able to demonstrate a broad-based awareness and appreciation of the inter-connect-edness between human values and the world of work.

HUM 110 Technology and Society (3-0-0-3)

Prerequisites: None

This course considers technological change from historical, artistic, and philosophical perspec-

tives 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.

HUM 115 Critical Thinking (3-0-0-3)

Prerequisites: 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.

HUM 150 American Women's Studies (3-0-0-3)

Prerequisites: None

This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms.

HUM 230 Leadership Development (3-0-0-3)

Prerequisites: None

This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations.

Hydraulics and Pneumatics

HYD 110 Hydraulics/Pneumatics I (2-3-0-3)

Prerequisites: 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. Oral and written communications skills will be emphasized.

Industrial Maintenance— See MNT

Industrial Engineering Technology Industrial Management Technology

ISC 112 Industrial Safety (2-0-0-2)

Prerequisites: None

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment. Occupational health and safety topics relating to the modern industrial environment will be covered.

ISC 128 Industrial Leadership (2-0-0-2)

Prerequisites: None

This course introduces principles and techniques for managers in modern industry. Topics include leadership traits, management principles and processes, managing conflict, group dynamics, team building, counseling, motivation, and communication. Upon completion, students should be able to understand and apply leadership and management principles in work situations.

ISC 132 Mfg Quality Control (2-3-0-3)

Prerequisites: 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

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 135 Principles of Industrial Mgmt (3-0-0-3)

Prerequisites: None

This course covers the managerial principles and practices required for organizations to succeed in modern industry. Topics include the functions and roles of all levels of management, organization design, and planning and control of manufacturing operations. Upon completion, students should be able to demonstrate an understanding of management principles and integrate these principles into job situations.

ISC 136 Productivity Analysis I (2-3-0-3)

Prerequisites: MAT 122

This course covers modern methods of improving productivity. Topics include traditional motion economy, methods analysis, time standards, process analysis, cycle time management, and human factors/ergonomics. Upon completion, students should be able to demonstrate an understanding of productivity concepts and apply productivity improvement techniques to work situations.

ISC 223 Quantitative Methods (3-0-0-3)

Prerequisites: None

This course introduces the quantitative methods involved in operations management decision making. Topics include linear programming, forecasting techniques, inventory control, project management, decision analysis, and simulation modeling. Upon completion, students should be able to interpret quantitative results and demonstrate appropriate decision-making skills. Oral and written communications skills will be emphasized.

ISC 230 Simulation Prod Processes (1-3-0-2)

Prerequisites: None

This course introduces fundamental principles and procedures for simulation modeling of production processes. Emphasis is placed on problem-solving and engineering applications of simulation modeling for quality enhancement and productivity improvement. Upon completion, students should be able to analyze and model a production process to obtain optimum productive operations. Oral and written communications skills will be emphasized.

ISC 233 Industrial Org & Mgmt (3-0-0-3)

Prerequisites: None

This course covers advanced organization and management philosophies for organization improvement. Emphasis is placed on understanding comprehensive organization improvement concepts such as reengineering, MBQA, ISO 9000, and teams. Upon completion, students should be able to demonstrate an understanding of organizations and assess their strengths and weaknesses. Oral and written communications skills will be emphasized.

ISC 233T Industrial Org & Mgmt (2-0-0-2)

Prerequisites: None

This course covers advanced organization and management philosophies for organization improvement. Emphasis is placed on understanding comprehensive organization improvement concepts such as reengineering, MBQA, ISO 9000, and teams. Upon completion, students should be able to demonstrate an understanding of organizations and assess their strengths and weaknesses. The above course is identical to the course presently listed in our catalog with the exceptions of having reduced hours and no basic organization structure.

ISC 235 Management Problems (3-0-0-3)

Prerequisites: None

This course covers problem-solving strategies for a variety of industrial management problems. Emphasis is placed on integrating management principles and practices in an industrial setting through a case-study approach. Upon completion, students should be able to analyze a variety of management problems and provide oral and/or written reports which include problem definition and recommendations. Oral and written communications skills will be emphasized.

ISC 236 Productivity Analysis II (2-3-0-3)

Prerequisites: None

This course covers advanced process and system productivity improvement concepts. Topics include work measurement techniques, resource measurement and planning, team improvement concepts, and team productivity measurements. Upon completion, students should be able to demonstrate an understanding of advanced productivity concepts and apply advanced productivity improvement techniques to work situations.

ISC 237 Quality Management (2-3-0-3)

Prerequisites: ISC 132

This course covers the process by which successful manufacturing organizations achieve customer satisfaction in all processes in the organization. Topics include quality models and approaches, such as MBNQA, ISO 9000, benchmarking, and Deming's 14 Points, and the incorporation of SPC improvement techniques. Upon completion, students should be able to integrate SPC techniques with successful management practices for a comprehensive understanding of continuous quality improvement. Oral and written communications skills will be emphasized.

ISC 243 Prod & Oper Management I (2-3-0-3)

Prerequisites: ISC 128, MAT 121

This course introduces production and operations management concepts, including the use of computer programs to analyze and solve manufacturing problems. Topics include operations strategy, forecasting, production planning and scheduling, inventory management, MRP, Just-in-Time production, and resource management. Upon completion, students should be able to recognize, analyze, and solve a variety of production and operations problems.

ISC 243T Prod & Oper Management I (2-0-0-2)

Prerequisites: None

This course introduces production and operations management concepts, including the use of computer programs to analyze and solve manufacturing problems. Topics include operations strategy, forecasting, production planning and scheduling, inventory management, MRP, Just-in-Time production, and resource management. Upon completion, students should be able to recognize, analyze, and solve a variety of production and operations problems. The above course is identical to the course presently listed in our catalog with the exceptions of having reduced hours and no basic processes.

ISC 244 Prod & Oper Management II (2-3-0-3)

Prerequisites: None

This course covers advanced production and operations management concepts, including the use of computer programs to analyze/solve manufacturing problems. Topics include systems analysis, resource allocation, cost control, and productivity improvement using advanced tools such as linear programming, ABC costing, manufacturing modeling, and manufacturing simulation. Upon completion, students should be able to recognize, analyze, and solve a variety of complex production and operations problems.

ISC 255 Engineering Economy (2-2-0-3)

Prerequisites: MAT 122

This course covers the process of economic evaluation of manufacturing industrial alternatives such as equipment selection, replacement studies, and cost reduction proposals. Topics include discounted cash flows, time value of money, income tax considerations, internal rates of return, and comparison of alternatives using computer programs. Upon completion, students should be able to analyze complex manufacturing alternatives based on engineering economy principles.

ISC 256 System Design (2-3-0-3)

Prerequisites: ISC 230

This course incorporates all phases of industrial engineering into the comprehensive design of an industrial system. Emphasis is placed on developing project reports which reflect a comprehensive understanding of industrial engineering and the analytical tools used to plan work systems. Upon completion, students should be able to demonstrate a comprehensive knowledge of industrial engineering through this capstone course. Oral and written communications skills will be emphasized.

**Jewelry Design (JCR)—
See Art****Legal Education****LEX 110 Intro to Paralegal Study (2-0-0-2)**

Prerequisites: 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

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: 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 (2-0-0-2)

Prerequisites: 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

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: None

This course covers the paralegal's role in the civil litigation process. Topics include investigation, interviewing, pleadings, motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing, directing, and organizing documents for civil litigation.

LEX 150 Commercial Law (2-2-0-3)

Prerequisites: 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 160 Criminal Law &
Procedure (2-2-0-3)**

Prerequisites: 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 spe-

cific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law (2-0-0-2)

Prerequisites: 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 198 SEMINAR IN LEGAL
ISSUES (3-0-0-3)**

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

LEX 210 Real Property I (2-0-0-2)

Prerequisites: 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: None

This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 220 Corporate Law (2-0-0-2)

Prerequisites: None

This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

LEX 240 Family Law (2-0-0-2)

Prerequisites: 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

This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

LEX 260 Bankruptcy & Collections (2-0-0-2)

Prerequisites: 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

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 set up and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LEX 271 Law Office Writing (1-2-0-2)

Prerequisites: None

This course covers the basics of writing for the law office including the drafting of general correspondence, the briefing of cases, and the preparation of settlement brochures. Emphasis is placed on legal vocabulary in the context of letter writing, briefing judicial opinions, and the preparation of the settlement brochure. Upon completion, students should be able to draft letters to clients, opposing counsel, government entities, and insurance companies and prepare the settlement brochure.

LEX 280 Ethics & Professionalism (2-0-0-2)

Prerequisites: None

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the role of a professional paralegal and identify authority that can properly be delegated by an attorney.

Machining Technology

MAC 111 Machining Technology I (2-12-0-6)

Prerequisites: 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: 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: 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 113T Machining Technology III (7-3-0-8)

Prerequisites: 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. All course content will be covered as if it were the regular semester class. The reduction in time will come from the student's lab hours.

MAC 114 Intro to Metrology (2-0-0-2)

Prerequisites: 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 121 Intro to CNC (2-0-0-2)

Prerequisites: None

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

MAC 122 CNC Turning (1-3-0-2)

Prerequisites: 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. The primary focus will be on the Fanuc series O control and supporting G-codes.

MAC 124 CNC Milling (1-3-0-2)

Prerequisites: 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 222 Advanced CNC Turning (1-3-0-2)

Prerequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers. The primary focus will be on the Mazatrol programming format and control.

**MAC 232 CNC Graphics Prog:
Milling (1-4-0-3)**

Prerequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

MAC 243 Die Making I (2-6-0-4)

Prerequisites: 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: 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.

Math

MAT 060 Essential Mathematics (3-2-0-4)

Prerequisites: 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, measure-

ment, 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: None

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: None

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 101 Applied Mathematics I (2-2-0-3)

Prerequisites: 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 102 Applied Mathematics II (2-2-0-3)

Prerequisites: None

This course introduces the concepts of right triangle trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, and right triangle trigonometry. Upon completion, students should be able to solve applied problems both independently and collaboratively.

**MAT 110 Mathematical
Measurement (2-2-0-3)**

Prerequisites: None

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

MAT 115 Mathematical Models (2-2-0-3)

Prerequisites: 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 120 Geometry and Trigonometry (2-2-0-3)

Prerequisites: None

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

MAT 121 Algebra/Trigonometry I (2-2-0-3)

Prerequisites: 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, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; 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

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, Sine Law, Cosine Law, complex numbers, vectors, statistics, and systems of equations. 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 145 Analytical Math (3-0-0-3)

Prerequisites: MAT 080

This course is designed to develop problem-solving and reasoning skills by the study of selected areas of mathematics. Topics include elementary and Boolean algebra, sets, logic, number theory, numeration systems, probability, statistics, and linear programming. Upon completion, students should be able to apply logic and other mathematical concepts.

MAT 151 Statistics I (3-0-0-3)

Prerequisites: None

This course provides a project-based approach to the study of basic probability, descriptive and in-

ferential 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.

MAT 151A Statistics I Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 161 College Algebra (3-0-0-3)

Prerequisites: 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. Students who plan to take MAT 271 must take MAT 171 and MAT 172 or MAT 175, instead of MAT 161.

MAT 161A College Algebra Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 161. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 162 College Trigonometry (3-0-0-3)

Prerequisites: None

This course provides an integrated technological approach to trigonometry and its applications. Topics include 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.

MAT 162A College Trig Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 162. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 165 Finite Mathematics (3-0-0-3)

Prerequisites: 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.

MAT 171 Precalculus Algebra (3-0-0-3)

Prerequisites: 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. Graphing calculators will be used to investigate applications involving matrices, functions, and modeling.

MAT 171A Precalculus Algebra Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 172 Precalculus Trigonometry (3-0-0-3)

Prerequisites: 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, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. Graphing calculators will be used to investigate applications involving the above topics.

MAT 172A Precalculus Trig Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 172. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 175 Precalculus (4-0-0-4)

Prerequisites: 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. Graphing calculators will be used to investigate the above topics as well as other topics.

MAT 175A Precalculus Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 175. Emphasis is placed on experiences that enhance the

materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 210 Logic (3-0-0-3)

Prerequisites: None

This course introduces the concept of deductive logic with emphasis on the use of formal logic in analysis. Topics include traditional logic, propositional logic, and determination of validity including truth tables, Venn diagrams, and translational exercises. Upon completion, students should be able to analyze data based on formal logic or ordinary language discourse.

MAT 223 Applied Calculus (2-2-0-3)

Prerequisites: None

This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.

MAT 252 Statistics II (3-0-0-3)

Prerequisites: None

This course provides a technology-based treatment of multiple sample inferential statistics. Emphasis is placed on two sample hypothesis tests and confidence intervals, linear and multiple regression, analysis of variance, experimental design, and non-parametric techniques. Upon completion, students should be able to draw statistical inferences on multiple sample data taken from business and health, social, natural, and applied sciences.

MAT 252A Statistics II Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 252. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 263 Brief Calculus (3-0-0-3)

Prerequisites: 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. Graphing calculators will be used to investigate applications involving the above topics.

MAT 263A Brief Calculus Lab (0-2-0-1)

Prerequisites: None

This course is a laboratory for MAT 263. Emphasis is placed on experiences that enhance the

materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 271 Calculus I (3-2-0-4)

Prerequisites: 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. Graphing calculators will be used to investigate applications involving the above topics.

MAT 272 Calculus II (3-2-0-4)

Prerequisites: 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. Graphing calculators will be used to investigate applications involving the above topics.

MAT 273 Calculus III (3-2-0-4)

Prerequisites: 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. Graphing calculators will be used to investigate applications involving the above topics.

MAT 280 Linear Algebra (3-0-0-3)

Prerequisites: 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.

MAT 285 Differential Equations (3-0-0-3)

Prerequisites: 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.

Mechanical Engineering Technology

MEC 111 Machine Processes I (2-3-0-3)

Prerequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance. Other topics to be covered include non-destructive inspection and testing, work holding devices, and machining centers.

MEC 112 Machine Processes II (2-3-0-3)

Prerequisites: None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts

MEC 145 Mfg Materials I (2-3-0-3)

Prerequisites: 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 161 Manufacturing Processes I (3-0-0-3)

Prerequisites: None

This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

MEC 180 Engineering Materials (2-3-0-3)

Prerequisites: None

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties. Further topics include iron-carbon phase diagrams, ITT diagrams, and processes concerning metallurgical transformation; oral and written communications skills will be emphasized.

MEC 210 Materials-Stress Analysis (1-2-0-2)

Prerequisites: None

This course is a study of the principles and analysis of stress within machines and structural elements. Emphasis is placed on various types of loads including static, impact, varying, and dynamic loads. Upon completion, students should be able to demonstrate proficiency in analyzing stress in mechanical joints, welds, beams, and columns.

MEC 245 Mfg Materials II (2-3-0-3)

Prerequisites: None

This course covers advanced materials and processing techniques used in modern manufacturing. Emphasis is placed on processing, testing, and application of materials such as polymers, ceramics, and coatings and nontraditional manufacturing processes. Upon completion, students should be able to demonstrate a comprehensive understanding of modern manufacturing processes, engineering materials, and production systems.

MEC 250 Statics & Strength of Mat (4-3-0-5)

Prerequisites: None

This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

MEC 265 Fluid Mechanics (2-2-0-3)

Prerequisites: PHY 131

This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

MEC 267 Thermal Systems (2-2-0-3)

Prerequisites: None

This course introduces the fundamental laws of thermodynamics. Topics include work and energy, open and closed systems, and heat engines. Upon completion, students should be able to demonstrate a knowledge of the laws and principles that apply to thermal power. Additional topics covered are properties of steam, use of steam tables, specific heat and entropy changes of ideal gases, and vapor power cycles in Carnot, Otto, and Rankine.

MEC 270 Machine Design (3-3-0-4)

Prerequisites: None

This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles. Other topics are design and application of machine components such as shafts, belt drives, bearings, chain drives, clutches, couplings, and gears.

MEC 275 Engineering Mechanisms (2-2-0-3)

Prerequisites: None

This course covers plane motion and devices used to generate plane motion. Topics include analysis of displacement, velocity, acceleration, gears, cams, and other mechanical systems. Upon completion, students should be able to graphically and mathematically analyze a plane motion system. Other topics include analysis of velocity and acceleration of linkages using relative velocity and instant center methods; use of software to analyze mechanisms.

MEC 281 Electronic Mfg Processes (3-3-0-4)

Prerequisites: None

This course introduces electronic manufacturing processes. Topics include PCB manufacturing, artwork, clean room processing, environmental concerns, reliability, soldering, material issues, flexible circuits, connections, and electronic assembly. Upon completion, students should be able to demonstrate an understanding of basic electronic processing and be able to process simple electronic devices. Oral and written communications skills will be emphasized.

MEC 283 Introduction to CAM (2-3-0-3)

Prerequisites: None

This course introduces the major concepts of a computer-aided manufacturing system. Topics including linking CAD to CAM, software, programming, and machine codes. Upon completion, students should be able to write a program to a simple part using a CAD input file. Oral and written communications skills will be emphasized.

Medical Assisting

MED 110 Orientation to Med Assist (1-0-0-1)

Prerequisites: None

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. An orientation to the actual medical office environment is reinforced with a study of office design and completion of an office design project.

MED 118 Medical Law and Ethics (2-0-0-2)

Prerequisites: None

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. Guest speakers may be utilized to discuss current medicolegal topics and role-play sessions may be used to reenact various medical court cases.

MED 121 Medical Terminology I (3-0-0-3)

Prerequisites: 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: 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: None

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. Students will participate in office simulation projects, throughout the course, which are designed to reinforce applications skills.

MED 131 Admin Office Proc II (1-2-0-2)

Prerequisites: None

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. Students will participate in office simulation projects, throughout the course, which are designed to reinforce applications skills.

MED 134 Medical Transcription (2-2-0-3)

Prerequisites: None

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. Additionally, students will demonstrate competency in transcribing generic and proprietary drug names as well as competency in computer application skills necessary for successful medical transcription.

MED 140 Exam Room Procedures I (3-4-0-5)

Prerequisites: None

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. Additional studies will concentrate on first aid and cardiopulmonary resuscitation (CPR).

MED 150 Laboratory Procedures I (3-4-0-5)

Prerequisites: None

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. Students will demonstrate proficiency in the use of medical office laboratory equipment necessary to perform basic laboratory tests.

MED 230 Admin Office Proc III (1-2-0-2)

Prerequisites: None

This course provides advanced medical office administrative procedures. Emphasis is placed on management skills including personnel supervision, practice management, public relations, and insurance coding. Upon completion, students should be able to exhibit advanced managerial medical assisting skills. Additional studies will be devoted to hands-on practice sessions in insurance coding and development of an office procedure manual.

MED 240 Exam Room Procedures II (3-4-0-5)

Prerequisites: 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. Students will demonstrate math competencies in algebraic computations necessary to successfully calculate drug dosages and determine equivalent doses among the household, apothecary, and metric systems.

MED 250 Laboratory Procedures II (3-4-0-5)

Prerequisites: None

This course is designed to expand and build on skills presented in MED 150. Emphasis is placed on increasing proficiency in laboratory skills used in the medical setting. Upon completion, students should be able to demonstrate enhanced competence in selected medical laboratory procedures.

MED 260 MED Clinical Externship (0-0-15-5)

Prerequisites: None

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be

able to function as an entry-level health care professional. The clinical externship rotation will be condensed into an 8-week session, with medical facility staff supervising students assigned to their facility for 30 hours per week.

MED 262 Clinical Perspectives (1-0-0-1)

Prerequisites: None

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. Students will be guided through the development of a medical office procedure manual that emphasizes efficient time management.

MED 264 Med Assisting Overview (2-0-0-2)

Prerequisites: None

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. Students will participate in practice test sessions throughout the course that will culminate in a mock certification examination at the end of the course.

MED 270 Symptomatology (2-2-0-3)

Prerequisites: None

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. Students will participate in class projects designed to meet the competencies of the course.

MED 272 Drug Therapy (3-0-0-3)

Prerequisites: None

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. Students will research the 50 most commonly prescribed drugs and will prepare drug information cards on each according to guidelines set forth in the course.

Distribution and Marketing

MKT 120 Principles of Marketing (3-0-0-3)

Prerequisites: 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 Promotion (3-0-0-3)

Prerequisites: 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.

Phlebotomy

MLA 101 Basic Phlebotomy Concepts (12-4-14)

Prerequisite: Acceptance into Phlebotomy Program

This course is designed to introduce the student to the basic concepts of phlebotomy and to the health care environment. Concentrated studies in the following areas are included: health care delivery system, anatomy and physiology, blood collection procedures, infection control and safety, specimen collection and transport. In addition, emphasis will be placed on human relations and patient interaction skills.

MLA 102 Phlebotomy Internship (0-12-4)

Prerequisite: Completion of MLA 101

This course is the practical application of the skills learned in MLA 101. Students will be assigned to a clinical facility for the purpose of performing venipunctures, capillary/skin-puncture techniques, and microcollection techniques. Basic computer applications will also be presented in each facility. Upon successful completion of this course, the student will earn a Phlebotomy Technician Certificate.

Industrial Maintenance Mechanic

MNT 110 Intro to Maint Procedures (1-3-0-2)

Prerequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices (1-3-0-2)

Prerequisites: None

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion,

students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 230 Pumps & Piping Systems (1-3-0-2)

Prerequisites: None

This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

Music

MUS 110 Music Appreciation (3-0-0-3)

Prerequisites: 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.

MUS 111 Fundamentals of Music (2-0-0-2)

Prerequisites: 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.

MUS 112 Introduction to Jazz (3-0-0-3)

Prerequisites: None

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.

MUS 113 American Music (3-0-0-3)

Prerequisites: 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.

MUS 115 Orchestral Music (3-0-0-3)

Prerequisites: None

This course covers representational orchestral and chamber works from the Baroque period to the present. Emphasis is placed on the characteristics of important orchestral forms and styles. Upon completion, students should be able to demonstrate skills in listening to and analyzing orchestral music.

MUS 121 Music Theory I (3-2-0-4)

Prerequisites: 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.

MUS 122 Music Theory II (3-2-0-4)

Prerequisites: 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 application of the above.

MUS 131 Chorus I (0-2-0-1)

Prerequisites: 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.

MUS 132 Chorus II (0-2-0-1)

Prerequisites: 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.

MUS 135 Jazz Ensemble I (0-2-0-1)

Prerequisites: None

This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 136 Jazz Ensemble II (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 141 Ensemble I (0-2-0-1)

Prerequisites: 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.

MUS 142 Ensemble II (0-2-0-1)

Prerequisites: 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.

MUS 151 Class Music I (0-2-0-1)

Prerequisites: 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.

MUS 151B Class Music I/Brass (0-2-0-1)

Prerequisites: 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.

MUS 151P Class Music I/Piano (0-2-0-1)

Prerequisites: 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.

MUS 151V Class Music I/Voice (0-2-0-1)

Prerequisites: 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.

**MUS 151W Class Music I/
Woodwinds (0-2-0-1)**

Prerequisites: 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.

MUS 152 Class Music II (0-2-0-1)

Prerequisites: 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.

MUS 152B Class Music II/Brass (0-2-0-1)

Prerequisites: 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.

MUS 152P Class Music II/Piano (0-2-0-1)

Prerequisites: 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.

MUS 152V Class Music II/Voice (0-2-0-1)

Prerequisites: 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.

**MUS 152W Class Music II/
Woodwinds (0-2-0-1)**

Prerequisites: 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.

MUS 161 Applied Music I (0-2-0-1)

Prerequisites: 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.

MUS 162 Applied Music II (0-2-0-1)

Prerequisites: 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.

MUS 170 Business of Music (3-0-0-3)

Prerequisites: None

This course introduces the basic elements of the music business. Topics include copyright law, musical arrangements and abridgements, record-

ing 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.

MUS 175 Recording Techniques I (2-0-0-2)

Prerequisites: None

This course introduces the recording studio from an artistic and operational point of view. Emphasis is placed on audio consoles, microphones, multi-track recorders, and echo chambers. Upon completion, students should be able to demonstrate understanding of operation and function of recording equipment and its relationship to musician, sound engineer, and producer.

MUS 210 History of Rock Music (3-0-0-3)

Prerequisites: None

This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.

MUS 212 American Musical Theatre (3-0-0-3)

Prerequisites: None

This course covers the origins and development of the musical from Show Boat to the present. Emphasis is placed on the investigation of the structure of the musical and its components through listening and analysis. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.

MUS 213 Opera and Musical Theatre (3-0-0-3)

Prerequisites: None

This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical.

MUS 214 Electronic Music I (1-2-0-2)

Prerequisites: None

This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered.

MUS 217 Elementary Conducting (1-2-0-2)

Prerequisites: 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.

MUS 221 Music Theory III (3-2-0-4)

Prerequisites: 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.

MUS 222 Music Theory IV (3-2-0-4)

Prerequisites: 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.

MUS 231 Chorus III (0-2-0-1)

Prerequisites: 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.

MUS 232 Chorus IV (0-2-0-1)

Prerequisites: 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.

MUS 235 Jazz Ensemble III (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 236 Jazz Ensemble IV (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS 251 Class Music III (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 152. 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.

MUS 251P Class Music III/Piano (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 152. 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.

MUS 251V Class Music III/Voice (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 152. 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.

MUS 252 Class Music IV (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 251. 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.

MUS 252P Class Music IV/Piano (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 251. 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.

MUS 252V Class Music IV/Voice (0-2-0-1)

Prerequisites: None

This course is a continuation of MUS 251. 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.

MUS 253 Big Band (0-2-0-1)

Prerequisites: None

This course includes the Big Band instrumentation of five saxes, four trumpets, four trombones, and four-piece rhythm section (bass, piano, drums, and guitar). Emphasis is placed on learning the repertoire specifically written for Big Band instrumentation. Upon completion, students should be able to demonstrate skills needed to participate in performance of Big Band music.

MUS 265 Piano Pedagogy (0-2-0-1)

Prerequisites: None

This course introduces the basic methods and materials of piano instruction. Emphasis is placed on basic teaching techniques and piano literature appropriate for various skill levels. Upon completion, students should be able to identify and utilize appropriate teaching methods and materials for various levels of piano instruction.

MUS 271 Music History I (3-0-0-3)

Prerequisites: None

This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

MUS 272 Music History II (3-0-0-3)

Prerequisites: None

This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.

Nursing Assistant

NAS 101 Nursing Assistant I (3-2-3-5)

Prerequisites: None

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant I with the North Carolina Nurse Aide I Registry.

NAS 102 Nursing Assistant II (3-2-6-6)

Prerequisites: None

This course provides training in selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing.

NAS 103 Home Health Care (2-0-0-2)

Prerequisites: None

This course covers basic health issues that affect clients in the home setting. Emphasis is placed on home safety, recognizing significant changes in the client's condition, family dynamics, and use of home health care equipment. Upon completion, students should be able to identify care for clients at home.

NAS 104 Home Health Clinical (0-0-3-1)

Prerequisites: None

This course provides supervised experience in the home and/or simulated laboratory with emphasis on the application of basic nursing skills. Emphasis is placed on the transfer of knowledge and skills from institutional settings to home environments. Upon completion, students should be able to safely and efficiently provide delegated basic care to clients in the home.

NAS 105 Life Span Changes (2-0-0-2)

Prerequisites: None

This course covers growth and development in relation to the human body throughout the life span. Topics include restorative care, safety, nutrition, and the physical, mental, and social aspects of the aging process. Upon completion, students should be able to understand the changes that occur throughout the life span.

Networking

NET 110 Data Comm/Networking (2-2-0-3)

Prerequisites: None

This course introduce 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.

Nursing

NUR 101 Practical Nursing I (7-6-6-11)

Prerequisites: None

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

NUR 102 Practical Nursing II (8-0-12-12)

Prerequisites: None

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This course will include the essentials of maternity nursing with emphasis on safe and effective care for mothers, infants, and families.

NUR 103 Practical Nursing III (6-0-12-10)

Prerequisites: None

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. Students will demonstrate competency in computer skills as they relate to NCLEX-PN testing.

NUR 115 Fundamentals of Nursing (2-3-6-5)

Prerequisites: None

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations of health. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 117 Pharmacology (1-3-0-2)

Prerequisites: None

This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Upon completion, students should be able to compute dosages and administer medication safely. Students will demonstrate the level of math competency required to accurately calculate dosages of medicines.

NUR 118 Nutrition/Diet Therapy (2-0-0-2)

Prerequisites: None

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 125 Maternal-Child Nursing (5-3-6-8)

Prerequisites: NUR 135

This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 125A Maternal-Child Nursing (5-3-6-4)

Prerequisites: None

This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

NUR 125B Maternal-Child Nursing (5-3-6-4)

Prerequisites: None

This course introduces nursing concepts related to the delivery of nursing care for the expanding

family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

NUR 135 Adult Nursing I (5-3-9-9)

Prerequisites: None

This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Upon completion, students should be able to apply the nursing process to individuals experiencing acute and chronic alterations in health. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 185 Mental Health Nursing (3-0-6-5)

Prerequisites: NUR 135

This course includes concepts related to the nursing care of individuals experiencing alterations in social and psychological functioning. Emphasis is placed on utilizing the nursing process to provide and manage nursing care for individuals with common psychiatric disorders or mental health needs. Upon completion, students should be able to apply psychosocial theories in the nursing care of individuals with psychiatric/mental health needs. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 188 Nursing in the Community (1-0-6-3)

Prerequisites: NUR 135, NUR 125, NUR 185, NUR 255

This course introduces concepts and practices of community-based nursing care across the life span. Topics include home care history, agency regulation/standards, nurse's roles, the interdisciplinary team, and the application of nursing care to the community setting. Upon completion, students should be able to provide nursing care, manage nursing care, and function as a member of the discipline in home health care. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 189 Nursing Transition (1-3-0-2)

Prerequisites: None

This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.

NUR 235 Adult Nursing II (4-3-15-10)

Prerequisites: NUR 115, NUR 125, NUR 185, NUR 255

This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Empha-

sis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Upon completion, students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health. Students will demonstrate competency in computer and pharmacology calculations skills.

NUR 255 Professional Issues (3-0-0-3)

Prerequisites: NUR 115, NUR 135

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. Students will demonstrate competency in computer and pharmacology calculations skills.

Orientation

OMT 222 Project Management (3-0-0-3)

Prerequisites: None

This course covers fundamental concepts associated with multi-task management and coordination. Topics include flow diagrams, process and operations charts, network scheduling, Gantt charts, and PERT and Critical Path Methods as tools in project management. Upon completion, students should be able to understand and apply project management tools and methods.

Office Science Education

OST 122 Office Computations (1-2-0-2)

Prerequisites: None

This course introduces the keypad and the touch method using the electronic calculator. Topics include mathematical functions in business applications. Upon completion, students should be able to use the electronic calculator to solve a wide variety of problems commonly encountered in business. Students will also gain exposure in using the 10-key pad on the computer keyboard.

OST 131 Keyboarding (1-2-0-2)

Prerequisites: 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: 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 (3-2-0-4)

Prerequisites: 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. Students must demonstrate a proficiency in the touch system of keyboarding prior to taking this course or take OST 131 Keyboarding.

OST 135 Adv Text Entry & Format (3-2-0-4)

Prerequisites: None

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents, and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

OST 136 Word Processing (1-2-0-2)

Prerequisites: 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 137 Office Software Appls (1-2-0-2)

Prerequisites: None

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands on approach. Upon completion, students should be able to use software in a business environment. This course will include Windows, Personal Information Management software, and the Internet.

OST 141 Med Terms I-Med Office (3-0-0-3)

Prerequisites: None

This course uses a language-structure approach to present the terminology and vocabulary that will be encountered in medical office settings. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in approximately one-half of the systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

OST 142 Med Terms II-Med Office (3-0-0-3)

Prerequisites: None

This course is a continuation of OST 141 and continues the study, using a language-structure approach, of medical office terminology and vocabulary. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in the remaining systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

OST 148 Med Coding Billing & Insu (3-0-0-3)

Prerequisites: 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 Med Legal Issues (2-0-0-2)

Prerequisites: 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 155 Legal Terminology (3-0-0-3)

Prerequisites: None

This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and demonstrate an understanding of the use of these legal terms.

OST 156 Legal Office Procedures (2-2-0-3)

Prerequisites: None

This course covers legal office functions involved in the operation of a law office. Emphasis is placed on procedures in the law office involving the court system, legal research, litigation, probate, and real estate, personal injury, criminal, and civil law. Upon completion, students should be able to demonstrate a high level of competence in performing legal office duties.

OST 164 Text Editing Applications (3-0-0-3)

Prerequisites: 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

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. A computerized software program will be utilized in the storage of data.

OST 188 Issues in Office Tech (2-0-0-2)

Prerequisites: None

This course is designed to develop critical thinking skills concerning roles in business and how

these contribute to society. Topics include an examination of social, racial, and gender issues and how they affect self-identity. Upon completion, students should be able to demonstrate an understanding of social issues in reports and written assignments.

OST 223 Machine Transcription I (1-2-0-2)

Prerequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

OST 224 Machine Transcription II (1-2-0-2)

Prerequisites: None

This course provides advanced transcription skills. Emphasis is placed on specialized transcription features. Upon completion, students should be able to transcribe complex business documents into mailable copy with minimal assistance.

**OST 233 Office Publications
Design (2-2-0-3)**

Prerequisites: 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 Adv Word/Information
Proc (2-2-0-3)**

Prerequisites: 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 Med Ofc Transcription I (1-2-0-2)

Prerequisites: 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 242 Med Ofc Transcription II (1-2-0-2)

Prerequisites: None

This course continues building machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as continued proofreading/editing skills and vocabulary building. Upon completion, students should be able to perform competently in preparing accurate and usable

transcripts of voice recordings in the covered specialties.

OST 243 Med Office Simulation (2-2-0-3)

Prerequisites: 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 244 Med Document
Production (1-2-0-2)**

Prerequisites: None

This course provides production-level skill development in processing medical documents. Emphasis is placed on producing mailable documents through the use of medical-related materials. Upon completion, students should be able to perform competently in preparing accurate, correctly formatted, and usable documents.

OST 251 Legal Doc Formatting (2-2-0-3)

Prerequisites: None

This course is designed to provide experience in the preparation of various types of legal forms and documents. Emphasis is placed on formatting and keying legal forms, documents, and correspondence. Upon completion, students should be able to produce these documents with accuracy and speed.

OST 252 Legal Transcription I (1-2-0-2)

Prerequisites: None

This course provides experience in using the transcriber to produce legal correspondence, forms, and documents with mailable accuracy from recorded tapes. Emphasis is placed on operating the transcriber, developing listening skills to translate the audio into hard copy, and producing mailable documents. Upon completion, students should be able to transcribe legal forms and documents with reasonable accuracy.

OST 253 Legal Transcription II (1-2-0-2)

Prerequisites: None

This course is designed to improve transcription skills to produce more complex legal correspondence, forms, and documents with mailable accuracy from recorded tapes. Emphasis is placed on developing speed and accuracy in the production of correspondence, documents, and forms. Upon completion, students should be able to transcribe legal forms and documents with greater accuracy and speed.

OST 284 Emerging Technologies (2-0-0-2)

Prerequisites: 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 286 Professional Development (2-0-0-2)

Prerequisites: None

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

OST 289 Office Systems Management (2-2-0-3)

Prerequisites: 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. This course will include selected topics from the CPS Exam Review and will provide hands-on office practice experiences.

Paralegal—See Legal Education (LEX)

Phlebotomy

PBT 100 Phlebotomy Technology (5-2-0-6)

Prerequisites: None

This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on 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. Completion of this course allows the student to progress to the clinical phase of the phlebotomy program, with assignment in an area health care facility.

PBT 101 Phlebotomy Practicum (0-0-9-3)

Prerequisites: None

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. Students receive a certificate upon completion of practicum requirements and qualify to sit for the phlebotomy certification examination offered by the American Society of Phlebotomists.

Physical Education

PED 110 Fit and Well for Life (1-2-0-2)

Prerequisites: 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.

PED 111 Physical Fitness I (0-3-0-1)

Prerequisites: 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.

PED 112 Physical Fitness II (0-3-0-1)

Prerequisites: None

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.

PED 113 Aerobics I (0-3-0-1)

Prerequisites: 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.

PED 114 Aerobics II (0-3-0-1)

Prerequisites: 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.

PED 117 Weight Training I (0-3-0-1)

Prerequisites: 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.

PED 118 Weight Training II (0-3-0-1)

Prerequisites: 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.

PED 119 Circuit Training (0-3-0-1)

Prerequisites: None

This course covers the skills necessary to participate in a developmental fitness program. Emphasis is placed on the circuit training method which involves a series of conditioning timed stations arranged for maximum benefit and variety. Upon completion, students should be able to understand and appreciate the role of circuit training as a means to develop fitness.

PED 128 Golf-Beginning (0-2-0-1)

Prerequisites: 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.

PED 129 Golf-Intermediate (0-2-0-1)

Prerequisites: 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 demonstrate the knowledge and ability to play a recreational round of golf.

PED 130 Tennis-Beginning (0-2-0-1)

Prerequisites: 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.

PED 131 Tennis-Intermediate (0-2-0-1)

Prerequisites: 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.

PED 139 Bowling-Beginning (0-2-0-1)

Prerequisites: 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.

PED 140 Bowling-Intermediate (0-2-0-1)

Prerequisites: None

This course covers more advanced bowling techniques. Emphasis is placed on refining basic skills and performing advanced shots, spins, pace, and strategy. Upon completion, students should be able to participate in competitive bowling.

PED 143 Volleyball-Beginning (0-2-0-1)

Prerequisites: 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.

PED 144 Volleyball-Intermediate (0-2-0-1)

Prerequisites: 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.

PED 181 Snow Skiing-Beginning (0-2-0-1)

Prerequisites: 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 maneuvers on skis.

PED 182 Snow Skiing Intermediate (0-2-0-1)

Prerequisites: None

This course is designed to further develop snow skiing skills. Topics include selection and care of equipment, parallel skiing and turns, christies, advanced jumps, trail skiing, and slalom racing. Upon completion, students should be able to ski on varying terrains and snow conditions with control and safety.

Philosophy

PHI 210 History of Philosophy (3-0-0-3)

Prerequisites: 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 identify and distinguish among the key positions of the philosophers studied.

PHI 215 Philosophical Issues (3-0-0-3)

Prerequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue.

PHI 220 Western Philosophy I (3-0-0-3)

Prerequisites: None

This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, Anselm, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith.

PHI 221 Western Philosophy II (3-0-0-3)

Prerequisites: None

This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Marx,

Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason.

PHI 230 Introduction to Logic (3-0-0-3)

Prerequisites: None

This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning.

PHI 240 Introduction to Ethics (3-0-0-3)

Prerequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice.

PHI 250 Philosophy of Science (3-0-0-3)

Prerequisites: None

This course introduces the concepts of empirical observations and laws and their role in scientific explanation, prediction, and theory formation. Topics include the relationship between the philosophy of science and inductive/deductive logic, analytic philosophy, logical empiricism, and explanatory paradigms. Upon completion, students should be able to describe the development and role of scientific explanation, prediction, theory formation, and explanatory paradigms in the natural and social sciences.

PHI 291 Select Topics Philosophy (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PHI 293 Select Topics Philosophy (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PHI 296 Seminar in Philosophy (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and

the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

PHI 298 Seminar in Philosophy (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

Physical Science

PHS 130 Earth Science (3-2-0-4)

Prerequisites: None

This course is a survey of the forces that impact the earth. Topics include geology, oceanography, and meteorology. Upon completion, students should be able to explain and identify the forces within, on, and around the earth as they influence the earth's dynamics.

PHS 140 Weather and Climate (3-0-0-3)

Prerequisites: None

This course introduces the nature, origin, processes, and dynamics of the earth's atmospheric environment. Topics include general weather patterns, climate, and ecological influences on the atmosphere. Upon completion, students should be able to demonstrate an understanding of weather formation, precipitation, storm patterns, and processes of atmospheric pollution.

PHS 291 Select topics Earth Scien (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PHS 292 Select topics Earth Scien (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PHS 293 Select topics Earth Scien (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Physics (Also see Hydraulics and Pneumatics HYD)

PHY 121 Applied Physics I (3-2-0-4)

Prerequisites: 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

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: 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 132 Physics-Elec & Magnetism (3-2-0-4)

Prerequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 133 Physics-Sound & Light (3-2-0-4)

Prerequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 140 Physics-Mech Structures (3-2-0-4)

Prerequisites: None

This algebra/trigonometry-based course introduces the analysis of mechanical structures. Topics include equilibrium of two- and three-dimensional forces, centroids, center of gravity, and the analysis of trusses and frames. Upon completion, students should be able to analyze typical structural systems and calculate internal and external forces on structural members.

PHY 141 Fiber Optics (3-2-0-4)

Prerequisites: None

This course provides a fundamental understanding of physical principles related to fiber optic systems. Topics include the nature of light, optical fibers, detectors, modulation formats, system design, physical optics, and optical communication. Upon completion, students should be able to demonstrate an understanding of the fundamental principles studied as they relate to practical applications of fiber optic systems.

PHY 151 College Physics I (3-2-0-4)

Prerequisites: 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.

PHY 152 College Physics II (3-2-0-4)

Prerequisites: 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.

PHY 153 Modern Topics in Physics (3-2-0-4)

Prerequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, basic quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 251 General Physics I (3-3-0-4)

Prerequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear

kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 252 General Physics II (3-3-0-4)

Prerequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 253 Modern Physics (3-3-0-4)

Prerequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Plastics

PLA 120 Injection Molding (2-3-0-3)

Prerequisites: 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. Additional topics include introduction to polymer chemistry, sources of plastics, forms of plastics, thermoplastics, and thermosetting materials; oral and written communications skills will be emphasized.

PLA 162 Plastics Manuf Processes (2-3-0-3)

Prerequisites: None

This course covers manufacturing processes including machining, sawing, routing, milling, drilling, tapping, turning, thermoforming, molding, extrusion, laminating, reinforcing, expansion, casting, coating, assembly, and finishing. Emphasis is placed on the process and equipment requirements, special operational concerns, setup, operation, tooling, capability limitations, maintenance, and safety. Upon completion, students should be able to select the correct process for the material required and discuss machine operation, setup, tooling, safety, and scrap recycling. Oral and written communications skills will be emphasized.

PLA 230 Adv Plastics Manufacturing (3-3-0-4)

Prerequisites: PLA 120, PLA 162

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. Oral and written communications skills will be emphasized.

PME—See Industrial Maintenance (MNT)

Political Science

POL 110 Intro Political Science (3-0-0-3)

Prerequisites: 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.

POL 120 American Government (3-0-0-3)

Prerequisites: 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.

POL 130 State & Local Government (3-0-0-3)

Prerequisites: 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.

POL 196 Seminar Political Science (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

POL 210 Comparative Government (3-0-0-3)

Prerequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems.

POL 220 International Relations (3-0-0-3)

Prerequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems.

Pre-Engineering—See EGR

Psychology

PSY 101 Applied Psychology (3-0-0-3)

Prerequisites: 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 102 Human Relations (2-0-0-2)

Prerequisites: None

This course covers the skills necessary to handle human relationships effectively. Topics include self-understanding, interpersonal communication, group dynamics, leadership skills, diversity, time and stress management, and conflict resolution with emphasis on work relationships. Upon completion, students should be able to demonstrate improved personal and interpersonal effectiveness.

PSY 110 Life Span Development (3-0-0-3)

Prerequisites: 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 118 Interpersonal Psychology (3-0-0-3)

Prerequisites: None

This course introduces the basic principles of psychology as they relate to personal and profes-

sional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

PSY 135 Group Processes (3-0-0-3)

Prerequisites: 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: 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.

PSY 183 Psychology of Addiction (3-0-0-3)

Prerequisites: None

This course covers historical and theoretical perspectives on addictive behavior and the genetic, familial, and sociocultural influences on addiction. Topics include addictions to eating, gambling, alcohol, drugs, relationships, work, and sex. Upon completion, students should be able to demonstrate a knowledge of the theories of addiction and the factors underlying addictive behaviors.

PSY 191 Select Topics Psychology (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PSY 196 Seminar in Psychology (1-0-0-1)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

PSY 198 Seminar in Psychology (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

PSY 211 Psychology of Adjustment (3-0-0-3)

Prerequisites: None

This course introduces the study of the adjustment process focusing on contemporary challenges individuals must deal with in everyday life. Topics include theories of behavior, career choices, self-understanding, coping mechanisms, human relationships, intimacy, sociocultural factors influencing healthy personal adjustment, and other related topics. Upon completion, students should be able to demonstrate an awareness of the processes of adjustment.

PSY 239 Psychology of Personality (3-0-0-3)

Prerequisites: 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.

PSY 241 Developmental Psych (3-0-0-3)

Prerequisites: 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.

PSY 243 Child Psychology (3-0-0-3)

Prerequisites: 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.

PSY 244 Child Development I (3-0-0-3)

Prerequisites: None

This course provides an introduction to the study of child development and examines the growth and development of children from conception through early childhood. Topics include historical and theoretical perspectives, terminology, research and observation techniques as well as physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of the early stages of child development.

PSY 245 Child Development II (3-0-0-3)

Prerequisites: None

This course examines the growth and development of children during early and middle childhood. Emphasis is placed on factors influencing physical, cognitive, and psychosocial growth

and change. Upon completion, students should be able to demonstrate an understanding of early and middle child development.

PSY 246 Adolescent Psychology (3-0-0-3)

Prerequisites: 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 sociocultural factors that influence adolescent roles in home, school and community. Upon completion, students should be able to identify typical and atypical adolescent behavior patterns as well as appropriate strategies for interacting with adolescents.

PSY 249 Psychology of Aging (3-0-0-3)

Prerequisites: None

This course covers the particular needs and behaviors of the maturing adult. Emphasis is placed on psychosocial processes; biological and intellectual aspects of aging; adjustments to retirement, dying, bereavement; and the stereotypes and misconceptions concerning the elderly. Upon completion, students should be able to show an understanding of the psychological factors related to the aging process.

PSY 259 Human Sexuality (3-0-0-3)

Prerequisites: None

This course provides the biological, psychological, and sociocultural aspects of human sexuality and related research. Topics include reproductive biology, sexual and psychosexual development, sexual orientation, contraception, sexually transmitted diseases, sexual disorders, theories of sexuality, and related issues. Upon completion, students should be able to demonstrate an overall knowledge and understanding of human sexuality.

PSY 281 Abnormal Psychology (3-0-0-3)

Prerequisites: 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.

PSY 285 Psychological Statistics (3-0-0-3)

Prerequisites: None

This course introduces the study of descriptive and inferential statistics and their use in psychological research. Topics include measures of central tendency, variability and correlation, probability, sampling, hypothesis testing, and analysis of variance. Upon completion, students should be able to use statistical methods in the analysis of psychological data.

Reading

RED 080 Intro to College Reading (3-2-0-4)

Prerequisites: 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: 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.

RED 111 Crit Reading for College (3-0-0-3)

Prerequisites: None

This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines.

Religion

REL 110 World Religions (3-0-0-3)

Prerequisites: 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.

REL 111 Eastern Religions (3-0-0-3)

Prerequisites: None

This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

REL 112 Western Religions (3-0-0-3)

Prerequisites: None

This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

REL 198 Seminar in Religion (3-0-0-3)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and

the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

REL 211 Intro to Old Testament (3-0-0-3)

Prerequisites: 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.

REL 212 Intro to New Testament (3-0-0-3)

Prerequisites: 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.

REL 221 Religion in America (3-0-0-3)

Prerequisites: None

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

Sociology

SOC 100 Concepts in Sociology (3-0-0-3)

Prerequisites: None

This course examines the basic concepts of sociology from the perspective of the individual as a member of society. Topics include an understanding of society, culture, collective behavior, community life, social institutions, social change, and the effect of social life on human behavior. Upon completion, students should be able to demonstrate knowledge of the impact of social interaction on institutions, groups, and individuals.

SOC 103 Family Living (3-0-0-3)

Prerequisites: None

This course introduces various aspects of the contemporary American family and related intimate lifestyles. Topics include courtship, mate selection, marriage, parenting, sexuality, and family relationships. Upon completion, students should be able to identify practical issues and decisions relating to marriage and similar intimate relationships.

SOC 105 Social Relationships (3-0-0-3)

Prerequisites: None

This course is designed to study social relations and human behavior in all aspects of society. Emphasis is placed on the individual in the family, educational setting, and workplace. Upon

completion, students should be able to apply knowledge about human behavior to improve interpersonal and job effectiveness.

SOC 197 Seminar in Sociology (2-0-0-2)

Prerequisites: None

This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SOC 210 Introduction to Sociology (3-0-0-3)

Prerequisites: 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.

SOC 213 Sociology of the Family (3-0-0-3)

Prerequisites: 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.

SOC 215 Group Processes (3-0-0-3)

Prerequisites: None

This course introduces group processes and dynamics. Emphasis is placed on small group experiences, roles and relationships within groups, communication, cooperation and conflict resolution, and managing diversity within and among groups. Upon completion, students should be able to demonstrate the knowledge and skills essential to analyze group interaction and to work effectively in a group context.

SOC 220 Social Problems (3-0-0-3)

Prerequisites: 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.

SOC 225 Social Diversity (3-0-0-3)

Prerequisites: None

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differ-

ences evolve and how they affect personality development, values, and tolerance.

SOC 240 Social Psychology (3-0-0-3)

Prerequisites: 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.

Spanish

SPA 110 Introduction to Spanish (2-0-0-2)

Prerequisites: 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

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.

SPA 112 Elementary Spanish II (3-0-0-3)

Prerequisites: None

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.

SPA 120 Spanish for the Workplace (3-0-0-3)

Prerequisites: 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

This course provides an opportunity to explore issues related to the Hispanic world. Topics in-

clude 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.

SPA 151 Hispanic Literature (3-0-0-3)

Prerequisites: None

This course includes selected readings by Hispanic writers. Topics include fictional and non-fictional works by representative authors from a variety of genres and literary periods. Upon completion, students should be able to analyze and discuss selected texts within relevant cultural and historical contexts.

SPA 161 Cultural Immersion (2-3-0-3)

Prerequisites: None

This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences.

SPA 211 Intermediate Spanish I (3-0-0-3)

Prerequisites: None

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.

SPA 212 Intermediate Spanish II (3-0-0-3)

Prerequisites: None

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.

Surveying

SRV 110 Surveying I (2-6-0-4)

Prerequisites: None

This course introduces the theory and practice of plane surveying. Topics include measuring distances and angles, differential and profile leveling, compass applications, topography, and mapping. Upon completion, students should be able to use/care for surveying instruments, demonstrate field note techniques, and apply the theory and practice of plane surveying.

SRV 111 Surveying II (2-6-0-4)

Prerequisites: None

This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out

highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

SRV 210 Surveying III (2-6-0-4)

Prerequisites: None

This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.

SRV 220 Surveying Law (2-2-0-3)

Prerequisites: None

This course introduces the law as related to the practice of surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Upon completion, students should be able to identify and apply the basic legal aspects associated with the practice of land surveying. Oral and written communications skills will be emphasized.

SRV 230 Subdivision Planning (1-6-0-3)

Prerequisites: None

This course covers the planning aspects of residential subdivisions from analysis of owner and municipal requirements to plat layout and design. Topics include municipal codes, lot sizing, roads, incidental drainage, esthetic considerations, and other related topics. Upon completion, students should be able to prepare a set of subdivision plans.

SRV 240 Topo/Site Surveying (2-6-0-4)

Prerequisites: None

This course covers topographic, site, and construction surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.

SRV 250 Advanced Surveying (2-6-0-4)

Prerequisites: None

This course covers advanced topics in surveying. Topics include photogrammetry, astronomical observations, coordinate systems, error theory, GPS, GIS, Public Land System, and other related topics. Upon completion, students should be able to apply advanced techniques to the solution of complex surveying problems.

SRV 260 Field & Office Practices (1-3-0-2)

Prerequisites: None

This course covers surveying project management, estimating, and responsibilities of surveying personnel. Topics include record-keeping, starting and operating a surveying business, contracts, regulations, taxes, personnel management, and professional ethics. Upon completion, students should be able to understand the requirements of operating a professional land surveying business.

Veterinary Medical Technology

VET 110 Animal Breeds and Husbandry (2-2-0-3)

Prerequisites: None

This course provides a study of the individual breed characteristics and management techniques of the canine, feline, equine, bovine, porcine, ovine, caprine, and laboratory animals. Topics include physiological data, animal health management, and basic care and handling of animals. Upon completion, students should be able to identify breeds of domestic and laboratory animals, list physiological data, and outline basic care, handling, and management techniques.

VET 120 Vet Anatomy & Physiology (3-3-0-4)

Prerequisites: VET 122

This course covers the structure and function of the animal body with emphasis on the similarities and differences among domestic animals. Emphasis is placed on the structure and function of the major physiological systems of domestic, laboratory, and zoo animals. Upon completion, students should be able to identify relevant anatomical structure and describe basic physiological processes for the major body systems.

VET 122 Veterinary Zoology (3-3-0-4)

Prerequisites: None

This course introduces basic concepts and principles of biology including cell structure, metabolism, genetics, evolution, and ecology. Topics include anatomy and physiology, phylogeny, and taxonomy of the animal kingdom. Upon completion, students should be able to explain basic life processes and identify evolutionary relationships among members of the animal kingdom.

VET 123 Veterinary Parasitology (2-3-0-3)

Prerequisites: None

This course covers the common internal and external parasites of companion animals, livestock, selected zoo animals, and wild animals. Emphasis is placed on laboratory diagnosis of the most common forms of the parasite through fecal, urine, skin, and blood exams. Upon completion, students should be able to identify common parasites and discuss life-cycles, treatment and prevention strategies, and public health aspects of veterinary parasitology.

VET 125 Veterinary Diseases I (2-0-0-2)

Prerequisites: VET 120

This course introduces basic immunology, fundamentals of disease processes including inflammation, and common infectious diseases of animals and their prevention through immunization. Topics include fundamental disease processes, principles of medical therapy, immunologic processes, infections and zoonotic diseases of domestic animals, and prevention of disease. Upon completion, students should be able to describe basic disease and immunological processes, recognize infections and zoonotic diseases, and discuss prevention strategies.

VET 126 Veterinary Diseases II (1-0-0-1)

Prerequisites: VET 125

This course is a continuation of VET 125 and includes the study of basic disease processes and fundamentals of pathology. Topics include histopathology, pathologic changes associated with common diseases of animals, necropsy procedures, and specimen handling. Upon completion, students should be able to describe basic pathologic changes associated with disease, recognize histopathologic changes, and properly perform collection and submission of necropsy specimens.

VET 131 Vet Lab Techniques I (2-3-0-3)

Prerequisites: None

This course includes the fundamental study of hematology, hemostasis, and urinalysis. Emphasis is placed on basic hematology and urinalysis techniques, manual skill development, instrumentation, quality control, and applications to veterinary science. Upon completion, students should be able to perform manual and automated CBCs, hemostatic assays, and complete urinalyses and maintain laboratory equipment and quality control.

VET 133 VET Clinical Practice I (2-3-0-3)

Prerequisites: None

This course introduces basic practices and techniques of the veterinary clinic and biomedical research fields for dogs, cats, and laboratory animals. Topics include physical exam, husbandry, housing, sanitation, restraint and handling, administration of medications, anesthesia and euthanasia techniques, grooming, and dentistry. Upon completion, students should be able to properly restrain, medicate, examine, groom, and maintain each of the species studied.

VET 137 Vet Office Practices (1-3-0-2)

Prerequisites: None

This course is designed to teach basic administrative techniques, client communication skills, and regulations pertaining to veterinary medicine. Topics include record keeping, telephone techniques, professional liability, office procedures, state and national regulatory laws, human relations, and animal welfare. Upon completion, students should be able to demonstrate effective communication techniques, office procedures, and knowledge of regulatory laws and issues relating to animal welfare. Additional studies will emphasize the use of computers and software in veterinary practice management.

VET 191 Selected Topic - Vet Tech (0-3-0-1)

Prerequisites: VET 125

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students will supplement lectures in VET 126 with laboratory skills in necropsy procedures and sample collection.

VET 211 Vet Lab Techniques II (2-3-0-3)

Prerequisites: None

This course covers advanced hematology, serology, immunology, and clinical chemistry. Topics include advanced hematologic, serologic, and immunologic test procedures: manual and automated clinical chemistry procedures: laboratory safety: and quality control. Upon completion, students should be able to collect, prepare, and analyze serum and plasma samples and outline quality control and safety procedures.

VET 212 Vet Lab Techniques III (2-3-0-3)

Prerequisites: None

This course introduces the basic principles of microbiology, histology, and cytology. Emphasis is placed on collection of microbiological samples for culture and sensitivity and collection and preparation of samples for histological and cytological examination. Upon completion, students should be able to perform microbiological culture and sensitivity and evaluate cytology and histology specimens.

VET 213 VET Clinical Practice II (1-9-0-4)

Prerequisites: None

This course covers basic radiography, anesthesia techniques, dentistry, sample collection and handling, surgical assistance and instrumentation, sterile techniques, and patient record keeping. Topics include basic radiography, injectable and gas anesthesia, dentistry, instrument identification and care, sterile surgical technique, specimen collection and processing, and maintenance of patient records. Upon completion, students should be able to take and process radiographs, administer and monitor anesthesia, assist in surgical procedures, collect specimens, and maintain surgical records. Students will continue to gain proficiency in the use of veterinary computer software programs for record keeping, inventory management, and practice economics.

VET 214 VET Clinical Practice III (1-9-0-4)

Prerequisites: None

This course covers advanced anesthetic techniques, special radiographic techniques, advanced dentistry, sample collection and processing, bandaging, and emergency and critical care procedures. Topics include induction and maintenance of anesthesia, radiographic contrast studies, advanced dentistry, external coaptation, intensive care procedures, and advanced sample collection techniques. Upon completion, students should be able to demonstrate proficiency in sample collection, radiology, anesthesia, critical care and emergency procedures, and dentistry. Students will continue to gain proficiency in the use of veterinary computer software applications for patient record keeping, inventory management, and practice economics.

VET 215 Veterinary Pharmacology (3-0-0-3)

Prerequisites: None

This course introduces drugs and other substances utilized in veterinary medicine. Emphasis is placed on drug classification and methods

of action, administration, effects and side effects, storing and handling of drugs, and dosage calculations. Upon completion, students should be able to properly calculate and administer medications, recognize adverse reactions, and maintain pharmaceutical inventory and administration records. Students will demonstrate math competencies in algebraic computations necessary to successfully calculate drug dosages and perform conversions to the metric system.

VET 217 Large Animal Clin Pract (2-3-0-3)

Prerequisites: None

This course covers topics relevant to the medical and surgical techniques for the common domestic large animal species. Topics include physical exam, restraint, sample collection, bandaging, emergency treatment, surgical and obstetrical procedures and instruments, herd health, and lameness topics. Upon completion, students should be able to safely perform restraint, examination, and sample collection; assist surgical, obstetrical, and emergency procedures; and discuss herd health.

VET 237 Animal Nutrition (3-0-0-3)

Prerequisites: None

This course covers the principles of nutrition and their application to feeding practices of domestic, farm, and companion animals. Topics include basic nutrients and nutritional needs of individual species, proximate analysis, interpretation of food and feed labels, types of animal foods, and ration formulation. Upon completion, students should be able to select appropriate diets for animals in various stages of health and disease, analyze nutrition labels, and identify foods.

Welding

WLD 110 Cutting Processes (1-3-0-2)

Prerequisites: 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. This course also introduces the oxy-fuel welding and brazing processes.

WLD 112 Basic Welding Processes (1-3-0-2)

Prerequisites: 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

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 pre-

scribed electrodes. This course also introduces the concepts of welding metallurgy.

WLD 116 SMAW (Stick) Plate/Pipe (1-9-0-4)

Prerequisites: 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. This course also includes the knowledge and skills that apply to welding pipe.

WLD 121 GMAW (MIG) FCAW/Plate (2-6-0-4)

Prerequisites: 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. This course also introduces TIG welding.

WLD 131 GTAW (TIG) Plate (2-6-0-4)

Prerequisites: 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. This course also introduces GTAW on pipe.

WLD 141 Symbols & Specifications (2-2-0-3)

Prerequisites: 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. This course also includes inspection and testing of welds.

WLD 151 Fabrication I (2-6-0-4)

Prerequisites: None

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment. Student will also be able to fabricate projects.

WLD 261 Certification Practices (1-3-0-2)

Prerequisites: None

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

Zoology (ZOO)—See Biology

Personnel

ADMINISTRATION, FACULTY AND STAFF

Adams, Barbara H.	1986	Blackstock, Sarah C.	1995
Administrative Assistant, VP for Student Services, Admissions and Marketing		Instructor, Science	
A.A.S., Gaston College		B.S., College of William and Mary	
Adams, Kathie (RN)	1995	M.S., Carnegie Mellon University	
Instructor, Nursing Assistant		Blanton, Robert A.	1969
A.D.N., Forsyth Technical College		Department Chairperson, Social/Behavioral Sciences, Study Tours Director	
Allbright-Jurs, Lisa	1997	A.A., Mars Hill College	
Instructor, Criminal Justice		B.S., M.A., Appalachian State University	
B.A., University of North Carolina, Chapel Hill		Bostian, Steven W.	1971
J.D., Emory Law School		Department Chairperson, Business Administration and Accounting	
Al-Nasra, Moayyad M. (P.E.)	1992	B.S.B.A., M.A., Appalachian State University	
Department Chairperson, Civil Engineering Technology		Bradley, Lois B. (R.N.)	1981
B.Sc., M.Sc., Yarmouk University		Chairperson, Nursing	
Ph.D., Old Dominion University		B.S.N., Lenoir-Rhyne	
Argent, Joseph	1996	M.Ed., University of N.C. at Charlotte	
Instructor, English		Brooks, Cindy	1993
B.A., M.A., East Carolina University		Bookstore/Secretary, Lincoln Campus	
Ph.D., University of North Carolina, Greensboro		Broome, Tonia	1975
Armstrong, J. Leonard, Jr.	1965	Instructor, Developmental Math	
Department Chairperson, Electronics Engineering Technology		B.A., M.A., University of North Carolina, at Charlotte	
B.S.E.E., N.C. State University		M.Ed.,	
Armstrong, Melissa M.	1991	Brown, Pearlie M.	1966
Instructor, Chemistry		Senior Librarian	
B.S., Davidson College		B.S., M.L.S., N.C. Central University	
Ph.D., (A.B.D.), University of Tennessee		Ed.D., Nova University	
Arthurs, Janet B. (R.N.)	1983	Bruce, Joy F.	1992
Instructor, Nursing		Instructor, Accounting and Business	
B.S.N., University of North Carolina at Chapel Hill		B.A., North Carolina State University	
Ball, Roland R.	1965	M.S., Appalachian State University	
Dean, Industrial Technologies Division		Burgin, Deborah F.	1994
B.S., Berry College		Instructor/Coordinator, ABE Learning Centers	
M.A., Appalachian State University		B.S., University of N.C. at Charlotte	
Bambach, William J.	1976	Burgin, William L., Jr.	1991
Instructor, Prison Unit-Developmental Education		Instructor, Mathematics	
B.A., Belmont Abbey College		B.A., M.A., University of N.C. at Charlotte	
M.A., University of N.C. at Chapel Hill		Butts, Patricia M.	1993
Barnes, Jean C.	1989	Bookstore Assistant	
Instructor, Developmental Reading		Byers, Darlene M.	1989
B.A., Sacred Heart College		Secretary, Institutional Effectiveness and Planning	
Barrett, Linda F.	1993	B.A., Johnson C. Smith University	
Shipping and Receiving Assistant		Cagle, Joe N.	1993
Baylock, Parrish K.	1991	Department Chairperson and Criminal Justice Paralegal	
Custodian		B.A., Olivet College	
Beam, Wade	1996	J.D., Wake Forest University	
Instructor, Adult High School		M.A., Goddard College	
B.A., Belmont Abbey College		LL.M., University of Mississippi	
Bennett, Thomas S.	1975	Cameron, Edgar M.	1976
Instructor, Business Administration		Department Chairperson, Industrial Technologies	
B.S., Appalachian State University		A.A.S., Gaston College	
M.Ed., University of N.C. at Charlotte		B.S., Western Carolina University	
Berrier, Paul R.	1974	Cantrell, James L.	1989
Vice President for Facilities		Computer Programmer	
A.B., M.Div, Duke University		A.A.S., Gaston College	
Ed.S., Appalachian State University		Capeheart-Meningall, Jennifer	1996
Ed.D., University of N.C. at Greensboro		Director of Lincoln Campus	
		B.A., Adelphi University	
		M.S., Long Island University	

Carpenter, Teresa J. Counseling Associate A.A., Gaston College	1984	Creed, Natalie M. Instructor, Mathematics B.S., N.C. Central University B.A., University of Michigan	1995
Carroll, V. Gail (C.P.S.) Financial Aid Specialist B.S., Bob Jones University	1990	Crow, Kay T. Administrative Assistant to Vice President for Academic Affairs Georgia Southern University	1989
Chaffin, Troy F. Instructor, Developmental Mathematics B.A., University of Florida	1974	Crowther, Joann Y. Registration/Records Specialist	1980
Chambers, Allen. Director of Life Skills B.A., M.Ed., Auburn University	1996	Davis, Ann Secretary, Fire Protection Technology and Fire Training	1996
Chambers, Stephanie M. Personnel Specialist A.A.S., Gaston College	1987	Davis, Beverly A. Department Chairperson, Licensed Practical Nursing B.S.N., Lenoir-Rhyne College	1988
Clay, Rex Institutional Researcher B.S., Marshall University M.A., UNC - Chapel Hill Ed.D., North Carolina State University	1995	Davis, Christopher B. Grounds Technician A.A., Catawba Valley Community College	1995
Clemmer, Mary G. Instructor, Computer Science A.B., Lenoir-Rhyne College	1982	Davis, Regina C. Accounting Specialist/Equipment Coordinator A.A.S., Gaston College B.S., Gardner-Webb University	1984
Cline, Horace L. Vice President for Student Services B.S., East Carolina University M.A., Appalachian State University Ed.D., Nova University	1965	Davis, William P. Instructor, Computer Science B.A., College of William and Mary M.S., Barry University Ph.D., University of N.C. at Greensboro	1984
Cloninger, Michael Instructor, Automotive Technology A.A.S., Gaston College	1995	Dedmon, Paula H. Instructor, Biology B.S., M.A., Winthrop College	1991
Cole, Judith P. Instructor, Biology B.S., Morris Harvey College M.S., Marshall University	1970	Dellinger, Dewey D. Department Chairperson, Mathematics B.A., N.C. State University M.A., University of N.C. at Charlotte Ph.D., N.C. State University	1990
Cole, Richard M. Audiovisual Specialist B.S., M.A., Appalachian State University	1978	Devine, Darrell F. Instructor, Electrical Installation and Maintenance Gaston College	1983
Cooke, Linda H. Secretary, Cooperative Education A.A., Gaston College	1979	Domenico, Elizabeth W. Instructor, Business Administration B.S., Rider College M.S., Temple University	1971
Cooke, Ronald P. Department Chairperson, Industrial Maintenance Mechanic A.A., Gaston College B.S., Western Carolina University	1985	Dotson, Kathy H. Computer Programmer/PC Specialist A.A.S., Gaston College B.S., Gardner-Webb University	1989
Cox, Virgil G. Dean of Engineering Technologies B.S., Massachusetts Institute of Technology M.S.E.E., Massachusetts Institute of Technology Ocean Engineer, Massachusetts Institute of Technology	1987	Dougan, Carol P. Dean, Business and Computer Science B.Mus, University of Cincinnati M.Mus, University of Southern California M.B.A., Pepperdine University Ph.D., The University of Texas at Austin	1995
Craft, John Instructor, Electrical Installation and Maintenance Diploma, Gaston College	1995	Duncan, Jane (R.N.) Department Chairperson, Nursing Assistant Program B.S.N., University of S.C. at Columbia	1992
Crane, Duane Chairperson Science B.S., North Carolina State University M.A., Eastern Michigan University M.A., University of North Carolina at Charlotte	1994	Dunlap, David C. Custodian	1991

Dunsmore, Stuart G.	1971	Glover, Kevin	1991
Instructor, English		Custodian	
B.A., Butler University		Goines, Barbara C. (R.N.)	1975
M.A., New York University		Instructor, Nursing	
Ellington, Barbara	1996	B.S.N., Winston-Salem State University	
Instructor, English		Green, Geraldine B.	1979
B.A., M.A., University of North Carolina,		Administrative Assistant to Dean of Business and	
Charlotte		Computer Science	
Elliott, Carol M.	1991	Brevard College	
Administrative Assistant to Director of Lincoln		Greene, Vicki K.	1991
Campus		Admissions Specialist	
A.A.S., Gaston College		A.A.S., Gaston College	
English, Donna	1995	Greene, William H.	1989
Instructor, Drafting		Dean, Arts and Sciences	
A.A., A.A.S., Isothermal Community College		B.A., Johnson C. Smith University	
Falls, Brenda L.	1973	M.A., Ph.D., Michigan State University	
Chairperson, Office Technology		Greer, Linda L.	1992
B.S., M.A., Ed.S., Winthrop College		Dean, Continuing Education	
Feemster, Gwendolyn K.	1987	B.S., M.Ed., Indiana University of	
Continuing Education Auditor		Pennsylvania	
A.A.S., Gaston College		Gregory, Alfred L.	1986
B.S., Gardner-Webb University		Supervisor, Housekeeping	
Fieler, Gail	1993	Gregory, Brenda E.	1989
Secretary, Medical Asst, Vet Tech, Phlebotomy		Secretary, Life Skills Programs	
A.A., Palm Beach Junior College		Evans College	
Foster, Peggy S.	1988	Grooms, Suzette B.	1991
Coordinator of Academic Support Services		Secretary, Lincoln Campus	
A.A.S., Piedmont Technical College		Kings College	
B.S., Limestone College		Gunter, L. Dale	1993
M. P.A. UNC-Charlotte		Director of Enrollment Management	
Fowler, Kelly	1996	B.S., Clemson University	
Instructor, Mathematics		A.B.T., University of N.C. at Chapel Hill	
B.S., M.A., Appalachian State University		M.B.A., University of N.C. at Charlotte	
Freeman, Gary W.	1982	Hall, Pam	1995
Instructor, Art		Vice President for Administrative Services	
B.S., M.A., East Carolina University		A.A. Louisberg College	
Freeman, Karen Q.	1984	A.B., University of N.C. at Chapel Hill	
Early Childhood Teacher		M.A.Ed., East Carolina University	
A.A.S., Gaston College		Hall, Steve R.	1991
Galant, Lawrence L.	1970	Supervisor, Systems Planning and Maintenance	
Instructor, Psychology		Hambright, Myers T.	1974
B.S., Fairleigh Dickinson University		Instructor, Electronics Engr. Technology	
M.Ed., Pennsylvania State University		B.A., Elon College	
Ph.D., University of N.C. at Greensboro		M.B.A., Winthrop College	
Galloway, June R.	1987	Hamby, Martha B.	1987
Early Childhood Teacher		Buyer/Purchasing Agent	
A.A.S., Gaston College		Hamilton, Sandy	1994
Garrett, Vivian	1978	Secretary, Community Education	
Early Childhood Teacher		Hanie, Elizabeth	1995
A.A., Gaston College		Director, Veterinary Technology	
Garvin, Betty B.	1988	B.S.A., D.V.M., University of Georgia	
Instructor, Medical Assisting		M.S., Virginia Polytechnic Institute	
A.A.S., College		Harbers, Carol	1988
B.T., Appalachian State University		Director of Marketing, Public Relations and	
George, Dianne	1996	Development	
Instructor, Nursing		A.B., University of N.C. at Chapel Hill	
B.S.N., M.S.N., University of North Carolina,		M.A., University of N.C. at Charlotte	
Charlotte		Harrison, Barbara G. (R.N.)	1975
Gill, Pamela A.	1992	Instructor, Licensed Practical Nursing	
Instructor, Foreign Languages		B.S., Winston-Salem State University	
A.B., Duke University		M.Ed., University of N.C. at Charlotte	
M.A., Ph.D., University of N.C. at Chapel Hill			

Hegenbart, Alex F.	1979	Jimison, Louise N.	1982
Director of Music Programs		Director, Early Childhood Development Center	
B.A., S.M.H. at Amsterdam		B.A., Sacred Heart College	
M.M., Amsterdam Conservatory of Music			
Hicks, Ben B.	1983	Johnson, Grace L.	1993
Instructor, Radio/TV Broadcasting		Custodian	
A.A., Emanuel College			
High, Lora A.	1988	Johnston, Janet L.	1974
Receptionist/Coordinator of Internal Communications		Chairperson, Early Childhood Education	
A.A., Gardner-Webb College		B.S., Athens College	
		M.A., Ed.D., University of Alabama	
High, Randy	1994	Jones, Betsy H.	1979
Director of Safety/Chief of Campus Police		Director of Computer Services	
A.A. Gaston College		A.A.S., Gaston College	
B.S., University of N.C. at Charlotte		B.S., Gardner-Webb College	
Holcombe, Anna C.	1995	Jones, Jo Ann S.	1989
Early Childhood Teacher		Instructor, Business Administration and Office Technology	
B.A., Sacred Heart College		B.S., MacMurray College	
		M.A., East Carolina University	
Hood, Marshall	1992	Jones, Mary Elizabeth (R.N.)	1978
Maintenance Technician		Department Chairperson, Medical Assisting	
		B.S.N., University of South Carolina	
Hopper, Alice D.	1978	M.A., Central Michigan University	
Admissions Specialist			
Hopper, Nancy P.	1986	Keener, Laura B.	1988
Coordinator of Continuing Education Registration		Early Childhood Teacher	
A.A.S., Gaston College		A.A.S., Gaston College	
B.S., Gardner-Webb College			
Hoyle, Gail	1993	Killian, Don R.	1965
Secretary, Lincoln Campus ABE/GED/AHS		Instructor, Social Science	
		A.B., Davidson College	
Hoyle, Sandra F.	1972	M.A., Appalachian State University	
Administrative Assistant to Dean of Engineering Technologies			
Hunsucker, David L.	1968	Kincaid, Brenda A.	1974
Dean, Library and Media Center		Director of Student Employment Services	
A.B., Lenoir-Rhyne College		B.A., University of N.C. at Charlotte	
M.A., Appalachian State University			
M.S.L.S., University of N.C. at Chapel Hill		King, Belinda	1996
Huntley, Troy C.	1973	Instructor, Medical Assisting	
Instructor, Physical Education		A.A.S., Gaston College	
B.S., M.A., Western Carolina University			
Ed.D., East Texas State University		King, Bonita G.	1976
Hurst, Anne	1996	Library Specialist	
Instructor, Criminal Justice		A.A.S., Caldwell Community College	
B.S., Guilford College		B.S., Gardner-Webb University	
J.D., Case Western Reserve University School of Law			
Jackson, Glenda S.	1991	Kiser, Rebecca E.	1989
Instructor, Reading		Instructor, Office Technology	
B.S., Appalachian State University		A.A.S., Cleveland Community College	
M.H.D.L., University of N.C. at Charlotte		B.T., M.A., Appalachian State University	
James, John T.	1974	Knight, Al	1996
Counselor/Director for Minority Affairs		Instructor, Computer Science	
B.S.I.E., S.C. State College		B.S., Gardner Webb University	
M.Ed., University of N.C. at Charlotte			
Jenkins, Todd M.	1987	Lackey, Keith F. (R.L.S.)	
Supervisor, Grounds Maintenance		Instructor, Civil Engineering Tech	
A.A.S., Catawba Valley Technical College		A.A.S., Gaston College	
		B.S., North Carolina State University	
Jennings, Judy K.	1992	Leeper, Hattie M.	1986
Recruiter for Life Skills Programs		Department Chairperson, Radio/TV Broadcasting	
B.A., Sacred Heart College		B.S., University of N.C. at Chapel Hill	
B.S.W., Livingstone College		M.Ed., University of N.C. at Charlotte	
		Lenoir, James	1994
		Coordinator, Adult High School	
		B.S., Livingston College	
		Lewandowski, Joseph T.	1974
		Instructor, Psychology	
		A.B., M.A., Fresno State College	
		Ph.D., Washington State University	

Lewis, Evelyn L.	1986	Merritt, John C.	1965
Coordinator, Human Resources Development B.A., Flora McDonald College for Women		Associate Dean, Community Education B.S., M.A., East Carolina University Ed.D., N.C. State University	
Lienhart, Dale A.	1984	Miller, Frances E.	1972
Computer Operator/Communication Specialist A.S., Gaston College		Chief Examiner, GED	
Lippert (Kirkpatrick), Norma (R.N.)	1981	Miller, James P.	1988
Dean of Nursing & Health Sciences Division B.S.N., Duke University M.A., Appalachian State University M.S.N., University of N.C. at Charlotte		Custodian	
Looney, T. Gene	1988	Miller, Marcia L. (R.N.)	1989
Registration/Records Specialist B.F.A., University of Texas		Instructor, Nursing B.S.N., University of Michigan M.S.N., University of N.C. at Chapel Hill	
Lowery, Hilda C.	1974	Mintz, Annette W.	1978
Administrative Assistant to Vice President of Finance and Operations		Library Technician North Carolina Central University	
Lynch, Lucinda F.	1978	Mogg, Randy J.	1991
Financial Aid Specialist/Secretary		Instructor, Anatomy & Physiology B.S., Texas A & M University Ph.D., University of Texas	
Mabry, Douglas S.	1991	Morton, Mary D.	1993
Instructor, AC/Heating/Refrigeration Diploma in HVAC, Cleveland Com. College		Instructor, Philosophy B.A., M.A., University of South Carolina M.A., Vanderbilt University Ph.D., Vanderbilt University	
Manikas, William T.	1974	Navey, Linda H.	1972
Instructor, Political Science, History B.A., Boston University M.A., Colgate University Ed.D., Florida Atlantic University		Administrative Assistant to the President	
Martin, Franklin E.	1983	Nencetti, Janice	1987
Department Chairperson, Air Conditioning, Heating & Refrigeration B.S., Western Carolina University		Accounting Assistant	
McAteer, Porter L.	1965	Nencetti, Thomas J.	1993
Instructor, Industrial Engineering Technology B.S.I.E., North Carolina State University		Director of Video Production B.A., State University of N.Y. at Geneseo	
McCall, Elizabeth S.	1990	Nevins, David	1996
Instructor, English B.A., Belmont Abbey College M.A., University of N.C. at Charlotte		Instructor, Physics/Engineering Science B.S., State University of New York at Buffalo M.A., State University College of New York at Geneseo	
McCoy, Bonne D.	1993	Nichols, Sharon M.	1979
Counselor, Health Sciences B.A., Western Kentucky University M.Ed., University of N.C. at Charlotte		Instructor, English B.A., M.A., University of N.C. at Charlotte	
McCrary, Nellie R.	1972	Norman, Dana	1995
Department Chairperson, Languages and Literature B.S., M.Ed., Livingston University Ph.D., University of Alabama		Custodian	
McCullough, Alicia	1993	Nortey, Thomas D.	1993
Instructor, English B.A., Hampton University M.A., University of N.C. at Charlotte		Department Chairperson, Mechanical Engineering Technology B.S.M.E., University of Science & Technology M.S.M.E., University of Massachusetts	
McElwaine, Marion	1992	Oates, Peggy V.	1994
Custodian		Financial Aid Specialist/Secretary B.S., Gardner Webb College	
McGee, Thomas R.	1979	Opritz, Marsha	1993
Campus Police Officer		Director, Small Business Center B.S., Ohio State University M.B.A., Western Carolina University	
McGinnis, Heidimarie	1987	Overly, Joyce A.	1995
Accounting Assistant A.A.S., Gaston College		Instructor, Chemistry B.S.Ed., Indiana University of Pennsylvania Ph.D., Bowling Green State University	
		Painter, S. Anita	1985
		Accounting Specialist	

Parker, D. Dolores	1967	Reid, John Y.	1995
Technical Processing Specialist		Vice President for Academic Affairs	
B.V.A., M.F.A., Winthrop College		A.B., Yale University	
Patterson, Nancy C.	1982	M.A., University of Arizona (History)	
Administrative Assistant to the Vice President for		M.A., University of Arizona (English)	
Facilities		Ph.D., University of Arizona	
A.S., Kings College		Rhoney, Frances C.	1984
Patterson, Robert W.	1982	Instructor, Office Technology	
Painter/Maintenance		A.B., Lenoir-Rhyne College	
Payseur, Delores	1996	M.A., Appalachian State University	
Instructor, Adult Basic Education/General		Ed.S., Barry University	
Education Diploma, Lincoln Campus		Ph.D., University of N.C. at Greensboro	
B.S., Gardner Webb University		Rhyne, Irma	
Pendleton, Ronnie L.	1995	Registration Specialist	
Plumber		Robbins, Judy	1988
Vocational Diploma, Gaston College		Security Officer	
Penley, Kandy D.	1980	A.A., Gaston College	
Secretary, Criminal Justice		Roberson, Kathryn W.	1972
A.A.S., Gaston College		Instructor, English	
Perry, Richard	1996	B.A., M.A., University of N.C. at Charlotte	
Instructor, Sociology		Robertson, James G.	1974
B.A., Millsaps College		Instructor, Marketing	
M.A., University of California		B.S., M.S., Pennsylvania State University	
M.A., California State University		Robinson, Billy L.	1977
Pettis, Charles	1986	Shipping and Receiving Supervisor	
Custodian		Robinson, Martha A.	1992
Platt, Marilyn G.	1991	Secretary, Director of Computer Services	
Director of Developmental Education		A.A.S., Brevard Junior College	
B.A., M.A., University of N.C. at Charlotte		Rogers, Leslie	1992
Purser, Janice L.	1987	Admissions Specialist	
Administrative Assistant, Dean of Continuing		A.A.S., Gaston College	
Education		Ross, Jayne B.	1986
A.A., Gaston College		Department Chairperson, Architectural Drafting	
A.B., Lenoir-Rhyne College		A.A.S., Central Piedmont Comm. College	
Queen, Patsy S.	1989	B.S., Western Carolina University	
Instructor, Nursing		Runyon, Harry T.	1971
B.S.Ed., B.S.N., Western Carolina University		Department Chairperson, Automotive & Diesel	
M.S.N., University of Texas at Austin		Nashville Auto Diesel College	
Queen, Robin	1994	Mayo State Vocational School	
Asst. GED Examiner		B.S., Western Carolina University	
A.S., Gaston College		Russell, Donald K.	1965
Ramsey, Tina L.	1995	Department Chairperson, Electronics	
Early Childhood Teacher		Servicing/Industrial Electronics	
A.A., Gaston College		A.A.S., Gaston College	
B.A., Belmont Abbey		B.S., Western Carolina University	
Randall, Marguerite T. (R.N.)	1993	M.S., North Carolina Agricultural and	
Instructor, Licensed Practical Nursing		Technical State University	
B.S.N., Duke University		Sahms, Patricia M.	1980
Randleman, J. Michael	1994	Director of Printing	
Instructor, Paralegal and Criminal Justice		Sanders, Patricia A. (R.N.)	1993
A.A., Mars Hill College		Instructor, Nursing	
B.A., J.D., Wake Forest University		B.S.N., Weber State University	
Raymond, Thomas T. (P.E.)	1993	Sanders, Susan D.	1985
Chairperson, Industrial Engineering Technology		Mailroom Assistant	
and Operations Mgmt. Technology		Scott, Kathy L.	1974
B.S.I.E., University of Florida		Veterans Affairs & Financial Aid Specialist	
M.B.A., University of Kentucky		Sellers, H. Duane	1995
Redd, Deana K.	1995	Preventive Maintenance Technician	
Assistant Director of the Bookstore		Diploma, Gaston College	
B.B.A., LaGrange College			

Sexton, Lawrence D.	1989	Sox, Angela L.	1984
Instructor, Developmental English		Reference Librarian	
B.A., Brooklyn College		B.A., N.C. State University	
Shellman, W. Mark	1984	M.S.L.S., University of N.C. at Greensboro	
Department Chairperson, Computer Science		Sprinkle, Elizabeth Ann (R.N.)	1995
B.S., North Carolina State University		Instructor, Nursing	
M.S., Barry University		A.A.S., Philadelphia Community College	
Sigal, Marvin	1992	B.S., Spring Garden College	
Instructor, Biology		M.S.N., Guynedd-Mercy College	
M.S., Wright State University		Stackston, Hattie L.	1980
B.S., Ph.D., The Ohio State University		Early Childhood Teacher	
Simmons, Donna T.	1986	A.A.S., Gaston College	
Computer Lab Technician		Stagg, Nancy J.	1994
Simmons, Lee S.	1976	Secretary, HRD	
Instructor, Accounting		Standley, Evelyn M.	1985
B.S.B.A., M.A., Appalachian State University		Administrative Assistant	
Sirois, Margi	1995	Board of Trustees/President	
Instructor, Veterinary Technology		Gaston College	
A.A.S., Camden County College		Starr, Sharon S. (R.N.)	1991
B.S., Rowan College of New Jersey		Instructor, Nursing	
M.S., Rutgers University		A.S.N., Gardner-Webb College	
Simpson, Gary	1976	B.S.N., University of N.C. at Chapel Hill	
Department Chairperson, Physical Education		Stewart, Terersa T.	1986
B.S., Appalachian State University		Director, Emergency Medical Services	
M.A.T., University of N.C. at Chapel Hill		B.S.H.S., Western Carolina University	
Ed.D., Nova University		Stokes, Steven L.	1990
Sisk, James	1996	Department Chairperson, Machinist	
Director of Corporate Education		B.S., Southern Illinois University	
B.A., Dallas Baptist University		M.S., Northern Illinois University	
M.S., Florida Institute of Technology		Stroup, Edward R.	1994
Skinner, Patricia A.	1994	Grounds Technician	
President		Stroup, Joyce E.	1978
Ph.D., The Ohio State University		Instructor, English	
S.A., Western Michigan University		A.A., Gaston College	
M.A., Western Michigan University		B.A., M.Ed., University of N.C. at Charlotte	
B.S., Western Michigan University		Thackston, Judith M. (R.N.)	1984
A.A., Lake Michigan College		Instructor, Nursing	
Smith, Lester K.	1994	B.S.N., M.S.N., University of N.C. at Charlotte	
Maintenance Technician		Trueman, Margaret S. (R.N.)	1991
Vocational Diploma, N.C. Textile Technology		Instructor, Nursing	
Smith, Lynn R.	1995	B.S., Indiana University of Pennsylvania	
Administrative Assistant to the Dean of Arts and Sciences		B.S.N., Queens College	
A.S.S., Lenoir Community College		Wall-Hill, Sheila N.	1992
Smith, Martha Y.	1984	Laboratory Staff Associate, Science Dept.	
Administrative Assistant to Dean of Industrial Technologies		B.S., Johnson C. Smith University	
B.A., Central Wesleyan College		Walters, Jimmy W.	1975
Smith, Rhonda B.	1980	Grounds Technician	
Associate Dean for Student Registration and Records		Warren, C. James	1985
A.A.S., Gaston College		Instructor, Computer Science	
B.T., Appalachian State University		B.S., Gardner-Webb College	
Smith, Sherry J.	1987	Wash, Allen G. (C.P.A.)	1977
Accounting Specialist		Instructor, Accounting	
B.S.B.A., University of N.C. at Greensboro		B.B.A., Augusta College	
Sorrow, Susan S.	1993	M.B.A., M.Acc, University of South Carolina	
Instructor, Psychology		Weaver, Paulette H.	1978
B.A., Sacred Heart College		Instructor, Coordinator, Life Skills	
M.S., S.S.P., Winthrop University		A.A., Gaston College	
		B.A., Sacred Heart College	

Weisgerber, Amy E.	1988	Whitley, Roger W.	1979
Administrative Assistant to Dean of Nursing & Health Sciences		Director, Criminal Justice Adacemy B.S., Mars Hill College	
Welch, Philip B., Jr.	1990	Witherspoon, Pinkie T.	1991
Director, Fire Protection Technology, Fire & Rescue Training, RESTC A.A.S., Gaston College		Lead Day Custodian/Recycling Coordinator	
Whisenant, David H.	1980	Wood, Bobby G.	1975
Instructor, Business B.S., M.A., Ed.S., Appalachian State University		Department Chairperson, Welding Catawba Valley Technical Institute Gaston College	
Whitesides, H. Annette	1986	Yarborough, Leslie	1991
Early Childhood Teacher A.A.S., Gaston College		Printing Assistant	
Whitesides, Linda H.	1989	Yates, Judy W.	1980
Bookstore Assistant		Counselor, Career Center A.A., A.A.S., Gaston College B.A., Sacred Heart College M.H.D.L., University of N.C. at Charlotte	

GLOSSARY

Accreditation: Gaston College is accredited by the Southern Association of Colleges and Schools to award associate degrees. Four engineering technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. The nursing programs are accredited by the North Carolina Board of Nursing.

ACT: American College Test (a placement exam).

ASSET: Assessment Student Success Entry Transfer. A placement instrument required of all students seeking a degree or diploma.

Associate of Applied Science: A 2-year degree that prepares you for the job market.

Associate of Arts: A 2-year degree that prepares you to transfer to a baccalaureate program.

Audit: When you audit a course you get neither a grade nor credit for taking it. You may not be required to take the exams or turn in assignments. You do pay tuition and fees.

Certificate: A 1-year program that teaches a special skill or prepares you for a job.

Contact hours: The actual number of hours you are in a certain class every week. In the schedule, each course lists its contact hours.

Corequisite: A course that must be taken at the same time as another course.

Continuing Education: The division of the college that offers non-credit courses for upgrading skills or for personal enrichment.

Credit by Exam: You may, under certain conditions, taken an exam and receive credit for a course without having taken the course. See this section in the catalog for more details.

Credit hours: Every class is worth a value called a credit hour. Every degree, diploma, and certificate program requires you to take a certain number of credit hours. In the quarterly schedule, each course lists its credit hours.

Curriculum: Usually refers to all the courses you have to take in order to get the degree you want.

Diploma program Vocational and technical programs that usually take four quarters to complete. They are not designed to transfer to a 4-year school.

Drop/Add: When you adjust your schedule by dropping courses you no longer wish to take and/or adding others. Drop/Add usually takes place after the first day of registration.

Dual Enrollment: The process by which high school students enroll for college credit.

Elective: Any course in a curriculum that is not a specific required course.

Full-time/part-time status: You are a full-time student when you are taking at least 12 credit hours.

GPA: Grade point average. See this section in the catalog to learn how to compute yours.

In-state: You have lived in North Carolina for at least the past 12 months.

Lab fee: A fee you pay when you take certain classes that have lab hours.

Non-degree status: A non-degree student is one who is just taking a few courses and doesn't want a degree, diploma or certificate. Also called "special student."

Out-of-state: You have maintained residency outside of North Carolina for 12 months or longer immediately prior to application.

Prerequisite: A course you must take before enrolling in another particular course. A prerequisite is intended to give you the background you need for certain courses.

Re-admission: After one year of non-enrollment, your admission file is dropped from the computer and you must re-apply.

SGA: Student Government Association.

Student activity fee: The fee you pay every semester (except summer) which pays for activities such as cook-outs, bands, lecturers, etc.

Transcript: A listing of every course you've taken at Gaston and the grades you've received. Available from the Registrar.

Transient: A transient student is one who goes to another college or university and who is taking a few courses at Gaston to transfer. (We may also say "in transit" or "visitor".)

Tuition: The cost of taking courses at a college. Tuition is based on the number of credit hours you take and whether you are an in-state or out-of-state student.

Usage fee: A fee you pay for use of the campus roads and parking facilities.

Withdrawal: To discontinue enrollment in one or more courses. Withdrawal forms are found in the Student Records Office.

INDEX

- A**
- About the College8
 - Academic Alert.....51
 - Accounting69
 - Accreditation11
 - Address Change16
 - Administration.....10
 - Admissions Information.....13
 - Adult Basic Education34
 - Adult High School35
 - Advanced Placement.....46
 - Architectural Technology70, 127
 - Art Gallery8
 - Associate in Arts Degree.....28, 60
 - Associate of Fine Arts Degree28, 63
 - Associate of Science Degree.....28, 66
 - Associate of Applied Science
Degree30
 - Attendance.....42
 - Air Conditioning, Heating and
Refrigeration110, 124-126
 - Auditing.....45
 - Automotive Systems Technology71
 - Automotive Systems Technology
Diploma113
 - Auditing a Course43
- B**
- Basic Law Enforcement Training131
 - Board of Trustees10
 - Bookstore56
 - Broadcasting Production
Technology72, 112
 - Business Administration.....73
 - Business Computer Skills130
- C**
- Cafeteria67
 - Calendar6
 - Campus Map231
 - Career Planning and Placement
Services56
 - Certificates31, 123
 - CEU32
 - Change of Address/Name.....16
 - Change of Program44
 - Charlotte Area Education
Consotrium48
 - Child Care Center.....57
 - Child Dev. Certificate132
 - Civil Engineering Technology75, 133
 - College-by-Cassette38
 - Cooperative Education38
 - Continuing Education.....32
 - Corporate Education.....32
 - Cost18
 - Counseling.....56
 - Course Descriptions143
 - Course Overload.....46
 - Credit by Examination46
 - Credit Hours46
 - Criminal Justice.....77
 - Criminal Justice Academy33, 174
- D**
- Deans List.....52
 - Degree Programs59
 - Developmental Education35
 - Diplomas31, 109
 - Dismissal, Grounds for Student51
 - Distance Learning38
 - Dropping a Class.....44
 - Dual Enrollment15
- E**
- Early Childhood Associate.....79
 - Early Childhood Education Diploma....113
 - Electrical/Electronics Technology.....114
 - Electronics Engineering
Technology81, 115
 - Electronics Servicing.....116
 - Emergency Medical Services.....33
 - Emergency Medical Science83
 - Emergency Services Training
Center8
 - English as a Second Language.....35
- F**
- Facilities8
 - Faculty Listing219
 - Fees.....18
 - Financial Aid20
 - Fire and Rescue.....33
 - Fire Protection Technology85
 - Food Service.....57
 - Foundation Board of Directors10
 - Focused Industrial Training
(FIT)32
- G**
- General Educational
Development (GED)34

Glossary.....	228	Office Systems	99, 122
Grade Point Average	50	Office Systems Tech-Legal	101
Grading System.....	48	Office Systems Tech-Medical	103
Graduation.....	53	Operations Management	
H		Technology	122
Honor Lists.....	52	Operations Management	
Honesty Standards.....	42	Technology Certificate.....	178
Housing	57		
Human Resources Development		P	
Program (HRD).....	35	Paralegal	105
I		Pell Grant	21
Identification Cards.....	58	Phlebotomy.....	141
Industrial Emergency Response	34	Policies and Procedures	41
Industrial Engineering		Practical Nursing	121
Technology	86, 134	President's Honor List.....	52
Industrial Maintenance, Diploma.....	117	Privacy Act	43
Industrial Maintenance,			
Certificate	135	R	
Information Highway	38	Radio Station	56
Information Systems	90	Records Office	43
Information Systems/Programming	91	Refund Policy.....	19
Industrial Management Tech.....	88, 136	Refunds, Textbook	56
Insurance (Student)	19	Regional Emergency Services	
In-State Tuition.....	18	Training Center	33
International Students.....	15	Registration	44
		Repeating a Course	50
J		Residency	15
Job Placement.....	57	Right-to-Know	44
L			
Learning Center.....	36	S	
Library	8	Satisfactory Academic Progress.....	50
Life Skills	34	Scholarships	21, 26
Lincoln Campus	8	Small Business Center	32
		Student Activities	57
M		Student Identification Cards.....	58
Machining Technology	93, 118, 137, 138	Student Records	43
Mechanical Drafting Technology	94, 139	Student Services	55
Mechanical Engineering		Staff Listing.....	219
Technology	95, 119	Summer Camp.....	57
Medical Assisting	97		
Morris Library	8	T	
N		Telecourse.....	38
New and Expanding Industry		Transfer to Gaston from	
Programs.....	32	Another College	47
Non-Credit Courses.....	32	Transfer Program.....	28
Nursing Assisting	140	Transfer to Senior Institutions.....	47
Nursing, RN	98	Transcript of Grades.....	47
Nursing, Practical.....	121	Tuition	18
		Tutoring	36, 37
O		Two-Way Classrooms	38
Occupational Extension	32		
		U	
		University Center at	
		Gaston College	39

V

Veterinary Med. Technology107
Veterans Information.....26
Vocational Rehabilitation26

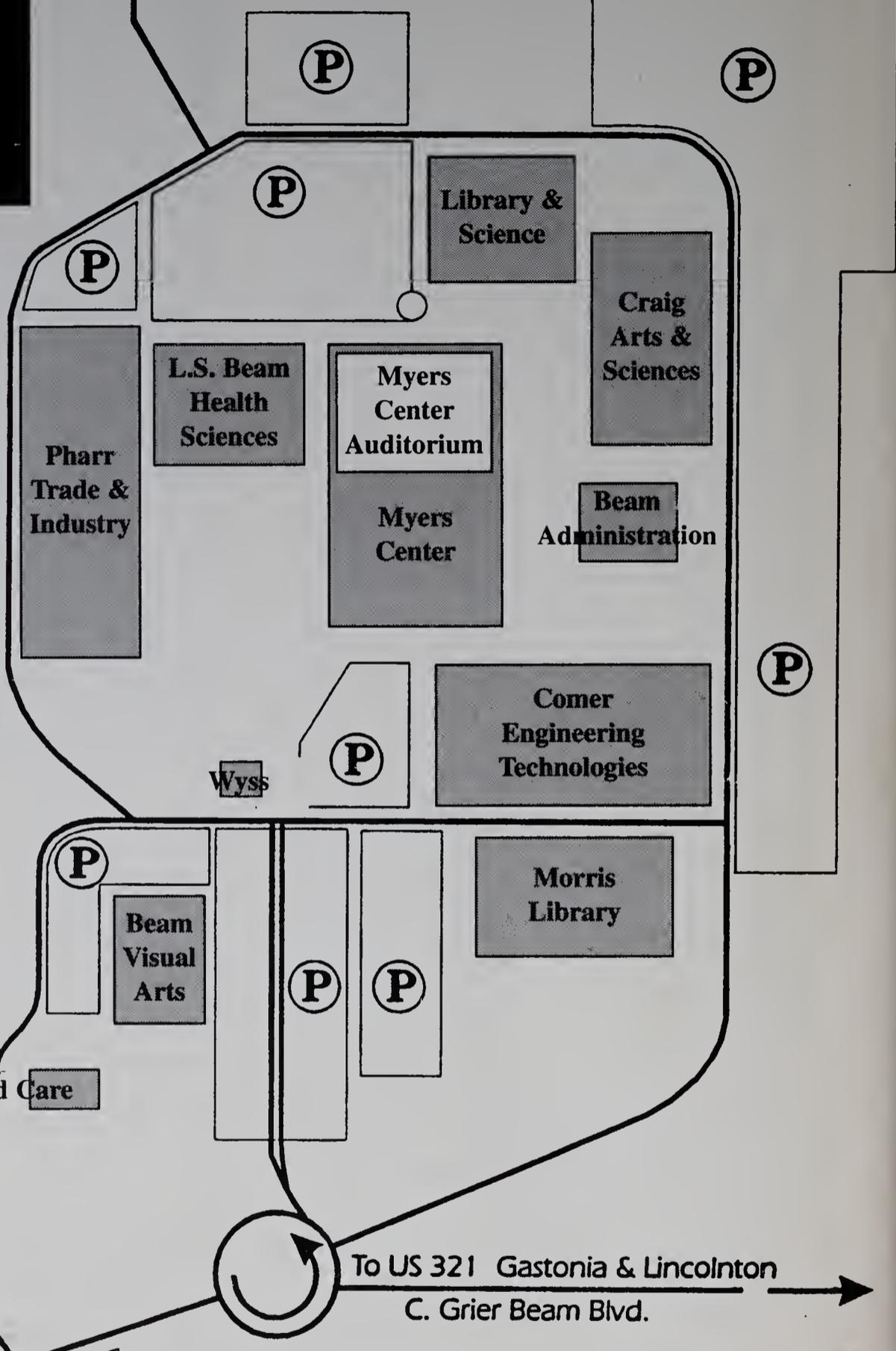
W

Welding122
Withdrawal from a Class.....45
Work-Study Program.....22

Campus map of GASTON COLLEGE

P indicates student and public parking

To NC 279
Dallas/Cherryville Highway



Maintenance & Receiving

To US 321 Gastonia & Lincolnton
C. Grier Beam Blvd.

Regional Emergency Services
Training Center

We are in Dallas just off US 321, two miles north of I-85 and Gastonia. From US 321, take the Grier Beam Blvd/Gaston College exit and follow the signs. We also have an entrance on NC 279, the Dallas-Cherryville highway. Please observe all parking signs. Between 8:00 am and 5:00 pm, some parking areas are reserved.

GASTON COLLEGE
201 Highway 321 South
Dallas, NC 28034-1499

Get Ready

Invest in yourself