# Mitcilell Community College 



1994-1995

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## GENERAL CATALOG 1994-95

## MITCHELL COMMUNITY COLLEGE



June 1994
This Catalog is published annually by Mitchell Community College as an announcement of programs and courses. Its purpose is to provide information and does not constitute a contract. The College has the right to make changes in policies and procedures and to add or withdraw courses as needed.

## E DIRECTORY

If you have any questions after reviewing this publication, please look below to find the proper office to contact:
Admissions ..... 878-3266
Recruiter ..... 878-3280
Specialists/Counselors ..... 878-3267/3288
Business Office ..... 878-3210
Career Planning and Placement ..... 878-3242
Continuing Education ..... 878-3220
Dean of Student Services ..... 878-3281
Financial Aid ..... 878-3256
General Information/Switchboard ..... 878-3200
Learning Resource Center ..... 878-3271
Placement Testing ..... 878-3242
President's Office ..... 878-3205
Records/Registrar ..... 878-3246
Vice President for Instruction ..... 878-3264

Address correspondence to any office in care of:
Mitchell Community College
West Broad Street
Statesville, NC 28677

## CORRESPONDENCE AND PHONE DIRECTORY

500 WEST BROAD STREET<br>STATESVILLE, N. C. 28677<br>(704)878-3200/FAX (704)878-0872

ADMINISTRATION Dr. Douglas Eason878-3205
ADMISSIONS Judy HamiltonMary Lou LawsonJill Powell878-3200
BUSINESS OFFICE Larry Williams878-3202
CURRICULUM PROGRAMS Dr. Virginia Mitchell878-3264
CONTINUING EDUCATION Dr. William Findt878-3224
FINANCIAL AID Karen Furr878-3255
HIGH SCHOOL DIPLOMA/GED PROGRAM Carol Johnson878-3221
LIBRARY SERVICES Rex Klett878-3271
STUDENT SERVICES Billie A. Meeks878-3281


Greetings:
Mitchell Community College is an old and proud institution which has a vision for serving the needs of students into the 21 st Century. Moreover, Mitchell is an institution with a strong tradition for putting students first. We urge you to invest in your future by becoming a student at your community college ... Mitchell Community College. We believe that the quality of a person's life is directly affected by the opportunity and capacity to continue learning over a lifetime. We hope you will look at MCC as the place where you can grow and develop through learning long into the future.

## Sincerely, <br> Ongho. O. Enow <br> Douglas O. Eason <br> President

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An Affirmative Action/Equal Opportunity Employer

# MITCHELL COMMUNITY COLLEGE STATESVILLE, NC 

## Academic Calendar for 1994-95

FALL QUARTER 1994

| August | 30 | Tuesday | Faculty Workshop |
| :---: | :---: | :---: | :---: |
|  | 31 | Wednesday | Registration |
| September | 1 | Thursday | Faculty Workshop |
|  | 2 | Friday | Faculty Workday |
|  | 5 | Monday | Labor Day Holiday |
|  | 6 | Tuesday | Classes Begin |
|  | 6-7 | TuesdayWednesday | Late Registration \& Drop/Add |
| October | 12 | Wednesday | Midterm |
|  | 28 | Friday | Last day to withdraw from a class or school without a Grade of "F" |
| November | 21 | Monday | End of Fall Quarter |
|  | 22 | Tuesday | Grades Due. |
|  | 24-25 | ThursdayFriday | Thanksgiving Holidays |

## WINTER QUARTER 1994-95

| November | 28 | Monday | Registration |
| :--- | ---: | :--- | :--- | :--- |
|  | 29 | Tuesday | Faculty Workday |
|  | 30 | Wednesday | Classes Begin |
| Nov. 30-Dec. 1 | Wednesday- | Late Registration \& Drop/Add |  |
|  |  | Thursday |  |
| December | $22-$ | January 2 | Christmas Break |
| January | 3 | Tuesday | Classes Resume |
|  | 16 | Monday | Martin L. King Holiday |
|  | 18 | Wednesday | Midterm |
| February | 3 | Friday | Last day to withdraw from a class or school |
|  |  |  | without a Grade of "F" |
|  | 27 | Monday | End of Winter Quarter |
|  | 28 | Tuesday | Grades Due |

## SPRING QUARTER 1995

| March | 6 | Monday | Registration |
| :--- | ---: | :--- | :--- |
|  | 7 | Tuesday | Faculty Workday |
|  | 8 | Wednesday | Classes Begin |
|  | $8-9$ | Wednesday- | Late Registration |
| April | 13 | Thursday | Thursday | | Midterm |
| :--- |
|  |
|  |
|  |


| May | 8 | Monday | Last day to withdraw from a class or school <br> without a Grade of "F" |
| :--- | ---: | :--- | :--- |
|  | 30 | Tuesday | End of Spring Quarter |
| June | 31 | Wednesday |  |
| Grades Due |  |  |  |

## EQUAL OPPORTUNITY STATEMENT

Mitchell Community College is committed to a policy of affirmative action and equal opportunity for all qualified applicants for employment, all employees, all applicants for admission and all students. Such employment and educational opportunities are offered without regard to race, color, religion, national origin, sex, age, political affiliation/belief or disability. This policy incorporates the requirements of Federal Executive Order 11246 and 11375 as amended, and all applicable Federal and State laws and regulations.

## MISSION STATEMENT

Mitchell Community College is a comprehensive, open-admissions community college dedicated to meeting the post-secondary education and training needs of the citizens of Iredell County and surrounding areas. The college provides an array of high quality programs at low cost in an historically rich environment. Mitchell is a student-centered institution where all persons are encouraged to develop their abilities in a community that respects diversity and is supportive of individual achievement. Concerned with the social, civic, cultural, and economic development of the community as a whole, instruction programs are focused on meeting the education and training needs of all persons over eighteen years of age and persons sixteen years of age and older with special needs. Mitchell Community College commits its resources to the following purposes: (l) to provide associate degree programs for the first two years of academic courses leading to baccalaureate and professional degrees; (2) to provide associate degree, diploma, and certificate programs to meet the pre-service and in-service manpower training needs for industry, business, government, and service occupations; (3) to serve the adult population with basic education and salable skills; (4) to enhance personal development through general and continuing education.

## LOCATION

Mitchell Community College is located in Piedmont North Carolina, downtown Statesville, in the foothills of the Blue Ridge Mountains. Interstate Highways 40 and 77 intersect on the outskirts of the city. Statesville is situated approximately 50 miles north of Charlotte, and 50 miles southwest of WinstonSalem. The population of Statesville and Iredell County is approximately 92,000.

## MEMBERSHIP AND APPROVALS

Mitchell Community College is a member of:
American Association of Community Colleges
North Carolina Department of Community Colleges
Southern Association of Colleges and Schools
National Association of Student Financial Aid Administrators
Mitchell Community College is recognized and approved by: North Carolina Department of Public Instruction Division of Vocational Rehabilitation, Southern Association of Colleges and Schools, North Carolina State Board of Community Colleges.

## VETERANS

Persons enrolled at Mitchell Community College will be eligible to receive Veteran educational benefits if they qualify.



## ADMISSIONS, EXPENSES AND FINANCIAL AID



## ADMISSION

Mitchell Community College subscribes to the "Open Door" policy as set by the North Carolina Department of Community Colleges. It should be noted that a high school diploma or GED is required for entry into all post-secondary programs except for some vocational curricula.

Mitchell Community College is an equal educational opportunity institution; and in keeping with this policy, the college serves students without regard to race, color, sex, religion, creed, handicap, age or national origin.

## ADMISSION REQUIREMENTS

1. High school graduate or GED equivalency diploma.
2. Minimum age of 18 without a high school diploma or its equivalent qualifies for some vocational curricula or as a "Special Credit Student" in College Transfer or Technical programs.
3. Minimum age of 16 with identified special needs and written permission from high school principal and/or superintendent of the school system the student would normally attend.

## ADMISSION PROCESS

Completion of the following steps is required for all curriculum programs:

1. Completed application;
2. High school and college (if transfer student) transcripts; and
3. Placement tests (except Cosmetology students).

## ADMISSION-TRANSFER

Transfer students may enter Mitchell Community College upon completing the process outlined above. Official transcripts of all previous college course work must be submitted. Credit will be granted whenever possible, as stated in the Transfer of Credits Policy.

## ADMISSION-VISITING STUDENTS

A student who has been accepted by or is enrolled at another institution may enroll at Mitchell Community College as a visiting student. Such students must complete an application and should have the permission of an appropriate official at the home institution. This official should specify the courses to be taken at Mitchell. The student should enroll in only the specified courses and then only if the required prerequisite courses or their equivalents have been completed.

## ADMISSION - CONTINUING EDUCATION

Students who are high school graduates or 18 years old or 16 years old with special permission are eligible to enter a Continuing Education Program. Further information is available in the Continuing Education section of this publication.

## SPECIAL CREDIT STUDENTS

A special credit student is defined as one who is enrolled in curriculum credit courses but who is not working toward a degree or diploma. Special credit students will be allowed to register for courses provided that prerequisite requirements are met.

For admission, special credit students need only to complete the application which is available in the Admissions Office. Special students, however, will be asked to submit proof of high school graduation and meet placement criteria if they desire to be reclassified as regular students. Special students will pay the same tuition and fees as regular students.

## PLACEMENT TESTING

All students, except cosmetology students, who enter a curriculum program must take the college placement tests.

## TRANSFER OF CREDITS

Educational work taken at a regionally accredited institution in which a grade of " D " or better was earned and a comparable course is offered at Mitchell Community College may be accepted in transfer if appropriate to the student's program of study, provided the student has an overall "C" average. If the overall average is less than 2.0 , only grades of " C " or better will be accepted.

Work at institutions which are not regionally accredited is evaluated on the basis of the current issue of Report of Credits Given by Educational Institutions published by the AACRAO and similar publications. Credit toward technical and vocational programs may be accepted from other agencies at the discretion of the college.

Final acceptance or rejection of transfer credits lies with the college. A minimum of 30 quarter hours credit in the student's program of study must be earned at Mitchell to be eligible for graduation.

## FOREIGN APPLICANTS

Proficiency in the English language and satisfactory academic records are important factors in the admission decision for all applicants from outside the United States. Foreign students must have graduated from a secondary school
that is equivalent to secondary schools in the United States. Furthermore, the Test of English as a Foreign Language (TOEFL) and the College placement tests are required of all foreign applicants. Students should contact a university in their native land for information about the Test of English as a Foreign Language. Foreign applicants should write to the Admissions Office of Mitchell Community College for additional information.

## RESIDENCY REQUIREMENT

Under North Carolina Statute 116-142.1, a person must qualify as a resident for tuition lower than that for nonresidents. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least twelve months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination. Further information and necessary classification forms may be obtained from the Office of the Dean of Student Services.

Regulations concerning the classification of students by residence are set forth in "A Manual to Assist The Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." A copy of the manual is available in the Office of the Dean of Student Services.

## CHANGE OF PROGRAM

Students who change from one program to another within the institution will have credit hours and quality points transferred according to the requirements of the new program. Only courses completed within the new program will be used to calculate the grade point average.

## COLLEGE LEVEL EXAMINATION PROGRAM

Credit may be allowed for up to 30 quarter hours of college work based on appropriate scores on the CLEP General Examination where appropriate to the student's program of study.

## THE COLLEGE BOARD ADVANCED PLACEMENT PROGRAM

Credit may be allowed for up to 30 quarter hours of college work based on exams as given through the College Board Advanced Placement Program. Scores on the exams must be three, four, or five. Credit is allowed only if appropriate to the student's program of study.

## MILITARY SERVICE EXPERIENCE

Veterans may receive credit for USAFI courses and for service school training where appropriate to the student's program and where a comparable course is offered by the college. USAFI courses are evaluated on the basis of the catalog of the USAFI. School Service Training is evaluated on the basis of A Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education. Credit, not to exceed three quarter hours, is allowed for physical education to veterans upon presentation of discharge or separation papers appropriate to the veteran's course of study. Final acceptance or rejection of the credit lies with the college.

## DRUG AND ALCOHOL POLICY

The abuse and use of drugs and alcohol are subjects of immediate concern in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users of drugs or alcohol may impair the well-being of all employees, students and the public at large; drug and alcohol usage may also result in damage to college property. Therefore, it is the policy of this college that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance or alcohol, is prohibited while in the workplace, on college premises, or as part of any college sponsored activities. Any employee or student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution. The specifics of this policy are as follows:

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

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

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

Each employee or student is required to inform the college, in writing, within five (5) work days after he or she is convicted for violaton of any federal, state, or local criminal drug statute where such violation occurred while in the workplace, on college premises, or as part of any college sponsored activity. A conviction means a finding of guilt (including a plea of nolo contender) or the imposition of a sentence by a judge or jury in any federal or state court.

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

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

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

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

The term "alcoholic beverage" includes beer, wine, whiskey, and any other beverage listed in Chapter 188 of the General Statutes of North Carolina.

## COMMUNICABLE DISEASE POLICY FOR MITCHELL COMMUNITY COLLEGE

Mitchell Community College places a high priority on the need to prevent the spread of serious communicable diseases on its campuses. The college is committed to educating its staff, students and the community, about serious communicable diseases. Specifically, because there is currently no cure or vaccine for Acquired Immune Deficiency Syndrome (AIDS), education regarding methods by which this virus may be transmitted and how to prevent transmission is essential. By adopting this policy, it is the intention of the college to promote the health and regular school attendance of its students so that they may attain their maximum potential for learning.

In keeping with the open access policy of Mitchell Community College, students with serious communicable diseases may attend college whenever, through reasonable accommodation, the risk of transmission of the disease and/ or the risk of further injury to the student or to other students and/or faculty is sufficiently remote in such setting so as to be outweighed by the detrimental effects resulting from the exclusion of the students from college. Placement decisions will be made by using this standard in conjunction with current, available public health department guidelines concerning the particular disease in question. Individual cases will not be prejudged; rather, decisions will be made by health care professionals based upon the facts of the particular case. The determination of whether a student with a serious communicable disease may attend college shall be made by the President in accordance with procedures implemented by the College. The President's decision shall be based upon expert medical advice and will include consultation with all interested parties.

The college shall respect the right to privacy of any student who has a serious communicable disease. The student's medical condition shall not be disclosed. If necessary, it is to be discussed only with the President or his designee and only to the extent necessary to minimize the health risks to the student and others on campus. The number of personnel aware of the student's condition will be kept to the minimum needed to assure proper care of the student and to detect situations in which the potential for transmission of the disease may increase. Persons deemed to have a "direct need to know" will be provided with the appropriate information; however, these persons shall not further disclose such information.

Faculty may offer students the opportunity to reveal medical conditions as a matter of promoting the students' own safety in the event of an unexpected medical crisis while the students are on campus.

## - CONTINUING EDUCATION

Mitchell Community College strives to provide academic and occupational programs consistent with the educational needs of Iredell and surrounding counties. The college provides opportunities for people to further meet their educational goals by offering programs which enable people to pursue vocational, cultural, and civic interests. Courses include formal academic learning, cultural advancement, vocational and technical improvement, and personal enrichment.

Classes are generally held at the Continuing Education Center located at 701 West Front Street in Statesville. Continuing Education classes are also offered at the Mooresville Center, 219 North Academy Street in Mooresville and at various other locations throughout Iredell County.

Continuing Education Units (CEU's) are awarded to all classes with the exception of Adult Basic Education, Adult High School and craft classes. A CEU is defined as "ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction." These units provide a means of recording and accounting for non-credit courses, programs and activities.

Programs and courses within Continuing Education may be categorized as either Community Service, Occupational Extension, Basic Skills Programs, or Business and Industry Services. For information please telephone (704) 878-3220.

## Community Service

Community service programs are offered which contribute to the cultural, civic and personal enrichment for the citizens of Iredell County. Programs are sponsored which contribute to the quality of life of the community. Programs offered include:

+ avocational courses which emphasize an individual's personal and leisure interests
+ cultural enrichment and civic activities
+ academic courses in mathematics, sciences, and social sciences
+ practical skills courses in homemaking and mechanics


## Occupational Extension

Programs are offered in ocupational extension that contribute to the economic development of the region. Training and upgrading of skills are provided for the specific requirements of individuals, businesses, and industries.

## Attendance

Most classes are scheduled on a quarterly basis. However, special workshops and industrial courses are more frequently offered. Schedules of classes are publicized through brochures, the local newspaper and radio stations. Classes usually meet one to three hours each night, Monday through Thursday, and regular attendance should be maintained. Courses offering certificates require at least 80 percent attendance.

## Fees and Supplies

There is generally a registration fee of $\$ 35.00$ for occupational courses and $\$ 30.00$ for community service classes. Those students enrolled in courses for Adult Basic Education, Adult High School, volunteer fire departments, local law enforcement, and the Department of Corrections are exempt from the registration fee. When self-supporting classes are sponsored, charges are whatever is necessary to pay for the class. Books and limited supplies are available through the college bookstore. Their costs vary according to individual courses.

## Registration Fee Refund

Mitchell Community College does not refund extension registration fees except under the following circumstances:

1. For classes that are scheduled to meet four times or less, a 75 percent refund shall be made upon the request of the student if the student officially withdraws from the class(es) 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 from the class(es) prior to or on the official 20 percent point of the class(es). Requests for refunds will not be considered after the 20 percent point.

## BASIC SKILLS PROGRAMS

Outlined below are the programs presently offered through the Mitchell Community College Division of Continuing Education.

Adult Basic Education (ABE) - designed to assist adults in the fundamentals of English, math, reading, science and social studies. Upon completion of ABE, students may enroll in the GED or Adult High School Diploma Program.

FEE: No charge.
Adult High School Diploma - recommended for persons who desire a structured academic program of high school completion. The required courses of study are English, math, reading, science and social studies. Each student
takes a standardized test on each subject and when all five are satisfactorily completed, a diploma is awarded by Mooresville Graded School District or IredellStatesville School System. To qualify for this program, one must:

1. Be a legal North Carolina resident;
2. Be at least 18 years old or 16 years old with written permission from the Superintendent of Schools and a notarized permission letter from a parent or guardian.
FEE: No charge.
English As a Second Language/Citizenship - English as a Second Language is for foreign-born students who would like to speak English or improve their skills. Preparation for U.S. Citizenship is also available.
G.E.D. High School Equivalency Program - designed to test a person's knowledge in five areas: English, math, reading, natural science and social studies. Upon satisfactory completion of tests, which are administered one week during each month, the Equivalency Diploma is issued by the North Carolina Department of Community Colleges. The G.E.D. is recognized as the equivalent of a high school diploma. To qualify for this program, you must:
3. Be a legal North Carolina resident;
4. Be at least 18 years old or $\mathbf{1 6}$ years old with a special need and completion of a form available from the G.E.D. Examiner of the Continuing Education office and permission from the superintendent of schools and parents. This form is to be notarized.
FEE: $\$ 7.50$ initial testing fee.
Learning Labs - provide adults with individually scheduled, planned and paced instruction.

Mitchell Community College has two Learning Labs - one located in Statesville at the Continuing Education facility and the other at the Mooresville Center.

| Statesville Hours: | Monday-Thursday | $8: 00 \mathrm{am}-9: 00 \mathrm{pm}$ |
| :--- | :--- | :--- |
|  | Friday | $8: 00 \mathrm{am}-12: 00$ noon |
| Mooresville Hours: | Monday-Thursday | $8: 30 \mathrm{am}-5: 00 \mathrm{pm}$ |
|  | Friday | $8: 30 \mathrm{am}-12$ noon |

FEE: No charge.

## BUSINESS AND INDUSTRY SERVICES

## FOCUSED INDUSTRIAL TRAINING

The Focused Industrial Training Program was created by the North Carolina Department of Community Colleges to strengthen the partnership for training between the private industrial community and the local community college in
an effort to maintain a trained workforce on an on-going basis. This program is able to address changes in new technologies by providing customized training.

Focused Industrial Training can serve the training needs of an existing industry's skilled and semi-skilled workers through a cooperative effort in assessing training need and delivery of training associated with industrial occupations. This program fills training needs which fall outside the guidelines for occupational extension, new and expanding industry, and the vocational and/or technical curriculum.

## SMALL BUSINESS CENTER

The purpose of the Small Business Center is to attract, train, counsel, and provide educational services for existing and prospective small business owners and employees. The mission of the Small Business Center is to be active in the economic growth of Iredell County by providing assistance to small businesses in order to increase the number of start-ups, expand existing small businesses, and reduce the number of small business failures.

Seminars, workshops, and courses designed for small business owners and employees are offered each quarter. Many of the seminars and workshops are provided at no cost to the participant or for a nominal fee. Expert presenters from all areas of North Carolina are brought to the campus to assist in meeting the training needs of small businesses.

In addition to educational programming, the center provides networking opportunities for clients with the many other resources available to assist the small business owner, particularly the Small Business Technology and Development Center, Winston-Salem State University.

## NEW AND EXPANDING INDUSTRY

This program provides for the training needs of industries new to Iredell County and also for existing companies that are undergoing a major expansion which result in the addition of twelve or more new production jobs. The training program is administered by Mitchell Community College and serves the total college service area of Iredell County. The State of North Carolina funds the new and expanding industry program, with the funds being supplemental to the overall college operational budget.

The training programs are designed cooperatively with the industry and local college personnel with customization the primary criteria for meeting the particular needs of each industry. Flexible and custom-designed, the program can accommodate almost any job found in a manufacturing or service company.

## MOORESVILLE CENTER

The Mooresville Center is located at 219 North Academy Street in Mooresville. The facilities include a Learning Lab, a Basic Skills Lab, two computer labs which include the Matsushita Computer Room, a modern networking lab, and classroom spaces for curriculum and continuing education classes.

This is also the site of the Mooresville Allied Health Center which is the coordination of resources of Mitchell Community College, Lake Norman Regional Medical Center and the Mooresville Graded School District to meet the health education, training and service needs of Iredell County.

Curriculum programs courses offered at the Mooresville Center throughout the year include: College Transfer, Pre-liberal Arts, Accounting, Business Administration, Business Computer Programming, Nursing Assistant and Medical Assisting.

Other classes offered at the center include English as a Second Language (ESL), occupational extension courses, new and expanding industry training, and community service courses, seminars and a wide array of allied health classes.

The Mooresville Center hours of operation are from 8:00 a.m. to 10:30 p.m. Monday through Thursday and 8:00 a.m. to $4: 30$ p.m. on Friday. Weekend classes for Friday evenings and Saturdays are scheduled on a regular basis. Please telephone the center at 663-1923 for further information.

## EXPENSES

## STUDENT CHARGES AND REFUNDS

Mitchell Community College operates on the quarter system. Students are required to pay all charges at the time of registration. Tuition charges are set by the State Board of Community Colleges and are subject to change without notice.

Tuition and fees for each quarter are payable on or before the date of registration. Any student who is unable to make payment at that time must make a special arrangement with the Financial Aid Office.

Written verification for third party billing must be received by the Business Office before a student will be allowed to register without making payment at the time of registration.

A student who has an outstanding balance due to the college is not eligible for re-registration.

No student will be allowed to graduate, receive a diploma or certificate, or a transcript of their records, nor will any information concerning their records be forwarded to any other institution or other person so long as the delinquent account is outstanding.

## GENERAL GUIDELINES FOR STUDENT CHARGES AND REFUNDS

Tuition: Current tuition charges are $\$ 13.25$ for in-state and $\$ 107.50$ for out-of-state per quarter hour with a maximum charge of $\$ 185.50$ and $\$ 1505.00$ per quarter respectively.

Exceptions: Students who have paid tuition at one institution and who are given permission to transfer to another institution shall be issued a letter verifying payment has been made for the quarter. The institution to which they are transferring will accept the permission letter in lieu of payment.

A student may enroll for the same quarter at two or more institutions within the North Carolina Community College System. The total amount of tuition paid may not exceed the maximum charge. N.C. resident 65 or over are not required to pay tuition.

Refunds: Mitchell Community College issues tuition refunds according to the North Carolina state policy as published in section 2D. 0200 of the North Carolina Administrative Code. That code permits full tuition refunds to be made if a student withdraws prior to the beginning of the first day of classes. A 75 percent refund may be made upon request of the student if the student officically withdraws from the class(es) prior to or on the official 20 percent point of the class(es) or the 20 percent point of the quarter if the student officially
withdraws from the college. Request for refunds wil not be considered after the 20 percent point. Student activity fees are not refunded.

Students receive full refunds for classes cancelled by the College.
If a student dies during the quarter, all tuition and fees for the quarter are refunded to the estate of the deceased.

Library Fines: A fee for lost books and over-due books is charged. If a lost book fee is charged and the book is later found and returned, the fee is refunded.

Graduation Fees: $\$ 30.00$ ( $\$ 10.00$ for each additional degree). These fees are non-refundable.

Audit Fee: Regular tuition charges apply for classes taken for audit.
Student Fee: All students are charged 70 cents per quarter hour up to twelve credit hours (full-time).

All expenditures from these funds are related directly to student activities.
Exceptions: Persons who are employed as law enforcement officers and students who take courses that are taught off campus are not charged a student activity fee. Documentation must be presented at the time of registration.

Transcripts: No transcript is released without the written permission of the student and twenty-four hours notice is required. Transcripts will not be released until all financial obligations to the College have been met.

Books: Cost of books will vary from program to program; however, most students pay an estimated $\$ 480$ for books for the academic year, with the first quarter charges being considerably more than the other two quarters.

Special Fees: Because of the nature of some programs, additional facility charges, supplies, materials, tools, etc. may be required for purchase by the student.

## VETERAN/DEPENDENT/NATIONAL GUARD/ RESERVE ASSISTANCE

Eligibility: Persons enrolled in an approved program will be eligible to receive benefits if they qualify.

Exclusions: Audited courses, telecourses, credits by exam, courses taken outside of the curriculum, repeated courses with a passing grade, or any other courses not counted toward graduation will not be used in calculating hours for payment purposes.

Attendance: Recipients are paid to attend class. A student who withdraws from class must notify the Assistant Financial Aid Officer immediately to avoid overpayment. The student is responsible for notifying the Assistant Financial Aid Officer and the Registrar's Office of any reason for non-attendance.

Standards of Progress: All VA recipients must meet the requirements for academic progress as set forth in the Catalog and the Student Handbook. Any recipient whose overall GPA in the current major is below school standards will be placed on academic probation. If at the end of the probationary quarter school standards are again not met, a second quarter of probation will be allowed. If at the end of the second probationary quarter school standards have not been met, the student's enrollment will be terminated for unsatisfactory progress with the Department of Veteran Affairs and be referred to a Mitchell Community College counselor to set up conditional status guidelines. Counseling notes will be provided to the Asst. Financial Aid Officer. When the student has met the conditions as set forth by the counselor, the Asst. Financial Aid Officer will be notified, and the recipient will be eligible to be certified with the Department of Veteran Affairs at the beginning of the next quarter.

Application Process: Students should apply for admission to Mitchell, contact high school and colleges attended to send official transcripts to Mitchell Community College, and provide the Registrar's Office with service schools or tests which may be evaluated for credit. Contact the Asst. Financial Aid Officer for an application for benefits and additional information needed for certification.

## SERVICEMEMBERS OPPORTUNITY COLLEGE

Having pledged to abide by the principles and criteria of Servicemembers Opportunity Colleges (SOC), Mitchell Community College has been designated as a Servicemembers Opportunity College.

## U.S. ARMY RESERVE OFFICERS TRAINING PROGRAM

Mitchell Community College has a cooperative program administered by Davidson College. Detailed information on this program is available from the Department of Military Science, Davidson College, Davidson, N.C.

## FINANCIAL AID INFORMATION

The purpose of financial aid is to help students who would be unable to attend Mitchell without assistance. To be considered for aid, a Free Application for Federal Student Aid and an Institutional Financial Aid Application must be completed.

Application Procedures - Obtain a Free Application for Federal Student Aid (FAFSA) and an Institutional Financial Aid Application from high school counselors or the Financial Aid Office at Mitchell. Complete and mail the FAFSA. Incomplete forms will not be processed. Be sure to list Mitchell Community College, West Broad Street, Statesville, North Carolina in Section G so that the information can be obtained from the U.S. Department of Education. The Student

Aid Reports must be brought to Mitchell as soon as they are received. Complete and return the Institutional Financial Aid Application to Mitchell.

In order to apply for scholarships at Mitchell Community College, a Financial Aid Application must be completed and returned to the Financial Aid Office. Completed applications will then be considered by the Mitchell Community College Scholarship Committee. The available funds are distributed among eligible students according to need. Students will be notified of financial aid awards. For more information contact the Financial Aid Office at Mitchell Community College.

Types of Aid Available: Federal Pell Grant, Federal Work-Study Program (FWS), Federal Supplemental Educational Opportunity Grant (FSEOG), North Carolina Student Incentive Grant (NCSIG), Federal Stafford Loan, Scholarships, Scholarship/Loans, and Veteran's Educational Aid (See Veteran's Officer)

A student may receive several different awards. Grants are not repaid. Federal Work-Study awards must be earned as hourly wages for part-time work on campus. The interest rates and terms of the Federal Stafford Loans are disclosed by the lender.

Students denied financial aid are entitled to an explanation as to the basis for denial. Appeals must be made in writing to the Financial Aid Appeals Committee and addressed to the Financial Aid Officer within 10 days of receiving notification of denial of aid. The Financial Aid Appeals Committee shall convene for the purpose of hearing the appeal and notify the student as to the committee's decision.

DISTRIBUTION: Recipients of Federal Pell Grant, FSEOG, and scholarships may charge their tuition, fees, books, and supplies against their financial aid eligibility for the quarter for which they are registering. If their financial aid is greater than the expenses charged, a check is issued to the student after midterm each quarter. The dates of the disbursements are sent to the student with his financial aid award letter.

Some agencies issue checks directly to the students. Checks to the recipients of the Iredell Memorial Hospital Scholarship/Loan Program and the Davis Community Hospital Scholarship/Loan Program are available on registration day each quarter. The checks issued for the North Carolina Student Incentive Grant, Nurse Scholars Program, and Nurse Education Scholarship/Loan Program are available on the first day of class each quarter. The Federal Stafford Loan checks are available for the students no earlier than the first day of class each quarter; however, a first year undergraduate student borrower who has not previously received a Federal Stafford Loan can not receive his first check any earlier than 30 days after the first day of the student's program of study.

Transfer Student: If a student transfers to Mitchell from another school, a financial aid transcript and duplicate Student Aid Reports (if applicable) must
be submitted. A borrower from Federal Stafford Loan Program should check with the lender to be sure the loan can continue at the new school.

Satisfactory Academic Progress: Financial aid recipients, in addition to maintaining the cumulative grade point average as specified in the College Catalog, must complete 8 credit hours per quarter if full-time, 6 credit hours if three-quarter time, and 4 credit hours per quarter if half-time. The maximum number of quarters allowed to complete the degree for financial aid purposes are as follows: College Transfer - 12 full-time, 16 three-quarter time, and 24 halftime; Technical - 13 full-time, 17 three-quarter time, and 25 half-time; Vocational - 9 full-time, 12 three-quarter time, and 18 half-time. If a recipients does not meet the grade point average and minimum hours completed per quarter, the student will be placed on academic probation the proceeding quarter. If at the end of the probationary period, the qualitative and quantitative aspect of satisfactory progress has not been met, the student will be notified of termination from financial aid. Reinstatement can be made by meeting the satisfactory progress guidelines or by the appeal process.



## STUDENT LIFE



## STUDENT LIFE

Mitchell Community College is interested in helping all students develop to their fullest potential. With this goal in mind, the college strives to offer a comprehensive program in academics as well as social and cultural activities to build well-rounded persons.

## STUDENT RESPONSIBILITY

Students at Mitchell Community College are expected to conduct themselves in accordance with Federal, State, and local statutes. Mitchell Community College will cooperate with the respective law enforcement agencies in their enforcement. The CODE OF STUDENT CONDUCT AND STUDENT APPEALS procedure are detailed in the Student Handbook, which is distributed to each student enrolled in a curriculum program or course.

## STUDENT RECORDS AND PRIVACY RIGHTS

Mitchell Community College must maintain accurate and confidential student records and must recognize the rights of students to have access to their educational and personal records in accordance with existing College policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) and its revisions effective 1976.
"Educational Records" include files, documents, and other materials which contain information directly related to students. The term "educational records" does not include the following:
a. Records and documents of institutional personnel which are kept apart from educational records.
b. Records on the student which are made or maintained by a physician, psychiatrist, psychologist, counselor, or other recognized professionals or paraprofessionals acting in their official capacity.
c. Financial records on the parents of the student.
d. Records of instructional, supervisory and administrative personnel kept in their sole possession provided they are "not accessible or revealed to any other person except a substitute."

## RELEASE OF STUDENT EDUCATIONAL RECORDS

The following "Directory Information" may be made available to the public by the College without the student's written permission unless the student notifies the Office of Student Services in writing by the third week of the quarter that such information concerning themselves is not to be made available.
a. Student's name, address, telephone number, and social security number.
b. Major field of study or program, club and sport activities.
c. Dates of attendance, degrees, diplomas, or awards received and the most recent previous educational institution.
d. Place of birth, weight, and height.

Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to look at the official student file for a particular student.

Requests for confidential information shall not be honored without proper written consent for the release of such records by the student. The written consent must specify the records or the specific data to be released and to whom it is to be released, and each request must be handled separately. Exceptions to this policy are:
a. Requests for confidential information will be honored without prior consent of the student in connection with an emergency.
b. Official requests in connection with the audit and evaluation of federal or state supported programs or in connection with enforcement of federal or legal requirements which relate to such programs.
c. An official order of a court of competent jurisdiction.
d. Subpoena. (Students will be notified immediately by registered mail that their records are being subpoenaed.)
e. Persons or organizations providing financial aid to the student or determining financial aid decisions.

## Control of Student Records

Transcripts and other information are released only with the written permission of the student. The only exception is that transcripts may be released by telephone request to another educational institution in which case the student receives written notification of such release.

Students have the right to inspect their own records. Upon inspection students are entitled to an explanation of any information contained in their record. Students have the right to copies of academic records of credits earned at Mitchell. Copies of transcripts and/or other information from institutions other than Mitchell must be requested from the originating institution.

An official student file shall not be sent outside the Counseling Office, Records Office, Financial Aid Office, Veterans Affairs Office, Adviser's Office, or other custodial offices except in circumstances specifically authorized by the Dean of Student Services. The authorization for such special circumstances must be in writing. College officials responsible for the proper maintenance of education records include the Registrar, Admissions, and the Dean of Student Services.

A student who believes that information contained in records is inaccurate or misleading may request that the record(s) be amended. The request must be in writing and directed to the Dean of Student Services.

## DISABLED STUDENTS

Special parking facilities are available to disabled students. Parking placards must be obtained from the North Carolina Department of Motor Vehicles.

All permanent instructional facilities are accessible to disabled students except the Art facilities. Special arrangements will be made for disabled students who desire to use these facilities.

The Affirmative Action Officer is the person to contact for additional information concerning facilities for the disabled. The office is in the Main Building.

## EQUAL OPPORTUNITY POLICY STATEMENT

Mitchell Community College shall continue to offer equal employment opportunities to its existing personnel and applicants for employment without regard to race, color, religion, sex, age, handicap, or national origin. The "Open Door" philosophy extends equal educational programs and instructional opportunities to the college's service area. Ongoing compliance with Federal and State Regulations shall be enforced with specific regard to:
(A) Age discrimination in Employment Act of 1967 (as amended)
(B) Civil Rights Act of 1968
(C) Civil Rights Acts of 1866 and 1871
(D) Title VI of Civil Rights Act of 1964
(E) Executive order No. 11246 (as amended)
(F) The Rehabilitation Act of 1973 (as amended: Sec. 503; Sec. 504)
(G) Title IX of Educational amendments of 1972
(H) Equal Pay Act of 1963 (as amended)
(I) Title VII of Civil Rights Act of 1964 (as amended)

Persons with concerns related to areas falling under Federal and State regulations should contact the Affirmative Action Officer, whose office is located in the Main Building, telephone number (704) 878-3358.

## FACULTY ADVISORS

Upon completion of the admissions process each student is assigned an advisor. In technical and vocational areas these advisors are the primary instructors. In the college transfer area advisors are randomly assigned. Recognizing
that advisee-advisor relationships are as important as classroom instruction, advisors are available daily for assistance in needed areas. Specialized assistance is available through the Dean of Student Services.

## JOB PLACEMENT SERVICE

Mitchell Community College offers job placement service to students for part-time or full-time employment. The services of the Job Placement Office are available to current and graduating students, alumni, and prospective employers.

Graduating students are given counsel and assistance in preparing for job placement. Information pertaining to job opportunities is provided, along with assistance in gathering and presenting information to prospective employers. Further information may be obtained from the Job Placement Office.

## COUNSELING

Counseling and guidance services are provided by the college to aid students in determining their vocational and educational programs as well as assisting in resolving problems of a personal nature which might affect progress toward educational objectives. Professionally trained counselors are available.

## INTRAMURALS

A number of intramural competitions are organized for students by the Student Government Association and Student Services personnel.

## STUDENT ORGANIZATIONS

Mitchell Community College encourages students to be active in affairs of the institution. Through organizations, the student will find opportunities for entertainment, making new friends, leadership, and service to the college community.

All student organizations must be approved by the administration and Student Government Association. Each organization must have a copy of its constitution or purpose which includes a statement of open membership without regard to race, color, religion, handicap, sex, creed, or national origin. The names of a faculty advisor must be on file with the Student Government Association.

## STUDENT GOVERNMENT ASSOCIATION

The purpose of the Student Government Association is to help each student develop a personal sense of pride for and responsibility to the college, and to accept his democratic responsibilities as an American citizen.

The Student Government Association acts as an intermediary between the student body and the administration of the college, serving as a student forum representing the student to the college faculty and administration. It also cooperates with the administration in the coordination and the supervision of student activities. All students who pay activity fees are members of the Student Government Association. The Constitution and the Student Code of Conduct are found in the Mitchell Community College Student Handbook.

## THE LEARNING RESOURCES CENTER

The Learning Resources Center provides resources and services which support the instructional program at Mitchell. Services include reference assistance, book selection, and interlibrary loans. Audiovisual services include equipment for viewing and listening and production facilities. A coin-operated copier, microfilm reader/printer, and microfiche reader/printer are available for students. There is also a reading room and typing room with electric typewriters on the second floor for student use. The "History Room" holds a combination of the history of Mitchell College, Iredell County, and North Carolina.

## ACADEMIC POLICIES



## ACADEMIC POLICIES

## QUARTER SYSTEM

Mitchell operates on a four quarter system. The fall, winter, spring and summer quarters are each eleven weeks in length. The college is in session five days a week.

Quarter hours credit is awarded as follows: one quarter hour of credit for each hour per week of class lecture, one quarter hour of credit for each two hours per week of laboratory work, and one quarter hour of credit for each three hours per week of shop or clinical practice.

## REGISTRATION

All students are required to register at the beginning of each quarter of attendance. Students may not attend courses for which they are not officially enrolled. Formal completed enrollment is based on the official class rosters generated by the Registrar's Office as soon as possible after registration.

## CHANGE OF SCHEDULE

Changes in a class schedule after registration must be made in the office of the Registrar. The last day that courses may be added each quarter is stated on the college calendar. Any student wishing to drop a course must complete the drop form which is processed through the office of the Registrar and the Business Office.

## STUDENT COURSE LOAD

Students must register for 12 credit hours per quarter in college transfer and technical programs and 22 contact hours in vocational programs to be considered full-time, and the course load must not drop below these hours per quarter. These requirements are minimal to receive full VA benefits.

The normal course load varies with each program. For college transfer the course load is 16 credit hours per quarter while the normal course load for the technical programs is 18 credit hours per quarter. Vocational programs normally consist of at least 22 contact hours per week.

Students may not register for more than 21 credit hours without approval of the Dean of Student Services, unless required by their occupational curriculum. Approval of an overload will be determined on the basis of past achievement of the students.

It is recommended that students who are employed either on a part-time or full-time basis consult with their faculty advisors to determine the course load appropriate for their particular case.

## CLASSIFICATION

Students are classified as freshmen from initial enrollment until 45 quarter hours credit have been earned, at which time they are classified as sophomores. For student activities purposes, students must have been enrolled for a minimum of three quarters before they are classified as sophomores.

## ATTENDANCE POLICY

Regular class attendance is considered to be a vital ingredient in scholastic achievement and is one of the many responsibilities of the college student. As a result, the student is expected to be in attendance for each class meeting unless prohibited by uncontrollable events. No absence exempts the student from completing the work assigned during the absence. The student will assume the responsibility of determining what work was missed. Students anticipating an absence should contact their instructors in advance to make necessary arrangements.

The instructor is responsible for informing students in writing of the class attendance policy at the beginning of each quarter.

The instructor will inform the Registrar's Office when a student fails to comply with the attendance policy of the class or fails to attend for two consecutive weeks. The instructor will assign a grade of " $F$ " at the end of the quarter to any student who has not complied with the class attendance policy or has failed to attend for two consecutive weeks. Students will receive a "W" instead of an " $F$ " if they complete the proper withdrawal form in the Registrar's Office.

## WITHDRAWAL POLICY

In order to officially drop a single course, a student must submit a completed drop form, signed by the instructor and the advisor, to the Registrar's Office.

In order to officially withdraw from school, a student must submit a completed withdrawal form to the Registrar's Office.

A student may drop a course or withdraw from all courses up to and including the published date to drop or withdraw with a grade of "W". A student who fails to drop or withdraw officially will receive a grade of " F " for any course not completed satisfactorily.

After the published drop or withdrawal date, withdrawals from school will be permitted only for medical or emergency situations; however, no withdrawals will be permitted after exams begin. In order to declare a medical or emergency situation, the student must submit a written request to the Dean of Student Services for approval. Additional documents may be required.

NOTE: Failure to attend class or to notify the instructor does not constitute an official drop or withdrawal.

## GRADING SYSTEM AND GRADE POINT AVERAGE

The 4.00 grade point system is used to calculate student grade point averages. The letter grades used are:

A Excellent - 4 grade points per quarter hour
B Good - 3 grade points per quarter hour
C Average - 2 grade points per quarter hour
D Passing - 1 grade point per quarter hour
F Failed - No grade points per quarter hour
*P Pass
*NP Non-Pass
I Incomplete - Work must be completed satisfactorily within the next quarter, except that, where circumstances warrant, the instructor may approve an extension of time up to one year from the closing date of the course. If the " I " has not been removed by the designated date, a grade of " $F$ " will be recorded.

W Withdrawal - Denotes official withdrawal from school.
AU Audit - No grade points.
NS No Show - Recorded for students who register for classes, but do not attend at least one class session prior to the $20 \%$ point.

The grade point average is calculated by dividing the total number of quality points earned by the total number of quarter hours attempted, including both courses passed and failed, unless the courses have been repeated. When a course is repeated, the last grade earned will be included in calculating the GPA. All courses attempted will be shown on the official transcript.

A "C" average is required for graduation. On the 4.00 grade point system, a "C" average is a 2.00 grade point average.
*Given for developmental courses only. Institutional credit only is awarded. Hours are not counted toward graduation and are not figured in the students grade point average.

## GRADE REPORTS

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

## DEAN'S LIST

The Dean's List is published at the end of each quarter. It is published as follows:

Full time - Any student enrolled for at least twelve quarter hours and earns a grade point average of 3.5 or better with no grade below " C " will be on the Full Time Dean's List for that quarter.

Part Time - Any student enrolled for at least six quarter hours, but less than twelve, and earns a grade point average of 3.5 or better with no grade below "C" will be on the Part Time Dean's List for that quarter.

## GRADUATION HONORS

High Honors - A student who has a cumulative grade point average of 3.75 or greater with no grade below a "C" will receive High Honors at graduation.

Honors - A student who has a cumulative grade point average of 3.50 to 3.74 with no grade below a " C " will receive Honors at graduation.

At least fifty percent of the curriculum requirements must be completed at Mitchell Community College to be eligible for honors at graduation. Certificate programs do not qualify for honors.

## GRADUATION MARSHALS

The graduation marshals are those freshmen enrolled in a program of study who have the highest grade point averages, have earned a minimum of 30 hours with at least two quarters of 12 hours each and have no transfer credit. They will assist in graduation exercises and other college events.

## SATISFACTORY ACADEMIC PROGRESS

The following scale will be used as a basis for determining a student's status for certification purposes to the Department of Veteran Affairs, Social Security, Vocational Rehabilitation, student loans and scholarship agencies, conditional status, and other private or public agencies requiring such information.

Students receiving financial aid must maintain satisfactory academic progress to continue receiving aid. The total hours attempted are utilized in the computation of the overall accumulative grade point average. This includes both courses passed and failed, unless the course has been repeated. When the course is repeated, the last grade earned will be included in the calculation of the grade point average. For further information, see the Financial Aid Section of the catalog.

Veteran students must meet the requirements for academic progress as set forth below. If veterans do not meet this requirement, they will be placed on academic probation. (See pages 24-25 for complete Standards of Progress)

Degree Programs
Hours GPA
0-15 $\quad 1.00$
16-30 1.25
31-45 1.50
46-60 $\quad 1.75$
$61-75 \quad 1.90$
76- $\quad 2.00$

Diploma Programs
Hours GPA
0-20 $\quad 1.25$ 21-40 1.50
41-60 $\quad 1.75$
$61-$

Certificate Programs
Hours GPA
0-7 $\quad 1.50$
8-13 1.75
$14-$
2.00

Students enrolled in the Nursing Program please see Nursing Policy and Procedure Manual, PROGRESSION POLICY.

## COURSE REQUIREMENTS

Mitchell Community College has established prerequisite requirements for selected courses. The prerequisite requirements are required of all students, including special students, who enroll in the courses. The purpose of the prerequisite preparation is to insure that students have adequate academic/experiential preparation to successfully complete the course.

## STUDENT RETENTION

Mitchell Community College makes every effort to assist enrolled students to achieve their academic goals. Academic evaluation and appropriate course placement is the basis of the retention efforts. Additional retention efforts include a comprehensive program of student financial aid, an academic advising system that assigns any program student to an advisor, the availability of professional counselors, a full open lab that provides both tutoring and individualized self-instructional modules and a student success course emphasizing study skills. This course is required of all developmental students.

These efforts have resulted in a quarter-to-quarter student retention rate that is among the highest in the North Carolina Community College System.

## CREDIT BY EXAMINATION

Mitchell Community College does permit credit by examination upon approval of the appropriate Assistant Dean. For details, contact the Student Services Office.

## ADVANCED PLACEMENT FOR HIGH SCHOOL COURSES

Students entering Mitchell Community College from Iredell/Statesville Schools, or Mooresville Graded Schools may be awarded advanced placement credit as provided in an agreement between these school systems and Mitchell Community College.

Advanced placement credit based on high school achievement may be allowed to students enrolling in specified programs. Details concerning specific requirements are available from counselors at the high schools and at Mitchell Community College.

Students enrolled in the Nursing Programs, please see the Nursing Policy and Procedure Manual.

## COLLEGE PREPARATORY PROGRAM

The goal of the College Preparatory Program is to meet the challenge of the college's "open door" admissions policy, which brings students of varying educational needs and abilities to the campus, and to fulfill the college's purpose "to be of optimum educational and cultural service to the people within its geographical area." The college is committed, through the College Preparatory Program, to providing ample opportunities for all students to meet their educational needs. The program offers to students course work, Mind Lab opportunities, and counseling designed to both remediate specific academic weaknesses and to develop other skills necessary to succeed in college. Upon completion of the developmental work prescribed as a result of placement testing, students will be better prepared for the demands of their chosen curriculum.

## THE CAREER CENTER

The following services/activities are provided by Mitchell Community College's Career Center:

## Job Openings:

An up-to-date list of full and part-time job vacancies is maintained.

## Career Assessment:

Assistance is provided in helping individuals identify jobs/careers that match their interests, skills, abilities and personalities.

## Job Readiness Training:

Students are taught how to develop a job search plan, complete resumes and conduct successful job interviews.

## Career Library:

The following information is available: job descriptions, salaries, education/ training requirements, and job outlook.

## Computerized Career Decision-Making Information:

With the aid of the computer, individuals are guided through a series of activities that facilitate career decision-making.

## College Catalogs

Catalogs from all North Carolina two-year and four-year colleges and universities are housed in the Career Center.

For assistance/information, call (704) 878-3242.

## THE MITCHELL INSTRUCTIONAL AND DEVELOPMENTAL LABORATORY

The MIND Lab provides assistance in course work to curriculum students. Writing help and tutoring assistance in all course work are the primary services offered. Computers are available to students for composing and printing papers as well as to study through use of computer tutorial models.

The MIND Lab hours are posted each quarter on the door of the Lab.

## CHARLOTTE AREA EDUCATIONAL CONSORTIUM

Mitchell Community College is a member of the Charlotte Area Educational Concortium (CAEC) which exists for the purpose of fostering attainment of the highest level of collegiate education for students in the Charlotte metropolitan area. CAEC has as a portion of its purpose:

- to afford students access to broader educational experiences both curricular and extracurricular
- to encourage multi-instructional use of faculty, equipment, and facilities where feasible.
- to act as a forum for sharing information and important events.

Of special interest to Mitchell Community College students is the Inter-institutional Student Exchange program of this consortium. This program allows, under specific guidelines, for students of member institutions to take courses at other member institutions when such courses are not available at the student's home institution. This means full-time Mitchell students can enroll in approved courses for no additional tuition charges at any of the participating institutions. The Registrar at Mitchell will provide specific guidelines and necessary forms for this program.

Participating Institutions are:

Barber-Scotia College
Belmont Abbey College
Catawba College
Central Piedmont Community
College
Davidson College
Gaston College
Johnson C. Smith University
Lenoir-Rhyne College
Livingston College Mitchell Community College

Pfeiffer College
Queens College
Rowan-Cabarrus Community College
Stanly Community College
University of North Carolina at Charlotte
University of South Carolina at Lancaster
Wingate College
Winthrop University
York Technical College

## AUDITING CLASSES

Classes may be audited with permission of the instructor if space is available; however, no class may be audited more than once. The audit may occur either before or after taking the course for credit. Priority will be given to regular credit students. Any class with more than fifty percent audits may not be taught. No one will be allowed to audit an independent study or independent studio course.

Participation in class discussion and examinations is the option of the instructor. No credit by examination can be allowed for courses that have been audited. A grade of "AU" will be recorded with no hours credit or quality points. Registration or changes in registration for audits must be completed during the regular registration or change periods. Regular fees will be charged.

Any exception must be approved by the Dean of Student Services.

## REPEATING COURSE WORK

Any course in which an " $F$ " or " $D$ " is received may be repeated until a grade of "C" or better is earned. The last grade earned will be used in calculating the GPA. All courses attempted will be shown on the official transcript.

No course may be counted for credit more than once except for physical education activity courses, which may count twice, and certain vocational courses in which state certification is mandated.

In those cases where a course in which the student received an " $F$ " is not offered during the remainder of that student's residence, an equivalent course may be substituted upon recommendation of the Assistant Dean or program director for purposes of meeting program requirements.

Any exception must be approved by the Dean of Student Services.

## TRANSCRIPTS

An official transcript of work at Mitchell Community College will be sent to the appropriate institution upon written request by the student. No transcript will be released until all financial obligations to the College have been met.

## GRADUATION REQUIREMENTS

The following requirements apply to programs; however, some divisions may have additional requirements applicable only to that division.

1. Students in the programs awarding diplomas are required to reach a reading proficiency level. Students in programs awarding the Associate in Arts, Associate in Fine Arts, Associate in Science, or Associate in Applied Science degrees are required to make satisfactory scores on the reading placement test, or successfully complete reading requirements.
2. Students may graduate under the catalog upon which they enter or any subsequent catalog in effect while they remain in continuous enrollment. Upon changing from one program to another within the college, students must graduate under the catalog in effect at the time they change or any subsequent catalog while they remain in continuous enrollment. Continuous enrollment excludes summer quarter.
3. Along with the appropriate number of hours earned and the completion of all required courses for their specific program, students must have a 2.0 grade point average in order to graduate and receive a degree, diploma, or certificate. No course substitutions may be made and no graduation requirements may be waived without recommendation from the program director, Assistant Dean, and administrative approval.
4. Application for graduation and payment of graduation fees must be made during the registration period for the student's last quarter.
5. Presence at graduation is a requirement. When attendance is impossible, the student may petition, in writing, the Dean of Student Services for permission to graduate in absentia.
6. A minimum of thirty quarter hours credit in the student's program of study must be earned at Mitchell Community College in order to be eligible for graduation, except in the nursing program.
7. In the Associate Degree Nursing program a minimum of 43 credit hours in nursing courses must be earned at Mitchell Community College.
8. A maximum of eleven quarter hours credit may be earned at another institution and accepted for graduation purposes after a student transfers from Mitchell Community College.
9. In addition to the above school requirements, an exit interview with the nursing faculty is required of all nursing students. This is a compilation of the rating of the student by all clinical instructors who have supervised that student. The exit interview will be included as part of all future employment references.
10. To be eligible for graduation, the student must also fulfill all financial obligations to the College.

## EDUCATIONAL PROGRAMS



## EDUCATIONAL PROGRAMS

Mitchell Community College offers a wide range of planned educational programs. The programs may range in length from four quarters to seven quarters. Formal recognition for successful completion of a program will vary depending on the nature of the curriculum. Mitchell Community College recognizes successful academic completion as:

College Transfer:
Associate in Arts Degree - minimum 96 quarter hours credit
Associate in Fine Arts Degree - minimum 96 quarter hours credit with 40 hours in Fine Arts
Associate in Science Degree - minimum 96 quarter hours credit College Transfer Programs:

Pre-Art C003
Pre-Business Administration C004
Pre-Dental C005
Pre-Engineering C007
Pre-Law C010
Pre-Liberal Arts C011
Pre-Math C012
Pre-Medical C013
Pre-Ministerial C014
Pre-Pharmacy C 017
Pre-Science C018
Pre-Social Work C019
Pre-Teaching
Elementary 020
Secondary C028
Pre-BS Nursing C023
Pre-Health and Physical Education C031
Pre-Psychology C044
Special Credit C301

## Technical:

Associate in Applied Science Degree - minimum 108 quarter hours credit; Certificate- minimum 16 quarter hours credit.
Technical Programs:
Accounting ..... T016
Administrative Office Technology ..... T030
Associate Degree Nursing ..... T059
Basic Law Enforcement Training ..... T189
Business Administration ..... T018
Business Computer Programming ..... T022
Criminal Justice ..... T129
Drafting and Design Engineering Technology ..... T043
Electronics Engineering Technology ..... T045
General Office ..... T033
General Technology Curriculum Core ..... T201
Human Services Technology ..... Tl36
Industrial Maintenance Technology ..... Tl19
Industrial Management ..... T049
Manufacturing Engineering Technology ..... T050
Special Credit ..... T301
*Other Programs
Vocational:
Diploma - minimum 64 quarter hours credit. Certificate - minimum 16 quarter hours credit. Vocational Programs:
Air Conditioning Heating \& Refrigeration ..... V024
Automotive Mechanics ..... V003
Cosmetology ..... V009
Electrical Installation \& Maintenance ..... V018
General Vocational Curriculum Core ..... V201
Industrial Electronics ..... V045
Medical Assisting ..... V031
Phlebotomy ..... V168
Welding ..... V050
Special Credit ..... V301
*See page 100 for a listing of Allied Health Programs that are offered in partnership with other community colleges. Generally, the majority of the first year courses can be taken at Mitchell Community College.

The remainder of the courses must be taken at or through appropriate cooperating institution.

## READING REQUIREMENTS FOR ALL PROGRAMS

The following requirements must be successfully met by students in all programs:

Associate in Arts, Associate in Fine Arts, Associate in Science, Associate in Applied Science and Diploma Programs:
Must make a satisfactory score on the reading test, or take Reading 092 and 094 , or take 094.

## COLLEGE TRANSFER PROGRAMS

The College Transfer programs are designed to provide the graduate with the liberal arts foundation needed to effectively meet the challenges of the modern world and to provide the general education core needed by most baccalaureate degree programs. Mitchell Community College has structured its program around the study of a number of academic disciplines in order to meet the above students needs. Upon completion of the Associate in Arts or the Associate in Science degree, graduates will

- be able to communicate satisfactorily in written and oral English.
- be able to analyze mathematical information to understand relationships among variables and to arrive at logical conclusions for specific problems.
- be able to recognize, understand, and use the fundamentals of one or more disciplines or scientific knowledge.
- understand the foundation of their own culture through the knowledge of basic themes and events in the history of humanity.
- understand the importance of a life-long physical activity program as it enhances the quality of life.
- be familiar with the aims and methods of intellectual development and human creativity.
- develop critical and constructive thinking skills needed for problem solving and value clarification.
- be able to transfer to a senior institution.
- be familiar with the operation of the personal computer.
- be aware of the many areas of diversity in our world and how to maximize use of these differences.

In addition, the Associate in Fine Arts graduates will

- be able to use the knowledge and skills acquired in their major area of study as foundation for employment in entry-level positions such as museum or gallery work, private art lessons, art gallery or commission works.


## ASSOCIATE IN ARTS DEGREE

Communications 10 credit hours
ENG 155, 156 required.
Physical Education 3 credit hours
Humanities and Fine Arts 14 credit hoursCourses must be selected from art, modern language, literature, music,religion, and oral communication but must include at least 5 credit hoursin literature.
Mathematics 5 credit hours
MAT 161 or higher level course required.
Science 12 credit hours
Introductory science sequence required.
Social Science 15 credit hours
Western Civilization or American History sequence required.
Electives 37 credit hoursStudents should select electives which correspond with their major and theinstitution to which they wish to transfer.
ASSOCIATE IN SCIENCE DEGREE
Communications 10 credit hours
ENG 155, 156 required.
Physical Education 3 credit hours
Humanities and Fine Arts 13 credit hours
Courses must be selected from art, modern language, literature, music,religion and oral communication but must include at least 5 hours creditin literature.
Mathematics 20 credit hoursScience24 credit hoursTwo complete three-course sequences required.
Social Science 10 credit hours
Western Civilization or American History sequence required.16 credit hoursStudents should select electives which correspond with their major and theinstitution to which they wish to transfer. Courses in Computer Programmingare recommended.

## ASSOCIATE IN FINE ARTS DEGREE

Communications 10 credit hours
ENG 155, 156 required.
Humanities and Fine Arts 12 credit hours
Courses must be selected from literature, modern language, religion, music, and oral communication but must include 5 credit hours in literature.
Mathematics 5 credit hours
MAT 161 or higher level course required.
Science 12 credit hours
Introductory science sequence required.
Social Science 10 credit hours
Western Civilization or American History sequence required.Physical Education3 credit hours
Electives 4 credit hours
Liberal arts area and/or areas related to major.
Professional Program Courses 40 credit hours

## PRE-ART (C-003) <br> (Suggested Curriculum)

## Associate in Fine Arts Degree

Course TitleFIRST QUARTER
ENG 155 Composition I ..... 5
HIS 151 History of Western Civ. I orHIS 251 U.S. History I5
ART 150 Basic Design ..... 3
Humanities and Fine Arts ..... 3
SECOND QUARTER
ENG 156 Composition II. ..... 5
HIS 152 History of Civilization II or
HIS 252 U.S. History II ..... 5
ART 151 Drawing I ..... 3
Humanities and Fine Arts ..... 3
THIRD QUARTER
ENG Literature ..... 5
MAT 161 College Algebra ..... 5
ART 152 Drawing II or Art Elective ..... 3
ART Art Elective ..... 3
FOURTH QUARTER
BIO 151 General Biology I or
CHM 161 General Chemistry I or
PHY 271 General Physics I ..... 4
ART Major Sequence I ..... 3
ART Minor Sequence I ..... 3
Elective ..... 5
PED Physical Education ..... 1
FIFTH QUARTER
BIO 152 General Biology II or
CHM 162 General Chemistry II or
PHY 272 General Physics II ..... 4
ART Art History ..... 5
ART Major Sequence II ..... 3
ART Minor Sequence II ..... 3
PED Physical Education ..... 1
SIXTH QUARTER
BIO 153 General Biology III or
CHM 162 General Chemistry III or
PHY 272 General Physics III ..... 4
ART Art History ..... 5
ART Major Sequence III ..... 3
ART Art Elective ..... 3
PED Physical Education ..... 1
Total Credit Hours ..... 96

# PRE-BUSINESS ADMINISTRATION (C-004) (Suggested Curriculum) <br> <br> Associate in Arts Degree 

 <br> <br> Associate in Arts Degree}
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
HIS 151 History of Western Civilization I or HIS 251 U.S. History I ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I or
PHY 271 General Physics I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II or
PHY 272 General Physics II ..... 4
PED Physical Education. ..... 1
THIRD QUARTER
BIO 153 General Biology III or
CHM 163 General Chemistry III or
PHY 273 General Physics III ..... 4
EDP 151 Computer Concepts ..... 4
PED Physical Education ..... 1
Humanities and Fine Arts ..... 5
Social Science ..... 5
FOURTH QUARTER
BUS 161 Accounting Principles I ..... 4
ECO 251 Macroeconomics ..... 5
MAT 161 College Algebra ..... 5
ENG Literature ..... 5
FIFTH QUARTER
BUS 162 Accounting Principles II ..... 4
ECO 252 Microeconomics ..... 5
MAT 191 Concepts \& Techniques of Calculus ..... 5
SIXTH QUARTER
BUS 163 Accounting Principles III ..... 4
MAT 171 Introductory Statistics ..... 5
Humanities And Fine Arts ..... 5
Total Credit Hours ..... 96
PRE-DENTAL (C005) (Suggested Curriculum)
Associate in Science Degree
Course Title
FIRST QUARTER
ENG 155 Composition I ..... 5
BIO 151 General Biology I. ..... 4
CHM 161 General Chemistry I ..... 4
MAT 161 College Algebra ..... 5
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II ..... 4
CHM 162 General Chemistry II ..... 4
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
THIRD QUARTER
BIO 153 General Biology III ..... 4
CHM 163 General Chemistry III ..... 4
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II. ..... 5
Humanities and Fine Arts ..... 5
FOURTH QUARTER
ENG Literature ..... 5
BIO 251 Anatomy and Physiology I ..... 4
MAT 251 Calculus I ..... 5
PED Physical Education ..... I
FIFTH QUARTER
BIO 252 Anatomy and Physiology II ..... 4
MAT 252 Calculus II. ..... 5
PED Physical Education ..... 1
Organic Chemistry I
(Through Consortium) ..... 4
SIXTH QUARTER
BIO 253 Anatomy and Physiology III ..... 4
MAT 253 Calculus III ..... 5
PED Physical Education ..... 1
Humanities and Fine Arts ..... 3
Total Credit Hours ..... 96
Organic Chemistry II (ThroughConsortium) is also Recommended

## PRE-ENGINEERING (C007) (Suggested Curriculum)

## Associate in Science Degree

Course Title Qtr. Hrs. CreditFIRST QUARTER
ENG 155 Composition I ..... 5
CHM 161 General Chemistry I ..... 4
MAT 161 College Algebra ..... 5
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II. ..... 5
CHM 162 General Chemistry II. ..... 4
MAT 162 Trigonometry ..... 5
PED Physical Education. ..... 1
THIRD QUARTER
CHM 163 General Chemistry III ..... 4
MAT 171 Introductory Statistics ..... 5
PED Physical Education ..... I
Humanities and Fine Arts ..... 5
FOURTH QUARTER
ENG Literature ..... 5
MAT 251 Calculus I ..... 5
PHY 281 Analytical Physics I ..... 4
EGR 151 Engineering Drawing I ..... 4
FIFTH QUARTER
MAT 252 Calculus II ..... 5
PHY 282 Analytical Physics II ..... 4
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
Elective ..... 2
SIXTH QUARTER
MAT 253 Calculus III ..... 5
PHY 283 Analytical Physics III ..... 4
HIS 152 History of Western Civilization II orHIS 251 U.S. History II.5
Humanities and Fine Arts ..... 3
Total Credit Hours ..... 96
MAT 254 Calculus IV, ECO 251 , and a Computer
Science course are highly recommended

# PRE-LAW (C010) (Suggested Curriculum) 

## Associate in Arts Degree

Course TitleFIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I ..... 4
PED Physical Education ..... I
SECOND QUARTER
ENG 156 Composition II ..... 5
HIS 151 Western Civilization I ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II ..... 4
PED Physical Education ..... 1
THIRD QUARTER
HIS 152 Western Civilization II ..... 5
BIO 153 General Biology III or
CHM 163 General Chemistry III ..... 4
PED Physical Education. ..... l
POL 251 American National Government ..... 5
FOURTH QUARTER
ENG Literature ..... 5
HIS 251 U.S. History ..... 5
POL 272 Comparative Government ..... 3
Elective ..... 4
FIFTH QUARTER
HIS 252 U.S. History II ..... 5
POL 261 State \& Local Government ..... 5
Humanities and Fine Arts ..... 4
ENG 250 Oral Communication ..... 3
SIXTH QUARTER
POL 271 International Relations ..... 3
Humanities \& Fine Arts ..... 5
Electives ..... 9
Total Credit Hours ..... 96

# PRE-LIBERAL ARTS (C-011) (Suggested Curriculum) 

## Associate in Arts Degree

Course Title

Qtr. Hrs. Credit

FIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I or
PHY 271 General Physics I ..... 4
PED Physical Education ..... I
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II or
PHY 272 General Physics II ..... 4
HIS 151 History of Western Civilization I orHIS 251 U.S. History I5
PED Physical Education ..... l
Elective ..... 3
THIRD QUARTER$\begin{array}{lll}\text { BIO } & 153 & \text { General Biology III or } \\ \text { CHM } & 163 & \text { General Chemistry III or }\end{array}$
PHY 273 General Physics III. ..... 4
HIS 152 History of Western Civilization II or HIS 252 U.S. History II. ..... 5
PED Physical Education ..... 1
Elective ..... 6
FOURTH QUARTER
ENG Literature ..... 5
Electives ..... 10
FIFTH QUARTER
Humanities and Fine Arts ..... 5
Social Science Elective ..... 5
Elective ..... 6
SIXTH QUARTER
Humanities and Fine Arts ..... 4
Elective ..... 12
Total Credit Hours ..... 96

# PRE-MATH (C012) (Suggested Curriculum) 

## Associate in Science Degree

Course TitleFIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
MAT 162 Trigonometry ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II ..... 4
PED Physical Education ..... 1
THIRD QUARTER
MAT 171 Introductory Statistics ..... 5
BIO 153 General Biology III or
CHM 163 General Chemistry III ..... 4
PED Physical Education ..... 1
Humanities and Fine Arts ..... 5
FOURTH QUARTER
ENG Literature ..... 5
MAT 251 Calculus I ..... 5
PHY 281 Analytical Physics I ..... 4
Humanities and Fine Arts ..... 3
FIFTH QUARTER
MAT 252 Calculus II ..... 5
PHY 282 Analytical Physics II ..... 4
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
Elective ..... 3
SIXTH QUARTER
MAT 253 Calculus III ..... 5
PHY 283 Analytical Physics III ..... 4
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II. ..... 5
Elective ..... 3
Total Credit Hours ..... 96
MAT 254 Calculus IV is highly recommended

# PRE-MEDICAL (C013) <br> (Suggested Curriculum) <br> Associate in Science Degree 

Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
BIO 151 General Biology I. ..... 4
CHM 161 General Chemistry I ..... 4
MAT 161 College Algebra ..... 5
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II ..... 4
CHM 162 General Chemistry II ..... 4
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
THIRD QUARTER
BIO 153 General Biology III ..... 4
CHM 163 General Chemistry III ..... 4
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II. ..... 5
Humanities and Fine Arts ..... 5
FOURTH QUARTER
ENG Literature ..... 5
BIO 251 Anatomy and Physiology I ..... 4
MAT 251 Calculus I ..... 5
PED Physical Education ..... 1
FIFTH QUARTER
BIO 252 Anatomy and Physiology II ..... 4
MAT 252 Calculus II. ..... 5
PED Physical Education ..... 1
Organic Chemistry I
(Through Consortium) ..... 4
SIXTH QUARTER
BIO 253 Anatomy and Physiology III ..... 4
MAT 253 Calculus III ..... 5
PED Physical Education ..... 1
Humanities and Fine Arts ..... 3
Total Credit Hours ..... 96
Organic Chemistry II (ThroughConsortium) is also Recommended

# PRE-MINISTERIAL (C014) (Suggested Curriculum) 

## Associate in Arts Degree

Course TitleFIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I4
REL 150 Intro. to Old Testament I ..... 3
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II ..... 4
PSY 151 Intro. to Psychology ..... 5
REL 151 Intro. to Old Testament II ..... 3
THIRD QUARTER
BIO 153 General Biology III or
CHM 163 General Chemistry III ..... 4
SOC 151 Introduction to Sociology ..... 5
ENG 250 Oral Communication ..... 3
REL 152 Intro, to New Testament I ..... 3
FOURTH QUARTER
ENG Literature ..... 5
REL 153 Intro, to New Testament II ..... 3
PED Physical Education ..... 1
PSY 264 Abnormal Psychology ..... 5
SOC 271 Social Problems I ..... 3
FIFTH QUARTER
SOC 272 Social Problems II ..... 3
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
PED Physical Education. ..... 1
REL 154 The Religions of Man ..... 3
Elective ..... 2
SIXTH QUARTER
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II ..... 5
PED Physical Education ..... 1
SOC 261 Courtship, Marriage \& The Family ..... 5
PSY 262 Human Growth and Development ..... 5
Total Credit Hours ..... 96

# PRE-PHARMACY (C017) (Suggested Curriculum) <br> <br> Associate in Science Degree 

 <br> <br> Associate in Science Degree}
Course TitleQtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
BIO 151 General Biology ..... 4
CHM 161 General Chemistry I ..... 4
MAT 161 College Algebra ..... 5
SECOND QUARTER
ENG 156 Composition II ..... 5
BIO 152 General Biology II ..... 4
CHM 162 General Chemistry II ..... 4
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
THIRD QUARTER
BIO 153 General Biology III ..... 4
CHM 163 General Chemistry III ..... 4
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II ..... 5
Humanities and Fine Arts ..... 5
FOURTH QUARTER
ENG Literature ..... 5
BIO 251 Anatomy and Physiology I ..... 4
MAT 251 Calculus I ..... 5
PED Physical Education ..... 1
FIFTH QUARTER
BIO 252 Anatomy and Physiology II ..... 4
MAT 252 Calculus II. ..... 5
PED Physical Education ..... 1
Organic Chemistry I
(Through Consortium) ..... 4
SIXTH QUARTER
BIO 253 Anatomy and Physiology III ..... 4
MAT 253 Calculus III ..... 5
PED Physical Education ..... 1
Humanities and Fine Arts ..... 3
Total Credit Hours ..... 96Organic Chemistry II (ThroughConsortium) is also Recommended

## PRE-SCIENCE (C018) (Suggested Curriculum)

Associate in Science Degree


Students should select courses which correspond to their major and the institution to which they intend to transfer. Courses in Computer Programming are recommended.

# PRE-SOCIAL WORK (C019) (Suggested Curriculum) <br> <br> Associate in Arts Degree 

 <br> <br> Associate in Arts Degree}
Course TitleQtr. Hrs. CreditFIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II ..... 4
PSY 151 Intro. to Psychology ..... 5
PED Physical Education ..... 1
THIRD QUARTER
BIO 153 General Biology III or
CHM 163 General Chemistry III ..... 4
SOC 151 Introduction to Sociology ..... 5
PED Physical Education ..... 1
POL 251 American National Government ..... 5
FOURTH QUARTER
ENG Literature ..... 5
HIS $151 \quad$ History of Western Civilization I or
HIS 251 U.S. History I ..... 5
SPA 151 Elementary Spanish I ..... 5
ENG 250 Oral Communication ..... 3
FIFTH QUARTER
HIS 152 History of Western Civilization II or HIS 252 U.S. History II ..... 5
SPA 152 Elementary Spanish II ..... 5
SOC 271 Social Problems I ..... 3
Elective ..... 3
SIXTH QUARTER
SOC 272 Social Problems II ..... 3
PSY 262 Human Growth and Development ..... 5
ECO 251 Macroeconomics. ..... 5
Elective ..... 4
Total Credit Hours ..... 96
PRE-TEACHING Elementary (C020) (Suggested Curriculum)
Associate in Arts Degree
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
BIO 152 General Biology II .....  4
HIS 251 U.S. History ..... 5
PED Physical Education ..... 1
THIRD QUARTER
BIO 153 General Biology III ..... 4
HIS 252 U.S. History II ..... 5
PSY 151 Intro, to Psychology ..... 5
PED Physical Education ..... 1
FOURTH QUARTER
ENG Literature ..... 5
SPA 151 Elementary Spanish I ..... 5
ART 180 Art Appreciation ..... 5
ENG 250 Oral Communication ..... 3
FIFTH QUARTER
SPA 152 Elementary Spanish II ..... 5
MUS 250 Music Appreciation ..... 5
Elective ..... 3
GEO 261 Physical Geography (MCC or Consortium) ..... 5
SIXTH QUARTER
POL 251 American National Government ..... 5
GEO 262 World Regions and Economic
Geography ..... 5
HIS 161 North Carolina History. ..... 5
Total Credit Hours ..... 96
PRE-TEACHINGSecondary (C028)(Suggested Curriculum)
Associate in Arts Degree
Course TitleQtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II. ..... 5
BIO 152 General Biology II ..... 4
HIS 251 U.S. History I ..... 5
PED Physical Education ..... I
THIRD QUARTER
BIO 153 General Biology III ..... 4
HIS 252 U.S. History II. ..... 5
PSY 151 Intro. to Psychology ..... 5
PED Physical Education ..... 1
FOURTH QUARTER5
ENG Literature
5
SPA 151 Elementary Spanish I. ..... 5
ART 180 Art Appreciation ..... 5
ENG 250 Oral Communication. ..... 3
FIFTH QUARTER
SPA 152 Elementary Spanish II ..... 5
MUS 250 Music Appreciation ..... 5
Elective ..... 3
GEO 261 Physical Geography (MCC or Consortium) ..... 5
SIXTH QUARTER
POL 251 American National Government ..... 5GEO 262 World Regions and EconomicGeography5
HIS 161 North Carolina History ..... 5
Total Credit Hours ..... 96
PRE-B.S. NURSING (C023) (Suggested Curriculum)
Associate in Science Degree
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
HIS 151 History of Western Civilization I or HIS 251 U.S. History I ..... 5
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
HIS 152 History of Western Civilization I or
HIS 252 U.S. History II ..... 5
PSY 151 Intro, to Psychology ..... 5
PED Physical Education ..... I
THIRD QUARTER
BIO 151 General Biology I ..... 4
SOC 160 Introduction to Sociology ..... 5
MAT 171 Introductory Statistics ..... 5
PED Physical Education ..... 1
FOURTH QUARTER
ENG Literature ..... 5
CHM 161 General Chemistry ..... 4
BIO 251 Anatomy and Physiology I ..... 4
SPA 151 Elementary Spanish I. ..... 5
FIFTH QUARTER
CHM 162 General Chemistry II ..... 4
BIO 252 Anatomy and Physiology II ..... 4
SPA - 152 Elementary Spanish II ..... 5
Elective ..... 2
SIXTH QUARTER
CHM 163 General Chemistry III ..... 4
BIO 253 Anatomy and Physiology III ..... 4
PSY 262 Human Growth and Development ..... 5
Elective ..... 3
Total Credit Hours ..... 96
BIO 255 Microbiology is highly recommended
PRE-HEALTH ANDPHYSICAL EDUCATION (C031)(Suggested Curriculum)
Associate in Arts Degree
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 151 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I
HIS 251 U.S. History I ..... 5 ..... 5
BIO 152 General Biology II ..... 4
PED Physical Education ..... I
THIRD QUARTER
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II ..... 5
BIO 153 General Biology III ..... 4
HEA 251 First Aid \& Safety ..... 3
CHM 164 Physiological Chemistry ..... 4
PED Physical Education ..... 1
FOURTH QUARTER
ENG Literature ..... 5
HEA 252 Personal Health ..... 3
PSY 151 Into. to Psychology ..... 5
BIO 251 Anatomy \& Physiology I ..... 4
FIFTH QUARTER
HEA 253 Community Health ..... 3
PSY 262 Human Growth and Development ..... 5
BIO 252 Anatomy \& Physiology II ..... 4
Humanities and Fine Arts ..... 5
SIXTH QUARTER
BIO 253 Anatomy \& Physiology III ..... 4
Humanities and Fine Arts ..... 4
Elective ..... 7
Total Credit Hours ..... 96
PRE-PSYCHOLOGY (C044) (Suggested Curriculum)
Associate in Arts Degree
Course Title
FIRST QUARTER
ENG 155 Composition I ..... 5
MAT 161 College Algebra ..... 5
BIO 151 General Biology I or
CHM 161 General Chemistry I ..... 4
PED Physical Education ..... 1
SECOND QUARTER
ENG 156 Composition II ..... 5
MAT 171 Introductory Statistics ..... 5
BIO 152 General Biology II or
CHM 162 General Chemistry II ..... 4
PED Physical Education. ..... I
THIRD QUARTER
BIO 153 General Biology III or
CHM 163 General Chemistry III ..... 4
PSY 151 Intro. to Psychology ..... 5
SOC 151 Intro. to Sociology ..... 5
PED Physical Education ..... 1
FOURTH QUARTER
ENG Literature ..... 5
PSY 264 Abnormal Psychology ..... 5
HIS 151 History of Western Civilization I or
HIS 251 U.S. History I ..... 5
FIFTH QUARTER
PSY 265 Psychology of Personal Adjustment ..... 5
ENG 250 Oral Communication ..... 3
HIS 152 History of Western Civilization II or
HIS 252 U.S. History II ..... 5
Elective ..... 5
SIXTH QUARTER
PSY 262 Human Growth and Development ..... 5
Elective ..... 7
Humanities and Fine Arts ..... 6
Total Credit Hours ..... 96

## CERTIFICATION AND LICENSURE

Mitchell Community College prepares students to complete certification and licensure requirements in fields that require or provide such credentials. The following is a list of programs and requirements. As independent certification boards frequently make changes in requirements or recommendations, students should make independent inquiries of the accrediting agency as a part of their individual certification process.

## Accounting:

Certified Public Accountant examination by the North Carolina State Board of Accounting. The Board also requires the individual to have no felony conviction and meet the education requirement of the agency.

## Administrative Office Tecbnology:

General Office:
Certified Professional Secretary by the Professional Secretaries International. Full certification also requires three years work experience as a secretary.

## Associate Degree Nursing:

National Council Licensure Examination by the North Carolina Board of Nursing. The North Carolina Board of Nursing requires licensure denial if a student: (1) has given false information or has withheld material information from the Board in procuring or attempting to procure a license to practice nursing; (2) has been convicted of or pleaded guilty or nolo contendere to any crime which indicates that the nurse is unfit or incompetent to practice nursing or that the nurse has deceived or defrauded the public; (3) has a mental or physical disability or uses any drug to a degree that interferes with his or her fitness to practice nursing; (4) engages in conduct that endangers the public health; (5) is unfit or incompetent to practice nursing by reason of deliberate or negligent acts or missions regardless of whether actual injury to the patient is established; (6) engages in conduct that deceives, defrauds, or harms the public in the course of professional activities or services; (7) has violated any provision of this article; or (8) has willfully violated any rules enacted by the Board.

## Basic Law Enforcement Training:

Basic Training Law Enforcement Officers certification by the North Carolina Criminal Justice Education and Training Standards Commission.

## Cosmetology:

State Board of Cosmetology Exam by the North Carolina State Board of Cosmetic Art. The State Board of Cosmetic Arts also requires that applicant be free of a felony conviction.

## Medical Assisting:

Medical Assisting Examination by the Certifying Board of the American Association of Medical Assistants. Students must also present one year's work experience as a medical assistant, meet requirements relating to Hepatitis B vaccine, have required immunizations, and may face restrictions if they have a record of a felony conviction.

## Nursing Assistant:

North Carolina Nurse Aide Registry by the North Carolina Board of Nursing. Students must meet requirements relating to Hepatitis $B$, have required immunizations, and may face restrictions if they have a record of a felony conviction.

## Pblebotomy:

ASPT National Certification by the American Society of Phlebotomy Technicians, Inc., a unit of the American Society of Clinical Pathologists; (ASCP) Board of Registry.

## SPECIAL CREDIT (C-301, T-301, V-301)

These programs are designed for those students who have no desire to work toward a degree, diploma, or certificate but want to take courses. As soon as a student decides to work toward a degree, diploma, or certificate he/she should notify the college so that he/she can be properly advised of requirements, and what he/she must do to meet those requirements.

## TECHNICAL PROGRAMS

Technical curriculums are designed to prepare individuals for employment in fields recognized as semiprofessional or paraprofessional in status. They are comprised of collegiate-level studies (not necessarily transferable) providing a greater degree of theoretical knowledge than manipulative skills and are oriented to a broad occupational cluster. Programs involve the application of scientific principles in research, design, development, production, distribution, or service. Programs consist of a sequence of courses which generally can be completed in two years by a full-time student.

The Associate in Applied Science (A.A.S.) degree is awarded to the graduate of a technical curriculum. Such programs require from 96 to 128 quarter hour credits. The certificate is awarded to the graduate of a technical specialty curriculum, which must include at least 16 quarter hours credits.

An overall grade point average of 2.00 or higher is required for all degrees and certificates.


## ACCOUNTING (T-016)

Associate in Applied Science Degree
The purpose of the Accounting curriculum is to prepare the individual to enter the accounting profession through study of accounting principles, theories and practices with related study in law, finance, management and data processing operations.

The curriculum is designed to prepare the individual for entry-level accounting positions, such as junior accountant, bookkeeper, accounting clerk, cost clerk, payroll clerk and related data processing occupations.

With experience and additional education, the individual will be able to advance to positions such as system accountant, cost accountant, budget accountant and property accountant.
Course Title
FIRST QUARTER
BUS 150 Business Law I ..... 3
BUS 152 Introduction to Business ..... 5
BUS 161 Accounting Principles I. ..... 4
ENG 155 Composition I ..... 5
SECOND QUARTER
BUS 128 Business Mathematics ..... 4
BUS 151 Business Law II ..... 3
BUS 162 Accounting Principles II ..... 4
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
THIRD QUARTER
EDP 162 Spreadsheet Processing on the PC. ..... 3
BUS 163 Accounting Principles III ..... 4
ECO 251 Macroeconomics. ..... 5
BUS 101 Typewriting I (Waived for 30 wpm ) or Related Elective ..... 3
FOURTH QUARTER
MAT 155 Intermediate Algebra ..... 5
ECO 252 Microeconomics ..... 5
EDP 161 Word Processing on the PC ..... 3
BUS 136 Professional Development ..... 3
FIFTH QUARTER
BUS 224 Business Management ..... 5
BUS 228 Consumer Finance ..... 3
BUS 241 Intermediate Accounting I ..... 4
BUS 244 Cost Accounting ..... 4
SIXTH QUARTER
BUS 200 Accounting on the Microcomputer ..... 4
BUS 229 Business Finance ..... 3
BUS 242 Intermediate Accounting II ..... 4
BUS 248 Auditing ..... 4
Elective ..... 3
SEVENTH QUARTER
BUS 220 Business Communications ..... 3
BUS 243 Intermediate Accounting III. ..... 4
BUS 246 Taxes ..... 4
ENG 250 Oral Communication ..... 3
Related Elective ..... 3
Total Credit Hours ..... 115 (114)
APPROVED RELATED ELECTIVES:
BUS 134 Principles of Supervision ..... 3
BUS 223 Principles of Selling ..... 3
BUS 225 Principles of Marketing ..... 3
BUS 234 Personnel Management ..... 3
BUS 238 Business Insurance ..... 5
EDP 164 Desktop Publishing ..... 3
EDP 158 Introduction to the IBM PC with BASIC Programming ..... 4
EDP 160 Advanced BASIC ..... 3
EDP 163 Database Processing on the PC ..... 3

CO-OP Option: Qualified students may elect to take up to 3 credit hours of Cooperative Education as the three hours elective credit.

## ACCOUNTING (T-016)

## Certificate Option

Course Title
Qtr. Hrs. Credit
BUS 161 Accounting Principles I ..... 4
BUS 150 Business Law I ..... 3
BUS 101 Typewriting I (waived for 30 wpm ) ..... 3
BUS 162 Accounting Principles II ..... 4
BUS 151 Business Law II ..... 3
EDP 161 Word Processing on the PC ..... 3
BUS 163 Accounting Principles III ..... 4
BUS 220 Business Communications ..... 3
EDP 162 Spreadsheet Processing on the PC. ..... 3
BUS 200 Accounting on the Microcomputer ..... 4
BUS 136 Professional Development ..... 3
Related Electives ..... 3
Total Credit Hours for Certificate ..... 40

## ADMINISTRATIVE OFFICE TECHNOLOGY (T-030)

## Associate in Applied Science Degree

This curriculum prepares individuals to perform secretarial and administrative support duties in a variety of offices including those offices with computerized, automated functions.

Students in this curriculum study keyboarding and word/information processing to develop skills in the preparation of business correspondence, reports, statistical copy, manuscripts and business forms. Administrative support courses emphasize typical office tasks such as scheduling appointments, composing correspondence and performing reprographic duties. Training is also provided in analyzing and coordinating office duties and systems. Skills and knowledge are taught in the areas of electronic document storage and retrieval and computer software utilization.

Graduates of the program may be employed in offices in private business establishments involved in retailing, marketing, advertising, and manufacturing as well as offices in local, state, and federal government.

| Course Title |  |  | Qtr. Hrs. Credit |
| :---: | :---: | :---: | :---: |
| FIRS |  | RTER |  |
| BUS | 122 | Records Management | 3 |
| BUS | 101 | Typewriting I | 3 |
| BUS | 156 | Shorthand I. | 4 |
| ENG | 155 | Composition I | 5 |
| SECOND QUARTER |  |  |  |
| BUS | 125 | OfficeProcedures I | ... 3 |
| BUS | 102 | Typewriting II |  |
| BUS | 157 | Shorthand II. | 4 |
| EDP | 161 | Word Processing on the PC. | 3 |
| ENG | 156 | Composition II or . . . . . . |  |
| ENG | 106 | Technical Writing | ... (4) |
| THIRD QUARTER |  |  |  |
| BUS | 126 | OfficeProcedures II |  |
| BUS | 103 | Typewriting III | 3 |
| BUS | 158 | Shorthand III | 4 |
| EDP | 162 | Spreadsheet Processing on the | 3 |
| ENG | 250 | Oral Communication. | 3 |
| FOURTH QUARTER (Summer) |  |  |  |
| BUS | 152 | Introduction to Business | 5 |
| MAT | 155 | Intermediate Algebra. | 5 |
| EDP | 164 | Desktop Publishing....... | 3 |
|  |  | General Education Elective. | 3 |
| FIFTH QUARTER |  |  |  |
| BUS | 161 | Accounting Principles I. |  |
| BUS | 128 | Business Mathematics | 4 |
| BUS | 150 | Business Law |  |
| BUS | 201 | Advanced Typewriting I | 3 |
| BUS | 211 | Shorthand and Transcription | 4 |

SIXTH QUARTER
BUS 162 Accounting Principles II ..... 4
BUS 136 Professional Development. ..... 3
BUS 151 Business Law II ..... 3
BUS 202 Advanced Typewriting II ..... 3
BUS 215 Machine Transcription ..... 4
SEVENTH QUARTER
BUS 220 Business Communications ..... 3
EDP 163 Database Processing on the PC ..... 3
ECO 251 Macroeconomics ..... 5
BUS 203 Advanced Typewriting III ..... 3
Total Credit Hours ..... 114 (113)
ADMINISTRATIVE OFFICE TECHNOLOGY (T-030)
Certificate OptionCourse Title
BUS 122 ..... 122
ent ..... 3

Qtr. Hrs. CreditBUS 101 Typewriting I (or BUS 201)BUS 156 Shorthand3

BUS 125 OfficeProcedures I ..... 4
eProcedures ..... 3
BUS 102 Typewriting II (or BUS 202) ..... 3
BUS 157 Shorthand II ..... 4
BUS 215 Machine Transcription ..... 4
BUS 126 OfficeProceduresII ..... 3
BUS 103 Typewriting III (or BUS 203) ..... 3
BUS 158 Shorthand III ..... 4
EDP 162 Spreadsheet Processing on the PC. ..... 3
BUS 128 Business Mathematics ..... 4
EDP 161 Word Processing on the PC ..... 3
ENG 155 Composition I ..... 5
Total Credit Hours For Certificate ..... 49

# ASSOCIATE DEGREE NURSING PROGRAM (T-059) 

## Associate in Applied Science

The Associate Degree Nursing curriculum is designed to prepare graduates to integrate the principles and theories of nursing and the sciences in utilizing the nursing process in the practice of nursing. The practice of nursing by associate degree nursing graduates consists of: (1) assessing the patient's physical and mental health, including the patient's reaction to illness and treatment regimens; (2) recording and reporting the results of the nursing assessment; (3) planning, initiating, delivering, and evaluating appropriate nursing acts; (4) teaching, delegating to or supervising other personnel in implementing the treatment regimen; (5) collaborating with other health care providers in determining the appropriate health care for a patient; (6) implementing the treatment and pharmaceutical regimen prescribed by any person authorized by State law to prescribe such a regimen; (7) providing teaching and counseling about the patient's health care; (8) reporting and recording the plan for care, nursing care given, and the patient's response to that care; and (9) supervising, teaching, and evaluating those who perform or are preparing to perform nursing functions.

Graduates are eligible to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a registered nurse.

Individuals desiring a career in registered nursing should take algebra and chemistry courses prior to entering the program.
Course Title Qtr. Hrs. CreditFALL QUARTER
PSY 151 Introduction to Psychology ..... 5
BIO 251 Anatomy and Physiology ..... 4
NUR 101 Fundamentals of Nursing ..... 7
NUR 102 Pharmacology in Nursing ..... 2
WINTER QUARTER
NUR 111 Medical/Surgical Nursing I ..... 9
NUR 151 Basic Nutrition. ..... 2
BIO 252 Anatomy and Physiology II ..... 4
NUR 110 Health Assessment in Nursing ..... 2
SPRING QUARTER
NUR 112 Medical/Surgical Nursing II OR
NUR 212 Pediatric Nursing ..... 10
PSY 262 Human Growth \& Development. ..... 5
BIO 253 Anatomy and Physiology III ..... 4
SUMMER QUARTER
NUR 213 Obstetrical Nursing OR
NUR 112 Medical/Surgical Nursing II OR
NUR 113 Medical/Surgical Nursing III ..... 10
BIO 255 Microbiology ..... 5
FALL QUARTER
NUR 213 Obstetrical Nursing OR
NUR 212 Pediatric Nursing OR
NUR 113 Medical/Surgical Nursing III ..... 10
ENG 155 English Composition I ..... 5
SOC 151 Introduction to Sociology ..... 5
WINTER QUARTER
NUR 213 Obstetrical Nursing OR
NUR 212 Pediatric Nursing OR
NUR 113 Medical/Surgical Nursing III ..... 10
Humanities Elective ..... 3
PSY 264 Abnormal Psychology ..... 5
SPRING QUARTER
NUR 215 Nursing Leadership and Trends. ..... 6
NUR 214 Psychiatric Nursing ..... 7
Total Credit Hours ..... 120

## BASIC LAW ENFORCEMENT TRAINING (T189)

The Basic Law Enforcement Training curriculum certificate program prepares individuals to take the Basic Training Law Enforcement Officers certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or it prepares individuals to take the Justice Officers Basic certification examination mandated by the North Carolina Sheriffs' Education and Training Standards Commission. Successful completion of this curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and/or the Sheriffs' Commission. The student satisfactorily completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an inexperienced law enforcement officer.

Job opportunities are available with state, county, and municipal governments in North Carolina. In addition, knowledge, skills, and abilities acquired in this course of study qualify one for job opportunities with private enterprise in such areas as industrial, retail and private security.

## BASIC LAW ENFORCEMENT TRAINING

## Certificate Program

| Subject | Contact Hours |
| :---: | :---: |
| Reading Test and Orientation | .... 4 |
| Constitutional Law | 4 |
| Laws of Arrest, Search, and Seizure | 16 |
| Arrest Procedures. | 8 |
| Law Enforcement Communications | 4 |
| Physical Fitness...... | 49 |
| Mechanics of Arrest: Vehicle Stops. | 8 |
| Elements of Criminal Law | 24 |
| Firearms | 40 |
| ABC Law | 4 |
| First Responder | 41 |
| Juvenile Law. | 8 |
| Patrol Techniques | 20 |
| Defense Tactics. | 16 |
| Crime Prevention | 4 |
| Mechanics of Arrest: |  |
| Processing the Arrestee | 4 |
| Report Writing. . . . . . . | 12 |
| Controlled Substance | 8 |
| Special Populations | 12 |
| Custody Procedures. | 2 |
| Dealing with Victims and Public | 8 |
| Interviews ..... | 8 |
| Hazardous Materials | 12 |
| Crisis Management | 20 |
| Motor Vehicle Laws | 20 |
| Civil Disorders . | 8 |
| Testifying in Court | 14 |

Criminal Investigation. ..... 31
Driver Training ..... 16
Civil Process ..... 25
TrafficAccident ..... 20
Techniques of Traffic Enforcement ..... 8
Supplemental Custody ..... 10
Testing - Reviewing ..... 18
Total Contact Hours ..... 506
Total Credit Hours ..... 26


## BUSINESS ADMINISTRATION (T-018)

## Associate in Applied Science Degree

The Business Administration curriculum is designed to prepare an individual for entry into management positions.

The curriculum develops competencies in the application of management principles. Emphasis is placed on skill development in the areas of management functions, computer applications and analysis, critical thinking and decisionmaking techniques, marketing, finance, legal aspects of business, oral and written communications, and the utilization of human resources.

Through the development of management competencies, the graduate will be able to function as a contributing member of a management team.
Course Title ..... Qtr. Hrs. Credit
FIRST QUARTER
BUS 128 Business Mathematics ..... 4
BUS 152 Introduction to Business ..... 5
BUS 161 Accounting Principles I. ..... 4
ENG 155 Composition I ..... 5
SECOND QUARTER
BUS 162 Accounting Principles II ..... 4
EDP 151 Computer Concepts ..... 4
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
Related Elective ..... 3
THIRD QUARTER
BUS 134 Principles of Supervision ..... 3
BUS 101 Typewriting I (Waived for 30 wpm ) ..... 3
BUS 163 Accounting Principles III ..... 4
BUS 220 Business Communications ..... 3
EDP 161 Word Processing on the PC ..... 3
FOURTH QUARTER
EDP 162 Spreadsheet Processing Using Lotus ..... 3
ENG 250 Oral Communication ..... 3
MAT 155 Intermediate Algebra ..... 5
Related Elective ..... 4
FIFTH QUARTER
BUS 150 Business Law I ..... 3
BUS 224 Business Management ..... 5
BUS 228 Consumer Finance ..... 3
ECO 251 Macroeconomics ..... 5
SIXTH QUARTER
BUS 151 Business Law II ..... 3
BUS 229 Business Finance ..... 3
ECO 252 Microeconomics ..... 5
BUS 225 Principles of Marketing ..... 5

## SEVENTH QUARTER



CO-OP Option: Qualified students may elect to take up to 3 credit hours of Cooperative Education in lieu of the three hours elective credit.

## BUSINESS ADMINISTRATION (T-018)

## Certificate Option

| Course Title | Qtr. Hrs. Credit |
| :---: | :---: |
| BUS 128 | Business Mathematics . . . . . . . . . . . . . . . . . 4 |
| BUS 150 | Business Law I . . . . . . . . . . . . . . . . . . . . . . 3 |
| BUS 152 | Introduction to Business . . . . . . . . . . . . . . . 5 |
| BUS 161 | Accounting Principles I. . . . . . . . . . . . . . . . 4 |
| BUS 136 | Professional Development. . . . . . . . . . . . . 3 |
| BUS 151 | Business Law II . . . . . . . . . . . . . . . . . . . . . 3 |
| BUS 162 | Accounting Principles II . . . . . . . . . . . . . . . 4 |
| ENG 155 | Composition I . . . . . . . . . . . . . . . . . . . . . 5 |
| BUS 163 | Accounting Principles III . . . . . . . . . . . . . . 4 |
| BUS 220 | Business Communications . . . . . . . . . . . . . 3 |
| BUS 223 | Principles of Selling . . . . . . . . . . . . . . . . . . . 3 |
| ENG 156 | Composition II or . . . . . . . . . . . . . . . . . . . 5 |
| ENG 106 | Technical Writing . . . . . . . . . . . . . . . . . . (4) |
| BUS 224 | Business Management . . . . . . . . . . . . . . . . . 5 |
| EDP 162 | Spreadsheet Processing Using Lotus . . . . . 3 |
| EDP 161 | Wordprocessing Using Word Perfect . . . . . 3 |
| ENG 250 | Oral Communication. . . . . . . . . . . . . . . . . 3 |
|  | Total Hours For Certificate 60 (59) |

## BUSINESS COMPUTER PROGRAMMING (T-022)

## Associate in Applied Science Degree

The primary objective of the Business Computer Programming curriculum is to prepare individuals for gainful employment as computer programmers. The objective is fulfilled through study and application in areas such as computer and systems theories and concepts, data processing techniques, business operations, logic, flow charting, programming procedures and languages and types, uses and operation of equipment.

Entry-level jobs as computer programmer and computer programmer trainee are available. With experience and additional education, the individual may enter jobs such as data processing manager, computer programmer, systems analyst and systems manager.

SEVENTH QUARTER
EDP 163 Database Processing Using DBase. ..... 3
EDP 164 Desktop Publishing Using Pagemaker ..... 5
EDP 210 Final Project ..... 3
BUS 220 Business Communications ..... 5
Related Elective ..... 5
Total Credit Hours ..... 117 (116)APPROVED RELATED ELECTIVES:
Eighteen hours of Related Electives must be selected from the following list
of approved related electives:
BUS 150 Business Law I ..... 3
BUS 151 Business Law II ..... 3
BUS 152 Introduction to Business ..... 5
BUS 224 Business Management ..... 5
BUS 228 Consumer Finance ..... 3
BUS 229 Business Finance ..... 3
COE Cooperative Education ..... 1-4
BUSINESS COMPUTER PROGRAMMING (T-022)
Certificate Program

| Cour | Title | Qtr. Hrs. Credit |  |
| :---: | :---: | :---: | :---: |
| BUS | 101 | Typewriting I | 3 |
| EDP | 151 | Computer Concepts | 4 |
| EDP | 158 | Introduction to IBM P.C. with BASIC Programming | $4$ |
| BUS | 161 | Accounting Principles I. | 4 |
| BUS | 107 | RPG I . . . . . . . . . . . . | 5 |
| EDP | 161 | Wordprocessing on the PC | 3 |
| EDP | 130 | IBM PC DOS. | 1 |
| EDP | 131 | Keyboarding on the IBM PC | 1 |
| EDP | 162 | Spreadsheet Processing on the P.C. | 3 |
| EDP | 163 | Database Processing on the PC or |  |
| EDP | 164 | Desktop Publishing | 3 |
|  |  | Total Credit Hours For Certificate | 31 |

## CRIMINAL JUSTICE PROTECTIVE SERVICES TECHNOLOGY (T-129)

## Associate in Applied Science Degree

The Criminal Justice Technology curriculum is designed so that it may be a multifaceted program of study. It may consist of study options in corrections, law enforcement and security services.

The curriculum is designed with a core of courses to afford one the opportunity to acquire basic knowledge, skills and attitudes in the generally accepted subject areas associated with a two-year study of correctional services, law enforcement services and security services. It includes subjects such as interpersonal communications, law, psychology, and sociology.

In addition to core subjects, the correctional services option provides an opportunity to study other generally accepted subjects indigenous to a two-year correctional services program such as confinement facility administration, correctional law, counseling, probation-parole services and rehabilitation options. Similarly, the law enforcement option provides an opportunity to study other generally accepted subjects included in a two-year law enforcement services program such as criminal behavior, criminal investigation, patrol operation, traffic management, and other aspects of law enforcement administration and operations.

Job opportunities are available with federal, state, county and municipal governments. In addition, knowledge, skills and attitudes acquired in this course of study qualify one for job opportunities with private enterprise in such areas as industrial, retail and private security.

| Course Title | Qtr. Hrs. Credit |
| :--- | :--- | :--- | :--- |
| FIRST QUARTER |  |

LAW ENFORCEMENT OPTION
FOURTH QUARTER
CJC 205 Criminal Evidence ..... 5
CJC 206 Community Relations ..... 3
CJC 210 Criminal Investigations ..... 5
HEA 251 First Aid and Safety ..... 3
Elective ..... 3
FIFTH QUARTER
CJC 203 Corrections ..... 3
CJC 211 Criminalistics I ..... 5
CJC 218 Patrol Procedures ..... 3
PSY 264 Abnormal Psychology ..... 5
SOC 271 Social Problems I ..... 3
SIXTH QUARTER
CJC 202 TrafficEnforcement ..... 5
CJC 212 Criminalistics II ..... 5
CJC 222 Criminal Justice Administration ..... 3
EDP 151 Computer Concepts ..... 4
Social Science Elective ..... 3
Total Hours Credit ..... 116 (115)CO-OP OPTION: Qualified students may elect to take up to 3 credit hoursof Cooperative Education in lieu of the 3 hours elective credit.
CORRECTIONS OPTION
FOURTH QUARTER
CJC 205 Criminal Evidence ..... 5
CJC 206 Community Relations ..... 3
HEA 251 First Aid and Safety ..... 3
PSY 203 Adolescent Psychology ..... 3
SOC 151 Introduction to Sociology ..... 5
FIFTH QUARTER
CJC 203 Corrections ..... 3
CJC 207 ConfinementFacilities Administration ..... 3
CJC 230 Counseling ..... 3
CJC 234 Community Based Corrections ..... 3
PSY 264 Abnormal Psychology ..... 5
SOC 271 Social Problems I ..... 3
SIXTH QUARTER
CJC 204 Paroles, Probation, and Pardons ..... 3
CJC 209 Correction Law ..... 3
CJC 222 Criminal Justice Administration ..... 3
CJC 223 Corrections Counseling ..... 4
Elective ..... 3
Related Elective ..... 3
Total Credit Hours ..... 116 (115)

RELATED ELECTIVES TO BE CHOSEN FROM:
CJC 240 Constitutional Law ......................... 3
CJC 241 Drug \& Alcohol Addiction and Treatment. . 5
CJC 242 Drug \& Alcohol Abuse Prevention. ...... 3
SOC 272 Social Problems II .......................... . . . 3
EDP 161 Word Processing on the PC.............. 3
CO-OP OPTION: Qualified students may elect to take up to 3 credit hours of Cooperative Education in lieu of the 3 hours elective credit.

# CRIMINAL JUSTICE <br> PROTECTIVE SERVICES TECHNOLOGY (T-129) 

## Certificate Programs

| Course Title |  |  | Qtr. Hrs. Credit |
| :---: | :---: | :---: | :---: |
| Police Administration Specialization |  |  |  |
| CJC | 203 | Corrections....... . . . . | 3 |
| CJC | 206 | Community Relations | 3 |
| CJC | 222 | Criminal Justice Administration. | 3 |
| POL | 251 | American National Government | 5 |
| POL | 261 | State and Local Government | 5 |
|  |  | Total Credit Hours For Certificate | 19 |
| Course Title |  |  | Qtr. Hrs. Credit |
| Correction Administration Specialization |  |  |  |
| CJC | 206 | Community Relations . | 3 |
| CJC | 207 | Confinement Facilities Administration | n.... 3 |
| CJC | 222 | Criminal Justice Administration. |  |
| ENG | 250 | Oral Communications. | 3 |
| POL | 251 | American National Government | 5 |
| POL | 261 | State and Local Government | 5 |
|  |  | Total Credit Hours For Certificate | 22 |
| Course Title |  |  | Qtr. Hrs. Credit |
| Investigative Specialization |  |  |  |
| CJC | 210 | Criminal Investigation. |  |
| CJC | 211 | Criminalistics I. |  |
| CJC | 212 | Criminalistics II | 5 |
| CJC | 242 | Drug and Alcohol Abuse Prevention |  |
| ENG | 250 | Oral Communication. | ...... 3 |
|  |  | Total Credit Hours For Certificate | 21 |
| Course Title |  |  | Qtr. Hrs. Credit |
| Corrections Specialization |  |  |  |
| CJC | 101 | Introduction to Criminal Justice | 5 |
| CJC | 203 | Corrections | 3 |
| CJC | 204 | Paroles, Probation, and Pardons | 3 |
| CJC | 209 | Correction Law ............ | 3 |
| CJC | 223 | Correction Counseling | 4 |
| CJC | 230 | Counseling . . . . |  |
| CJC | 234 | Community Based Corrections | 3 |
| CJC | 241 | Drug and Alcohol Addiction Treatme | nent. . . 5 |
| HEA | 251 | First Aid and Safety............ | . |
|  |  | Total Credit Hours for Certificate | 32 |

Course TitleQtr. Hrs. Credit
Legal Specialization
CJC 112 Criminal Law ..... 5
CJC 125 Criminal Procedure ..... 5
CJC 205 Criminal Evidence .....  5
CJC 240 Constitutional Law ..... 3
Total Credit Hours For Certificate ..... 18
Course TitleQtr. Hrs. CreditPatrol Specialization
CJC 101 Introduction to Criminal Justice ..... 5
CJC 202 TrafficEnforcement ..... 5
CJC 218 Patrol Procedures. ..... 3
HEA 251 First Aid and Safety ..... 3
Total Credit Hours For Certificate ..... 16
Course TitleQtr. Hrs. CreditCriminology Specialization
CJC 102 Criminology ..... 5
CJC 110 Juvenile Delinquency ..... 5
PSY 151 Introduction to Psychology ..... 5
PSY 264 Abnormal Psychology ..... 5
PSY 203 Adolescent Psychology ..... 3
SOC 151 Introduction to Sociology ..... 5
SOC 271 Social Problems I. ..... 3
Total Credit Hours For Certificate ..... 31

# DRAFTING AND DESIGN ENGINEERING TECHNOLOGY (T-043) 

## Associate in Applied Science Degree

The drafting and design technology curriculum prepares technicians for drafting and/or designing mechanical parts, mechanisms and mechanical systems.

Emphasis is placed on developing the student's ability to think and plan as well as on the development of drafting and design skills. Computer Aided Drafting (CAD) and conventional equipment will be used to produce drawings such as sectional views, subassemblies and major components of machinery and mechanical systems.

Course work includes the study of technical drafting and design, materials, applied mechanics, mechanical systems, manufacturing methods, manufacturing processes, applied physics, technical mathematics, descriptive geometry, computer applications and written and oral communications.

Drafting and design technicians are employed in many types of manufacturing, fabrication, research and development and service industries.
Course TitleFIRST QUARTER
DFT 101 Technical Drafting I ..... 4
MEC 101 Machine Processes I ..... 3
MAT 161 College Algebra ..... 5
ENG 155 Composition I ..... 5
SECOND QUARTER
DFT 102 Technical Drafting II. ..... 4
DFT 120 CAD Drafting I ..... 4
MAT 162 Trigonometry ..... 5
ENG 106 Technical Writing or ..... 4
ENG 156 Composition II ..... 5
MEC 102 Machine Processes II ..... 3
THIRD QUARTER
DFT 103 Technical Drafting III ..... 4
DFT 121 CAD Drafting II ..... 4
MEC 112 Numerical Control Theory ..... 3
MEC 114 Hydraulic and Pneumatic Fundamentals ..... 4
Elective ..... 3
FOURTH QUARTER
DFT 201 Technical Drafting IV ..... 4
MEC 113 Numerical Control Practice ..... 4
MEC 211 Physical Metallurgy ..... 3
MEC 123 Computer Aided Manufacturing ..... 4
FIFTH QUARTER
DFT 122 CAD Drafting III ..... 4
DFT 204 Descriptive Geometry ..... 4
PHY 271 General Physics. ..... 4
ECO 251 Macroeconomics. ..... 5
SIXTH QUARTER
DFT 123 CAD Key Drafting I ..... 4
DFT 202 Technical Drafting V ..... 4
PHY 272 General Physics II ..... 4
Related Elective ..... 5
SEVENTH QUARTER
DFT 203 Technical Drafting VI ..... 4
PHY 273 General Physics III ..... 4
ENG 250 Oral Communications ..... 3
Related Elective ..... 3
Social Science elective ..... 3
Total Credit Hours ..... 122 (121)
APPROVED RELATED ELECTIVES
BUS 101 Typewriting I
BUS 134 Principles of Supervision
DFT 124 CAD Key Drafting IIEDP 151 Computer ConceptsEDP 161 Word Processing on the PCCOE 150 Cooperative Education - 1 hour
DRAFTING AND DESIGN TECHNOLOGY (T-043) Certificate Options
Specialization in Board Drafting
Course Title Qtr. Hrs. Credit
DFT 101 Technical Drafting I ..... 4
DFT 102 Technical Drafting II. ..... 4
DFT 103 Technical Drafting III ..... 4
DFT 201 Technical Drafting IV ..... 4
Total Credit Hours for Certificate ..... 16
Specialization in CAD/CAM
DFT 120 Auto CAD Drafting I ..... 4
DFT 121 Auto CAD Drafting II ..... 4
DFT 122 Auto CAD Drafting III ..... 4
MEC 123 Computer Aided Manufacturing ..... 4
Total Credit Hours for Certificate ..... 16
CO-OP OPTION: Qualified students may elect to take up to three credit hours Cooperative Education in lieu of the three hours elective credit.

# ELECTRONICS ENGINEERING TECHNOLOGY (T-045) 

## Associate in Applied Science Degree

The Electronics curriculum provides a basic background in electronic related theory, with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may work as assistants to engineers or as liaisons between engineers and skilled craftspersons.

The electronics technician will start in one or more of the following areas: research, design, development, production, maintenance or sales. The graduate may begin as an electronics technician, an engineering aide, laboratory technician, supervisor or equipment specialist.
Course Title ..... Qtr. Hrs. Credit
FIRST QUARTER
ELC 112 Electrical Fundamentals I ..... 6
ENG 155 Composition I ..... 5
DFT 113 Electronic Drafting ..... 4
MAT 155 Intermediate Algebra ..... 5
SECOND QUARTER
ELC 113 Electrical Fundamentals II ..... 6
ELN 219 Digital Fundamentals ..... 5
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
MAT 161 College Algebra ..... 5
Elective ..... 3
THIRD QUARTER
ELN 121 Electronics I ..... 5
ELN 203 Microprocessors ..... 7
MAT 162 Trigonometry ..... 5
Social Science Elective ..... 3
FOURTH QUARTER
ELN 122 Electronics II ..... 7
ELN 220 Electronic Systems ..... 6
FIFTH QUARTER
ELN 123 Electronics III ..... 6
ELN 229 Digital Circuits ..... 6
ENG 250 Oral Communication ..... 3
PHY 271 General Physics I ..... 4
SIXTH QUARTER
ELC 222 Solid State Controls ..... 4
ELN 202 Electronic Communications Systems ..... 7
PHY 272 General Physics II ..... 4
Social Science Elective ..... 3

## SEVENTH QUARTER

ELN 208 Industrial Electronics...................... . . 6
ELN 246 Electronics Design Project ................. . 3
PHY 273 General Physics III. . . . . . . . . . . . . . . . . . . . . 4
Total Credit Hours 127 (126)
CO-OP OPTION: Qualified students may elect to take up to 3 credit hours of Cooperative Education in lieu of the 3 hours elective credit.

## ELECTRONICS ENGINEERING TECHNOLOGY (T-045) Certificate Program

Specialization in Basic Electronics

Course Title
ELC 112
ELN 121
ELN 122
ELN 123

Qtr. Hrs. Credit
Electrical Fundamentals I . . . . . . . . . . . . . . . 6
Electronics I . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Electronics II ............................. . . . . 7
Electronics III. . . . . . . . . . . . . . . . . . . . . . . . . 6
Total credit hours required for Certificate 24


## GENERAL OFFICE (T-033) <br> Associate in Applied Science Degree

The purposes of the General Office curriculum are to: (1) prepare the individual to enter clerical-office occupations, (2) provide an educational program for individuals wanting education for upgrading (moving from one position to another) or retraining (moving from present position to a clerical position), and (3) provide an opportunity for individuals wanting to fulfill professional or general interest needs.

These purposes will be fulfilled through skill development in the areas of typewriting, filing and business machines. Through these skills and through development of personal competencies and qualities, the individual will be able to function effectively in office-related activities.
Course Title Qtr. Hrs. Credit
FIRST QUARTER
BUS 128 Business Mathematics ..... 4
BUS 122 Records Management ..... 3
BUS 101 Typewriting I ..... 3
ENG 155 Composition I ..... 5
SECOND QUARTER
BUS 125 Office ProceduresI ..... 3
BUS 102 Typewriting II ..... 3
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
MAT 155 Intermediate Algebra ..... 5
THIRD QUARTER
BUS 134 Principles of Supervision ..... 3
EDP 162 Spreadsheet Processing on the PC. ..... 3
BUS 126 OfficeProcedures II ..... 3
BUS 103 Typewriting III ..... 3
BUS 150 Business Law I ..... 3
FOURTH QUARTER
BUS 136 Professional Development ..... 3
BUS 151 Business Law II ..... 3
EDP 164 Desktop Publishing Using Pagemaker . ..... 3
ENG 250 Oral Communication. ..... 3
Elective ..... 3
FIFTH QUARTER
BUS 161 Accounting Principles I ..... 4
BUS 152 Introduction to Business ..... 5
BUS 201 Advanced Typewriting I ..... 3
EDP 161 Wordprocessing on the PC ..... 3
SIXTH QUARTER
BUS 162 Accounting Principles II ..... 4
BUS 202 Advanced Typewriting II ..... 3
BUS 215 Machine Transcription ..... 4
ECO 251 Macroeconomics ..... 5
SEVENTH QUARTER
BUS 246 Taxes ..... 4
BUS 220 Business Communications ..... 3
EDP 163 Database Processing Using DBase ..... 3
ECO 252 Microeconomics ..... 5
BUS 203 Advanced Typewriting III ..... 3
Total Credit Hours ..... 110 (109)

CO-OP OPTION: Qualified students may elect to take up to 3 credit hours of Cooperative Education in lieu of the 3 hours elective credit. (Six hours if BUS 101 is waived)

## GENERAL OFFICE (T-033)

 Certificate Program| Course Title |  | Qtr. Hrs. Credit |
| :--- | :--- | :--- |
| BUS | 122 | Records Management $\ldots \ldots \ldots \ldots$ |
| BUS | 101 | Typewriting I (or BUS 201) $\ldots \ldots \ldots \ldots \ldots$ |

## GENERAL TECHNOLOGY CURRICULUM CORE (T201)

## Certificate

General Technology Curriculum Core is designed as a career mobility program for technical students to acquire the general education and related courses in subject areas such as humanities, communications, social sciences, and theoretical and applied sciences such as biology, chemistry, physics, mathematics, general computer studies and general graphics (drafting) that are foundation courses to specific curriculums in the technical field. After completion of this certificate curriculum the student has job skills for occupations requiring communications skills and/or science and mathematics. The student may take this program as the first level in a specific technical curriculum as an intended objective component of that technical curriculum. Students may also take this program for transfer to a technical curriculum at another community college system institution either prior to or concurrently with enrollment at the institution at which they intend to pursue or are pursuing a technical curriculum degree.

| Course Title |  |  | Qtr. Hrs. Credit |
| :---: | :---: | :---: | :---: |
| RELATED COURSES |  |  |  |
| BIO | 251 | Anatomy \& Physiology I | 4 |
| BIO | 252 | Anatomy \& Physiology II. | 4 |
| BIO | 253 | Anatomy \& Physiology III | 4 |
| BIO | 255 | Microbiology | 5 |
| CHM | 164 | Physiological Chemistry | 4 |
| DFT | 113 | Electronic Drafting | 4 |
| EDP | 161 | Wordprocessing on the PC. | 3 |
| EDP | 162 | Spreadsheet Processing on the PC | 3 |
| EDP | 163 | Database Processing on the PC | 3 |
| ENG | 250 | Oral Communication. | 3 |
| MAT | 155 | Intermediate Algebra. | 5 |
| MAT | 161 | College Algebra . . . | 5 |
| MAT | 162 | Trigonometry | 5 |
| PHY | 101 | Properties of Matter | 4 |
| PHY | 102 | Mechanics | 4 |
| PHY | 103 | Electricity | 4 |
| PHY | 271 | General Physics I | 4 |
| PHY | 272 | General Physics II | 4 |
| PHY | 273 | General Physics III. | 4 |
| POL | 251 | American National Government | 5 |
| POL | 261 | State \& Local Government. | 5 |
| PSY | 262 | Human Growth \& Development. | 5 |
| PSY | 264 | Abnormal Psychology | 5 |
| SOC | 271 | Social Problems I. | 3 |
| SOC | 272 | Social Problems II | 3 |

Courses from the above related list must be taken to total 24 quarter hours credit.
GENERAL EDUCATION ..... 18
ECO 251 Macroeconomics ..... 5
ECO 252 Microeconomics ..... 5
ENG 106 Report Writing ..... 4
ENG 155 Composition I ..... 5
ENG 156 Composition II ..... 5
ENG 250 Oral Communication ..... 3
PSY 151 Introduction to Psychology ..... 5
SOC 151 Introduction to Sociology. ..... 3

Courses from the above General Education list must be taken to total 18 quarter credit hours.
ELECTIVES ..... 6

Any course in the college catalog from the following areas that total at least 6 quarter hours credit can be taken as free electives: humanities, communications, social sciences, and theoretical and applied sciences such as biology, chemistry, physics, math, general computer studies, and general graphics (drafting).

Total Credit Hours48

## HUMAN SERVICES TECHNOLOGY (T-136) <br> Associate in Applied Science Degree

The Human Services Technology curriculum is designed to prepare graduates for entry into a variety of positions in institutions and agencies which provide social, community and educational services to people. Along with the human services courses, the curriculum provides for electives that allow the students to specialize in a specific work interest area. During the last five quarters, emphasis is placed on the development of relevant knowledge and skills pertinent to the chosen area. Internships in one or more areas of human services are included in the final phases of the curriculum.

Graduates may find employment in child care agencies, family services agencies, hospitals, mental health centers, public welfare departments, schools and rehabilitation agencies.

Individuals desiring a career in human services technology should, if possible, take biology, psychology and sociology courses prior to entering the program.
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ENG 155 Composition I ..... 5
HSE 101 Introduction to Human Services ..... 3
PSY 151 Introduction to Psychology ..... 5
SOC 151 Introduction to Sociology ..... 5
SECOND QUARTER
HSE 151 Interviewing \& Counseling ..... 5
SOC 271 Social Problems I ..... 3
MAT 155 Intermediate Algebra or
MAT 161 College Algebra ..... 5
ENG 106 Technical Writing ..... 4
THIRD QUARTER
PSY 262 Human Growth \& Development ..... 5
SOC 272 Social Problems II ..... 3
HSE 102 Introduction to Health Care ..... 5
HSE 202 Introduction to Social Welfare ..... 5
FOURTH QUARTER
HSE 205 Intro to Family Interventions ..... 4
EDP 151 Computer Concepts ..... 4
HEA 253 Community Health ..... 3
SOC 155 Understanding Diversity ..... 3

## FIFTH QUARTER

HSE 204 Introduction to Developmental Disabilities 3
CHM 164 Physiological Chemistry ................... 4
PSY 203 Adolescent Psychology .................... . 3
HSE 103 Intro to Gerontology . . . . . . . . . . . . . . . . . . . 3
CJC 206 Community Relations ..................... 3
Humanities Elective. ........................ . 3
SIXTH QUARTER
HSE 203 Intro to Chemical Dependency \& Substance
Abuse ................................... . . 4
PSY 264 Abnormal Psychology ................... 5
SOC 261 Courtship, Marriage \& the Family ....... 5
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SEVENTH QUARTER
HSE 206 Internship in Human Services . . . . . . . . . . 12
HSE 207 Human Services Seminar .................. 3
Total Credit Hours 118


# INDUSTRIAL MAINTENANCE TECHNOLOGY (T-119) <br> Associate in Applied Science Degree 

The Industrial Maintenance Technoogy curriculum is designed to prepare entry-level technicians for servicing, maintaining, repairing and/or installing equipment for a wide range of production industries. Instruction will include theory and practical skill training needed for inspecting, testing, troubleshooting and diagnosing industrial equipment failure problems.

Basic skills in electricity, metal machining, welding, hydraulics/pneumatics, blueprint reading, rigging, piping and pumps, mechanics, air conditioning and heating and programmable logic controllers will be studied.

Students will also be introduced to current maintenance practices and trends such as preventive/predictive maintenance, quality management methods and computerized maintenance management systems.
Course Title ..... Qtr. Hrs. Credit
FIRST QUARTER
DFT 101 Technical Drafting I ..... 4
ELC 112 Electrical Fundamentals I ..... 6
MEC 101 Machine Processes I ..... 3
MAT 161 College Algebra ..... 5
SECOND QUARTER
DFT 120 AutoCAD Drafting I ..... 4
ELC 113 Electrical Fundamentals II ..... 6
MEC 102 Machine Processes II ..... 3
MAT 162 Trigonometry ..... 5
THIRD QUARTER
EDP 151 Computer Concepts ..... 4
ISC 133 Industrial Safety ..... 5
MEC 114 Hydraulic and Pneumatic Fundamentals ..... 4
ENG 155 Composition I ..... 5
FOURTH QUARTER
WLD 110 Techniques of Welding ..... 3
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
Humanities/Social Science/
Fine Arts Elective ..... 3
Elective ..... 3
FIFTH QUARTER
AHR 101 Air Conditioning and Refrigeration ..... 4
MEC 210 Industrial Rigging ..... 3
PLU 110 Piping Components and Installation ..... 4
WLD 112 Shielded Metal ARC Welding ..... 4
PHY 271 General Physics I ..... 4
SIXTH QUARTER
MEC 212 Applied Mechanics ..... 4
ELN 125 Introduction to Programmable Logic Controllers ..... 4
ELC 222 Solid State Controls ..... 4
MNT 201 Preventive/Predictive Maintenance Techniques ..... 3
PSY 201 Applied Psychology ..... 3
SEVENTH QUARTER
MEC 214 Introduction to Pumps ..... 2
MNT 202 Maintenance Practices ..... 2
MNT 203 Maintenance Management ..... 3
WLD 210 Inert Gas Welding ..... 4
ENG 250 Oral Communication. ..... 3
Total Hours Credit ..... 119 (118)
CO-OP OPTION: Qualified students may elect to take up to three hoursCooperative Education in lieu of the three hours elective credit.
INDUSTRIAL MAINTENANCE TECHNOLOGY (T-119) Certificate Option
Course Title

Qtr. Hrs. Credit

ELC 112 Electrical Fundamentals I ..... 6
MEC 101 Machine Processes I. ..... 3
PLU $110 \quad$ Piping Components and Installation ..... 4
AHR 101 Air Conditioning and Refrigeration ..... 4
DFT 101 Technical Drafting I ..... 4
MNT 201 Preventive/Predictive Maintenance Techniques ..... 3
MEC 114 Hydraulic and Pneumatic Fundamentals ..... 4
MEC 210 Industrial Rigging ..... 3
MEC 212 Applied Mechanics ..... 4
MEC 214 Introduction to Pumps ..... 2
WLD 210 Inert Gas Welding ..... 4
Total Credit Hours for Certificate ..... 41

## INDUSTRIAL MANAGEMENT (T-049)

Associate in Applied Science Degree
The Industrial Management curriculum is designed to provide an individual with the ability to function effectively in supervisory and middle-management positions in industry. This program emphasizes study and application in areas such as business and industrial management, production methods and schedules, inventory control, work analysis, motivation techniques and human relations.

This curriculum is designed to prepare the individual to enter supervisory or middle-management positions, to provide an educational program for upgrading or retraining, and to provide an opportunity for the individual wanting to fulfill professional or general interest needs.*
*Includes preparing individuals for certification by the American Production and Inventroy Control Society (APICS). Students who have passed the respective examinations may earn up to 24 hours of credit toward graduation, but will not be included in the GPA.
Course Title Qtr. Hrs. Credit
FIRST QUARTER
BUS 150 Business Law I ..... 3
BUS 152 Introduction to Business ..... 5
ENG 155 Composition I ..... 5
BUS $101{ }^{* *}$ Typewriting I (Waived for 30 wpm ..... 3
SECOND QUARTER
BUS 234 Personnel Management ..... 3
EDP 162 Spreadsheet Processing on the PC .....  3
MAT 155 Intermediate Algebra ..... 5
ENG 156 Composition II or ..... 5
ENG 106 Technical Writing ..... (4)
THIRD QUARTER
BUS 128 Business Mathematics ..... 4
BUS 134 Principles of Supervision. ..... 3
ISC 133 Industrial Safety ..... 5
EDP 163 Database Processing Using DBase ..... 3
FOURTH QUARTER
BUS 136 Professional Development ..... 3
BUS 224 Business Management ..... 5
ENG 250 Oral Communication ..... 3
Elective ..... 3
FIFTH QUARTER
ECO 251 Macroeconomics. ..... 5
ISC 210 *Inventory Management ..... 3
ISC $212{ }^{*}$ Material and Capacity Planning ..... 5
ISC 214 *Just-in-Time Continuous Improvement ..... 3
SIXTH QUARTER
BUS 229 Business Finance ..... 3
ECO 252 Microeconomics ..... 5
ISC 216 *Production Planning and Scheduling ..... 5
ISC 218 *Production and Operations Management ..... 5

| SEVENTH QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| ECO | 232 | Labor Economics and Labor Relations |  |
| ISC | 220 | *Production Systems and Technology |  |
| ISC | 230 | Quality Control |  |
|  |  | Total Hours Credit | 110 (109) |
| APPROVED RELATED ELECTIVES |  |  |  |
| BUS | 151 | Business Law II . . . . . . |  |
| BUS | 225 | Principles of Marketing |  |
| BUS | 228 | Consumer Finance. |  |
| EDP | 164 | Desktop Publishing Using Pagemaker |  |
| EDP | 161 | Word Processing on the PC... |  |

**If BUS 101 (Typewriting) is waived, students must take an additional related three credit hour elective.

CO-OP OPTION: Qualified students may elect to take up to 6 credit hours of Cooperative Education in lieu of the 6 hours elective credit.

## INDUSTRIAL MANAGEMENT (T-049) <br> Certificate Program

The Industrial Management Technology Certificate is designed to provide the individual with an overview of important production management skills, techniques, and knowledge necessary to function effectively in a lower level supervisory position in industry. Certificate may be completed on a part-time basis within one year.

| Cour | Title | Qtr. Hrs. Credit |
| :---: | :---: | :---: |
| ISC | 212 | Material and Capacity Planning......... . 5 |
| EDP | 162 | Spreadsheet Processing on the PC....... 3 |
| ISC | 216 | Production Planning and Scheduling .... . 5 |
| ISC | 218 | Production and Operations Management. . 5 |
| BUS | 134 | Principles of Supervision. . . . . . . . . . . . . . 3 |
| ISC | 230 | Quality Control . . . . . . . . . . . . . . . . . . . . . 4 |
| BUS | 224 | Business Management . . . . . . . . . . . . . . . . 5 |
| BUS | 136 | Professional Development. . . . . |
|  |  | Total Credit Hours for Certificate 33 |

# MANUFACTURING ENGINEERING TECHNOLOGY (T-050) <br> (Pending Approval) 

## Diploma

The primary objective of the Manufacturing Engineering Technology curriculum is the training of personnel to assist the engineer or small industry in planning, tooling, operating, servicing and supervising manufacturing operations. This curriculum provides a basic background of mechanical and related theory, with specific skills in the use of manufacturing and testing equipment. Students are given experiences in operating and servicing machines, accompanied by general education and management courses.

A graduate of this program may qualify for an entry level position in one of several manufacturing functions; methods, analysis, production scheduling, quality control, materials testing, plant layout, time study, machine tooling, maintenance and equipment and instrument work.

This program is being articulated with the two-year technical program of Rowan-Cabarrus Community College. A student graduating at Mitchell Community College with a diploma in Manufacturing Engineering Technology will transfer to Rowan-Cabarrus Community College to complete his/her AAS Degree in Manufacturing Engineering Technology.
Course Title Qtr. Hrs. Credit

## FIRST QUARTER

DFT 101 Technical Drafting I ...................... . 4
MEC 101 Machine Processes I. . . . . . . . . . . . . . . . . . . . 3
ENG 155 Composition I ............................. . 5
MAT 161 College Algebra ............................. . 5
PHY 271 General Physics I ........................... . 4

## SECOND QUARTER

DFT 102 Technical Drafting II. ...................... 4
MEC 102 Machine Processes II . . . . . . . . . . . . . . . . . . . 3
ENG 106 Technical Writing ......................... 4
MAT 162 Trigonometry ............................... . 5
PHY 272 General Physics II ......................... . 4

## THIRD QUARTER

MEC 112 Numerical Control Theory................ 3
MEC 114 Hydraulic and Pneumatics Fundamentals. . 4
EDP 151 Computer Concepts. ....................... . 4
MAT 251 Calculus I .................................... . . 5
PHY 273 General Physics III. ........................ . 4
FOURTH QUARTER
DFT 201 Technical Drafting IV ..................... 4
MEC 113 Numerical Control Practice ............... 4
MEC 211 Physical Metallurgy . . . . . . . . . . . . . . . . . . . . . 3
ENG 250 Oral Communication. ...................... 3
Total Credit Hours 75

Transfer Agreements are presently being developed with several other community colleges in the following Allied Health Careers:

## MEDICAL RECORDS TECHNOLOGY (T-053)

The Medical Record Technology curriculum prepares the individual with the knowledge and skills to process, maintain, compile and report health information.

## OCCUPATIONAL THERAPY ASSISTANT (T-142)

The Occupational Therapy Assistant curriculum prepares graduates to work under the supervision or consultation of a Registered Occupational Therapist in developing, maintaining or restoring adaptive skills in individuals whose abilities to cope with the tasks of daily living are threatened or impaired by developmental deficits, aging, or physical or psychosocial disability.

## PHYSICAL THERAPY ASSISTANT (T-062)

The Physical Therapist Assistant curriculum prepares the graduate to assist the professional physical therapist in a variety of direct patient care services including the restoration of function by alleviation or prevention of physical impairment and other activities essential to the operation of a physical therapy service.

## RADIOLOGIC TECHNOLOGY (T-061)

The Radiologic Technology curriculum prepares graduates to be competent Medical Radiographers, qualified to provide patient services using imaging modalities (as directed by physicians qualified to order and/or perform radiologic procedures).

## RESPIRATORY CARE TECHNOLOGY (T-091)

The Respiratory Care Technology curriculum offers career education for respiratory therapists and/or respiratory therapy technicians.

These cooperative agreements will make it possible for local residents to take many of their first year and general courses (program requirements) here at Mitchell Community College, then complete the required technical courses at the neighboring community college conferring the degree. The clinical training for these programs will be provided, whenever possible, at the three Iredell County hospitals.

Students interested in these careers are urged to contact the Admissions Office/ Counselors. All of the core curriculum and/or general courses required in these programs are presently available at Mitchell Community College. We can assist students in working towards these career goals now.

## - VOCATIONAL PROGRAMS

Vocational curriculums are designed to prepare individuals for skilled or semi-skilled employment opportunities and study is primarily oriented to the development of manipulative skill competencies for use in a specialized occupation. Programs consist of a sequence of courses which generally can be completed in one year or less by a full-time student and successful completion of a vocational curriculum program leads to a diploma or certificate.

The diploma is awarded to the graduate of a vocational curriculum that is 64 or more quarter hour credits in length. The college may offer specially designed certificate curriculums by selecting a series of existing specialty courses from approved diploma curriculums. Such certificate curriculums must be at least 16 quarter hour credits in length.

An overall grade point average of 2.00 or higher is required for all diplomas and certificates.


# AIR CONDITIONING, HEATING AND REFRIGERATION (V-024) DIPLOMA PROGRAM 

The Air Conditioning, Heating and Refrigeration curriculum is designed to teach knowledge and skills necessary for servicing and installing residential and light commercial climate control equipment. Instruction will include heating and cooling theory, applied electricity and electronics, and the operating principles for a wide-range of heating and cooling' equipment. The diploma program will emphasize start-up and service skills for oil, gas and electric furnaces, air-cooled air conditioning and air-to-air heat pumps.
Course TitleFIRST QUARTER
ELC. Ill Introduction to Electricity ..... 4
AHR 1115 Fundamentals of Heating ..... 3
AHR 1116 Servicing Heating Systems ..... 4
BUS 136 Professional Development. ..... 3
MAT 1101 Trade Mathematics I ..... 3
DFT 1110 Blueprint Reading: Building Trades ..... 2
SECOND QUARTER
AHR 1111 Automatic Controls I ..... 2
AHR 1121 Principles of Refrigeration ..... 6
AHR 1125 Heat Loss \& Heat Gain Calculations ..... 3
DFT 1113 Blueprint Reading: Electrical .....  1
MAT 1102 Trade Mathematics II ..... 3
PHY 1101 Applied Science I ..... 3
THIRD QUARTER
AHR 1112 Automatic Controls II ..... 2
AHR 1123 Fundamentals of Air Conditioning ..... 3
AHR 1124 Air Conditioning, Heating \& Refrigeration Servicing ..... 4
AHR 1127 Air Conditioning Servicing ..... 4
ENG 1103 Communication Skills I ..... 3
WLD 1111 Oxyacetylene Cutting ..... 2
FOURTH QUARTER
AHR 1130 All-Weather Systems: Conventional ..... 6
AHR 1131 All-Weather Systems: Heat Pumps ..... 6
EDP 130 IBM PC DOS ..... 1
ENG 1104 Communication Skills II ..... 3
Total Credit Hours ..... 71
AIR CONDITIONING, HEATING, AND REFRIGERATION (V-024) CERTIFICATE PROGRAMS
Specialization in Heating
Course Title Qtr. Hrs. Credit
AHR 1111 Automatic Controls I ..... 2
AHR 1112 Automatic Controls II ..... 2
AHR 1115 Fundamentals of Heating ..... 3
AHR 1116 Servicing Heating Systems ..... 4
AHR 1125 Heat Loss and Heat Gain ..... 3
AHR 1130 All-Weather Systems: Conventional ..... 6
Total Credit Hours Required for Certificate ..... 20
Specialization in Air Conditioning and Refrigeration
Course Title Qtr. Hrs. Credit
AHR 1121 Principles of Refrigeration ..... 6
AHR 1111 Automatic Controls I ..... 2
AHR 1112 Automatic Controls II ..... 2
AHR 1123 Fundamentals of Air Conditioning ..... 3
AHR 1127 Air Conditioning Servicing. ..... 4
Total Credit Hours Required for Certificate ..... 17

## AUTOMOTIVE MECHANICS (V-003) DIPLOMA PROGRAM

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and adjust automotive vehicles. Manual skills are developed in practical shop work and the technical understanding of the operating principles involved in the modern automobile are taught through class assignments, discussions and shop practices.

Automobile mechanics maintain and repair mechanical, electrical and body parts of passenger cars, trucks and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop manuals and other technical publications as references for technical data. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.
Course Title

Qtr. Hrs. Credit

FIRST QUARTER
PME 1101 Internal Combustion Engines ..... 4
PME 1120 Automotive Electrical Systems ..... 2
PME 1204 Auto-Diesel Engine Servicing ..... 4
BUS 136 Professional Development. ..... 3
MAT 1101 Trade Mathematics I ..... 3
SECOND QUARTER
PME 1102 Engine Ignition and Fuel Systems ..... 4
PME 1125 Automotive Servicing ..... 4
EGR 1101 Basic Computers for Automotive Servicing ..... 2
PHY 1101 Applied Science I ..... 3
MAT 1102 Trade Mathematics II ..... 3
THIRD QUARTER
PME 1110 Emissions Control Systems ..... 2
PME 1113 Brake Systems ..... 2
PME 1121 Front Suspension, Alignment and Power Steering ..... 2
PME 1206 Electronic Fuel Injection Systems ..... 6
PME 1232 Front End Drive Train, Steering and Alignment. ..... 2
ENG 1103 Communication Skills I. ..... 3
FOURTH QUARTER
PME 1124 Automotive Power Train Systems ..... 2
PME 1221 Advanced Electrical Systems ..... 2
PME 1224 Automatic Transmissions ..... 5
AHR 1101 Automotive Air Conditioning ..... 3
BUS 1103 Small Business Operations ..... 3
ENG 1104 Communication Skills II ..... 3
Total Credit Hours ..... 67
AUTOMOTIVE MECHANICS (V-003)
Certificate ProgramSpecialization in Electrical/Electronics
Course Title Qtr. Hrs. Credit
PME 1120 Automotive Electrical Systems ..... 2
EGR 1101 Basic Computers for Automotive Servicing 2 ..... 2
4
PME 1110 Emission Controls System ..... 2
PME 1221 Advanced Electrical Systems ..... 2
PME 1206 Electronic Fuel Injection Systems ..... 6
Total Credit Hours Required for Certificate ..... 18
AUTOMOTIVE MECHANICS (V-003) Certificate Program
Course Title Qtr. Hrs. Credit
PME 1101 Internal Combustion Engines ..... 4
PME 1120 Automotive Electrical Systems ..... 2
PME 1102 Engine Ignition and Fuel Systems. ..... 4
PME 1221 Advanced Electrical Systems. ..... 2
PME 1113 Brake Systems ..... 2
PME 1121 Front Suspension, Alignment and PowerSteering2
AHR 1101 Automotive Air Conditioning ..... 3
PME 1124 Automotive Power Train Systems ..... 2
PME 1224 Automatic Transmissions ..... 5
Total Credit Hours Required for Certificate ..... 26

## COSMETOLOGY (V-009) ADVANCED DIPLOMA PROGRAM

The field of cosmetology is based on scientific principles. The Cosmetology curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair cutting and styling, wig service, hair coloring and bleaching (lightening), hair pressing, marcelling, and chemical relaxing.

Upon completion of this program and successful passing of a comprehensive examination administered by the North Carolina State Board of Cosmetic Arts, a license is given. The cosmetologist is called upon to advise men and women on problems of make-up and care of the hair, skin, and hands including the nails. Employment opportunities are available in beauty salons, private clubs, department stores, women's specialty shops, as well as setting up one's own business.

Mitchell Community College offers this curriculum through a contractual agreement with Hair Stylist Academy. Classes are offered at Hair Stylist Academy in Statesville. Related courses are taught on the Mitchell campus.
Course Title Qtr. Hrs. CreditFIRST QUARTER
COS 1001 Scientific Study I ..... 10
COS 1011 Mannequin Practice ..... 5
MAT 1104 Basic Mathematics ..... 3
SECOND QUARTER
COS 1002 Scientific Study II ..... 5
COS 1022 Clinical Applications I ..... 10
ENG 1102 Occupational Communications ..... 3
THIRD QUARTER
COS 1003 Scientific Study III ..... 5
COS 1033 Clinical Applications II ..... 10
PSY 1101 Human Relations ..... 3
FOURTH QUARTER
COS 1004 Scientific Study IV ..... 5
COS 1044 Clinical Applications III ..... 10
BUS 1103 Small Business Operations ..... 3
Total Credit Hours ..... 72

## ELECTRICAL INSTALLATION AND MAINTENANCE (V-018) DIPLOMA PROGRAM

The Electrical Installation and Maintenance curriculum is designed to provide a training program in the basic knowledge, fundamentals and practices involved in the electrical trades. A large segment of the program is laboratory and shop instruction designed to give the student practical knowledge and application experience in the fundamentals taught in class.

The graduate of this curriculum is qualified to enter an electrical trade as an on-the job trainee or apprentice, assisting in the layout, installation check out and maintenance of systems in residential, commercial or industrial settings.
Course Title Qtr. Hrs. CreditFIRST QUARTER
ELC 112 Electrical Fundamentals I ..... 6
ELC 1103 AC \& DC Machines ..... 6
ELC 1115 Electrical Mathematics. ..... 5
BUS 136 Professional Development. ..... 3
DFT 1110 Blueprint Reading: Building Trades ..... 2
SECOND QUARTER
ELC 113 Electrical Fundamentals II ..... 6
ELC 1104 AC \& DC Machine Controls ..... 6
PHY 1101 Applied Science I ..... 3
DFT 1113 Blueprint Reading: Electrical ..... 1
THIRD QUARTER
ELN 121 Electronics I ..... 5
ELC 1124 Residential Wiring ..... 8
PHY 1102 Applied Science II ..... 3
ENG 1103 Communication Skills I ..... 3
FOURTH QUARTER
ELN 1119 Industrial Electronics ..... 5
ELC 1125 Commercial and Industrial Wiring ..... 8
BUS 1103 Small Business Operations ..... 3
ENG 1104 Communication Skills II ..... 3
Total Credit Hours ..... 76
ELECTRICAL INSTALLATION AND MAINTENANCE (V-018) CERTIFICATE PROGRAMS
Specialization in Residential Wiring
Course Title
Qtr. Hrs. Credit
ELC 112 Electrical Fundamentals I ..... 6
ELC 1115 Electrical Mathematics. ..... 5
DFT 1110 Blueprint Reading: Building Trades ..... 2
DFT 1113 Blueprint Reading: Electrical ..... I
ELC 1124 Residential Wiring ..... 8
Total Credit Hours Required for Certificate ..... 22
CERTIFICATE PROGRAM
Specialization in Commercial \& Industrial Wiring
Course Title Qtr. Hrs. Credit
ELC 112 Electrical Fundamentals I ..... 6
ELC 1115 Electrical Mathematics ..... 5
DFT 1110 Blueprint Reading: Building Trades ..... 2
DFT 1113 Blueprint Reading: Electrical ..... l
ELC 1124 Residential Wiring ..... 8
ELC 1125 Commercial \& Industrial Wiring ..... 8
Total Credit Hours Required for Certificate ..... 30
Specialization in Motors and Controls
Course Title Qtr. Hrs. Credit
ELC 112 Electrical Fundamentals I ..... 6
ELC 113 Electrical Fundamentals II ..... 6
ELC 1103 AC and DC Machines ..... 6
ELC 1104 AC and DC Machine Controls ..... 6
Total Credit Hours Required for Certificate ..... 24

## GENERAL VOCATIONAL CURRICULUM CORE (V201)

Certificate
General Vocational Curriculum Core is designed as a career mobility program for vocational students to acquire the general education and related courses in subject areas such as humanities, communications, social sciences; general computer studies; general graphics (drafting); and theoretical and applied sciences such as biology, chemistry, physics, and mathematics that are foundation courses to specific curriculums in the vocational field. After completion of this certificate curriculum, the student has job skills for occupations requiring communication skills and/or science and mathematics. The student may take this curriculum prior to enrolling in a specific vocational curriculum as an intended objective component of that vocational curriculum. Students may also take this program for transfer to a vocational curriculum at another community college system institution either prior to or concurrently with enrollment at the institution at which they intend to pursue or are pursuing a vocational curriculum diploma.
Course Title Qtr. Hrs. Credit
RELATED COURSES
DFT 1110 Blueprint Reading: Building Trades ..... 2
DFT 1118 Pattern Development \& Sketching ..... 2
EGR 1101 Basic Computer for Automotive Servicing ..... 2
ELC 1115 Electrical Mathematics ..... 5
MAT 1101 Trade Mathematics I ..... 3
MAT 1102 Trade Mathematics II ..... 3
MAT 1104 Basic Mathematics ..... 3
PHY 1101 Applied Science I ..... 3
PHY 1102 Applied Science II ..... 3
Choose 21 hours from above
GENERAL EDUCATION
ENG 1103 Communication Skills ..... 3
PSY 1101 Human Relations ..... 3
ENG 1104 Communication Skills II ..... 3
Choose 6 hours from above
Total Credit Hours ..... 27

## INDUSTRIAL ELECTRONICS (V-045) DIPLOMA PROGRAM

This program is designed to prepare individuals to repair and maintain electronic machines, controls, and components which are used by various industrial operations. Individuals in the program learn to read blueprints, to determine repair procedures, to dismantle and assemble electronic components and to make necessary sensitive adjustments to meet specifications. A large portion of the laboratory time is spent verifying electronic principles and developing service techniques.

The graduate of this curriculum is prepared to maintain and service industrial electronic devices found in most manufacturing and service operations.
Course Title Qtr. Hrs. Credit
FIRST QUARTER
ELC 112 Electrical Fundamentals I ..... 6
ELC 1103 AC \& DC Machines ..... 6
ELC 1115 Electrical Mathematics. ..... 5
BUS 136 Professional Development. ..... 3
SECOND QUARTER
ELC 113 Electrical Fundamentals II ..... 6
ELC 1104 AC \& DC Machine Controls ..... 6
EDP 158 Introduction to the IBM PC with BasicProgramming............................ 4
PHY 1101 Applied Science I ..... 3
THIRD QUARTER
ELN 121 Electronics I ..... 5
ELN 1108 Switch and Digital Control ..... 6
ENG 1103 Communication Skills I. ..... 3
PHY 1102 Applied Science II ..... 3
FOURTH QUARTER
ELN 1110 Programmable Controls ..... 6
ELN 1119 Industrial Electronics ..... 5
BUS 1103 Small Business Operations ..... 3
ENG 1104 Communication Skills II ..... 3
Total Credit Hours ..... 73
INDUSTRIAL ELECTRONICS (V-045) Certificate Program


## MEDICAL ASSISTING (V-031) DIPLOMA PROGRAM

The Medical Assisting curriculum prepares the graduate to assist the physicians in their offices or other medical settings such as hospitals and clinics, performing those administrative and clinical duties delegated by the physician and in accord with respective state laws governing such actions and activities. The business/administrative duties include scheduling and receiving patients, obtaining patient data, maintaining medical records, typing and medical transcription, computer operations; handling telephone calls, correspondence, reports and manuscripts; assuming responsibility for office care, insurance matters, office accounts, fees and collections; and purchasing and maintaining supplies and equipment. The clinical duties may include preparing patients for examinations, obtaining vital signs, taking medical histories, assisting with examinations and treatments, performing routine laboratory procedures including electrocardiograms, sterilizing instruments and equipment for office procedures, and instructing patients in X-ray and laboratory examinations.

Graduates of programs accredited by The Committee on Allied Health Education and Accreditation (CAHEA) may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting (T-058).

Individuals desiring a career in medical assisting should, if possible, take biology, mathematics, and typing courses prior to entering the program.

| Course Title |  |  | Qtr. Hrs. Credit |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| MED | 1101 | Clinical Procedures I | 4 |
| MED | 1104 | Administrative Procedures I | ..... 4 |
| MED | 1106 | Anatomy \& Physiology I for Medical Assistants | ical |
| ENG | 1102 | Occupational Communications | 3 |
| *BUS | 102 | Typewriting II | 3 |
| PSY | 1101 | Human Relations | 3 |
| SECOND QUARTER |  |  |  |
| MED | 1102 | Clinical Procedures II | 5 |
| MED | 1105 | Administrative Procedures II | 4 |
| MED | 1107 | Anatomy \& Physiology II for Medica Assistants | dical $3$ |
| MED | 1111 | Medical Terminology I | 3 |
| EDP | 151 | Computer Concepts. | 4 |

THIRD QUARTER
MED 1103 Clinical Procedures III ..... 4
MED 1112 Medical Terminology II ..... 3
MED 1114 Medical Ethics and Law ..... 3
MED 1116 Medical Transcription ..... 4
MED 1120 Laboratory Procedures ..... 6
FOURTH QUARTER
MED 1125 Medical Assisting Practicum ..... 12
Total Credit Hours ..... 71
*The student is expected to enter the program with typewriting skills equal to that taught in BUS 101 Typewriting I.

## NURSING ASSISTANT

See Continuing Education OR<br>Human Services Technology HSE 102

## PHLEBOTOMY (V-168) CERTIFICATE PROGRAM

The Phlebotomy technician curriculum prepares the graduates to draw blood specimens from patients for the purpose of testing and analyzing blood. The job involves duties related to the preparation and maintenance of equipment used in obtaining blood specimens, the use of appropriate communication skills when working with patients; the selection of venipuncture sites; the care of blood specimens; and the entry of the testing process into the computer, as well as clerical duties associated with record keeping of the blood tests.
Course Title Qtr. Hrs. CreditFIRST QUARTERMLA 1101 Basic Concepts in Phlebotomy11
SECOND QUARTER
MLA 1102 Phlebotomy Clinical Experience ..... 5
Total Credit Hours ..... 16

## WELDING (V-050) DIPLOMA PROGRAM

The Welding curriculum gives students sound understanding of the principles, methods, techniques and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure to form a permanent bond between intersecting metals.

Welding offers employment in practically any industry; shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shops, job shops and many others.
Course TitleFIRST QUARTER
WLD 1110 Oxyacetylene Welding ..... 4
WLD 1111 Oxyacetylene Cutting ..... 2
BUS 136 Professional Development. ..... 3
MAT 1101 Trade Mathematics I ..... 3
WLD 1114 Gas Metal Arc Welding ..... 4
SECOND QUARTER
WLD 1112 Arc Welding Fundamentals ..... 4
WLD 1113 Arc Welding Techniques ..... 4
MAT 1102 Trade Mathematics II ..... 3
PHY 1101 Applied Science I ..... 3
DFT 1117 Blueprint Reading: Welding ..... 3
WLD 1118 Introduction to Pipe Welding ..... 2
THIRD QUARTERWLD 1116 Fundamentals of Gas Tungsten
Arc Welding ..... 4
WLD 1117 Techniques of Gas Tungsten Arc Welding ..... 4
WLD 1130 Mechanical Testing \& Inspection ..... 2
DFT 1118 Pattern Development and Sketching ..... 2
MEC 101 Machine Processes I ..... 3
ENG 1103 Communication Skills I ..... 3
FOURTH QUARTER
WLD 1122 Commercial \& Industrial Procedures ..... 4
WLD 1123 Commercial \& Industrial Practices ..... 4
WLD 1125 StructuralCertificationPractice ..... 2
WLD 1126 PipeCertification Practice ..... 2
BUS 1103 Small Business Operations ..... 3
ENG 1104 Communication Skills II ..... 3
Total Credit Hours ..... 71

## WELDING (V-050) CERTIFICATE PROGRAM



## COOPERATIVE EDUCATION

The Cooperative Education Program is a planned academic program designed to provide vocational, technical, and college transfer students on-the-job experience off campus as an integral part of their academic program. This employment is related as closely as possible to each student's course of study, individual interests and career objectives. The blend of classroom theory and practical on-the-job training adds a vital "extra dimension" to the learning process.

The major purpose of the Co-op Program is to prepare students for positions that are available in this area. Participating students provide a source of manpower for employers and an avenue to relate to college to the community more effectively.

Employment opportunities with business and industry, government, or educational organizations are arranged for career exploration, career preparation and skills enhancement. This is done by working part-time while pursuing an educational goal, there is no limit to the variety of work locations available to Co-op students. Technical and College Transfer Students may earn a maximum of 8 elective credit hours and Vocational Students may earn a maximum of 4 elective credit hours.

Students enrolled in the following curricula may participate in Cooperative Education with faculty advisor approval:

Technical Programs:<br>Accounting<br>Business Administration<br>Business Computer Programming<br>Criminal Justice<br>Drafting and Design Engineering Technology<br>Electronics Engineering Technology<br>General Office<br>Industrial Management Technology<br>Industrial Maintenance Technology

College Transfer:
Pre-Art
Pre-Business Administration
Pre-Dental
Pre-Engineering
Pre-Law
Pre-Liberal Arts
Pre-Math
Pre-Medical
Pre-Ministerial
Pre-Pharmacy
Pre-Science
Pre-Social Work
Pre-Teaching
Elementary Secondary
Pre-BS Nursing
Pre-Psychology Pre-Health and Physical Education

## CURRICULUM COURSE DESCRIPTIONS



## CURRICULUM COURSE DESCRIPTIONS

Following the course name and number appears a numerical code which should be interpreted as follows: first number indicates the number of credit hours; the second number indicates the number of lecture hours; the third number indicates the number of laboratory hours; and the fourth number indicates the number of shop/clinical practice hours.

## AIR CONDITIONING, HEATING, AND REFRIGERATION


#### Abstract

AHR 101 AIR CONDITIONING AND REFRIGERATION 4 (3-2-0) An introduction to air conditioning and refrigeration theory and to terminology relating to heating and cooling systems. Topics include the basic laws of refrigeration, heat and heat transfer methods, servicing tools and equipment, and tubing and fittings. Shop practice will include operations such as tube bending, flaring, swaging, soldering, and the use of basic test equipment.


## AHR 1101 AUTOMOTIVE AIR CONDITIONING 3 (2-0-3)

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system. Use of testing equipment in diagnosing trouble, conducting efficiency tests and general maintenance work. Prerequisite: PHY 1101.

> AHR 1110 INDUSTRIAL HEATING .............................................. $4(3-0-3)$ This is a basic study of the science of heating through the use of circulating hot water and steam. There will be an introduction to both gas- and oil-fired boilers. The course also covers boiler fittings, feed water accessories, steam accessories, combustion accessories, draft control, water treatment, boiler operation and boiler room safety. Prerequisites: ELC 1104, ELN 1118.

## AHR 1111 AUTOMATIC CONTROLS I <br> 2 (1-0-3)

A step-by-step introduction to the foundation necessary for advanced study in controls. Topics include nature of electricity, rules governing electricity, inductive and capacitive circuits, principles of motor operation, power, transformer principles, relay principles, analyzing control circuits.
AHR 1112 AUTOMATIC CONTROLS II 2 (1-0-3)
The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for troubleshooting of the various electrical services used in air conditioning, heating and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, protective devices and wiring. Prereguisites: AHR 1111, AHR 1121.
AHR 1115 FUNDAMENTALS OF HEATING ............................... 3 (2-2-0)
An introduction to the fundamentals of warm air heat, including oil, gas, and electric forced air systems. Emphasis is placed upon terminology, operating principles, theory, components and materials utilized in installation and servicing. Prerequisite: None.

AHR 1116 SERVICING HEATING SYSTEMS ................................ 4 (2-0-6)
An introduction to the servicing and repair procedures for electric, gas, and oil warm air heating systems. Emphasis is placed on students' hands-on practice in servicing, the analysis of operating malfunctions, and the repair of system components. Students will learn systematic procedures for diagnosing and repairing mechanical and electrical malfunctions. Corequisites: $A H R$ 1115, ELC 111.
AHR 1121 PRINCIPLES OF REFRIGERATION ........................... 6 (3-0-9)
An introduction to the principles of refrigeration. Emphasis is given to terminology, safety, the use and care of tools and equipment, the identification and function of component parts of refrigeration systems, and refrigerant piping practices. Students will have an opportunity to practice working with hand tools, materials, and piping in order to develop basic skills in the installation, service and repair of the refrigeration components of air-conditioning systems. Prerequisite: None, Corequisite: WLD 1111.
AHR 1123 FUNDAMENTALS OF AIR CONDITIONING ........... 3 (2-2-0)
Principles of air-cooled air conditioning systems operation including room cooling units and split and packaged air-to-air systems. Emphasis is placed on terminology, components, and the measuring and control of factors affecting air movement and cleaning, temperature and humidity control. Students will learn how to calculate the cooling comfort needs of a conditioned space; use psychrometric charts to determine equipment performance needs to produce optimum temperature and humidity control; and how manufacturers' performance specifications are utilized to determine air distribution system requirements. Prerequisites: $A H R 1121$.

## AHR 1124 AIR CONDITIONING, HEATING, AND REFRIGERATION SERVICING 4 (2-0-6)

Emphasis is placed on the installation, maintenance, and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Lab work involves burner operation, controls, testing and adjusting of air conditioning and refrigeration equipment, and location and correction of equipment failure. Prerequisites: AHR 1123, AHR 1115.

## AHR 1125 HEAT LOSS AND HEAT GAIN CALCULATIONS .... 3 (3-0-0)

 All-season air conditioning requirements, heat loss and heat gain calculations, heat transfer, and comfort students psychrometrics, humidifiers, electronic air cleaners, and heat pump principles of operation.AHR 1127 AIR CONDITIONING SERVICING 4 (2-0-6)
Installation, routine servicing, problem diagnosis, and repair air-cooled air conditioning systems. Emphasis is placed on the correct methods for locating, assembling, wiring, connecting to duct systems, charging, and system start-up and performance checks. Additional emphasis is placed on systematic problem diagnosis and repair procedures for refrigeration, electrical, and control system malfunctions. Students will learn how to properly install, perform routine service maintenance on, evaluate the cooling performance of, and apply systematic problem diagnosis and repair procedures to room cooling units and split and packaged systems. Prerequisites: $A H R$ 1121, Corequisite: AHR 1123.
AHR 1130 ALL-WEATHER SYSTEMS: CONVENTIONAL ........ 6 (3-0-9) Principles of combination heating and cooling systems including gas-electric, all electric, oil-electric, and other combination systems. Emphasis is placed on proper safety and operational controls, selection and assembly of components, and installation of
a complete all weather system. Students will learn how to construct, test, evaluate the performance of, and adjust all-weather conventional systems. In addition, students will learn how to solve service problems and to modify and/or repair an improperly installed system. Prerequisites: $A H R$ 1115, $A H R$ 1116, $A H R$ 1111, $A H R 1112$.

## AHR 1131 ALL WEATHER SYSTEMS: HEAT PUMP 6 (3-0-9)

Principles of installation, service, and repairing of air-to-air heat pumps. Emphasis is placed on the different refrigeration cycles, selections of the components of a complete system, proper application and installation practices, and service procedures for air-to-air heat pump systems. Students will learn how to properly size and install a complete system, perform routine service procedures, analyze performance, and to apply systematic problem diagnosis and repair procedures. Prerequisites: AHR 1116, AHR 1117, AHR 1121.

## ANTHROPOLOGY

ANT 251 INTRODUCTION TO ANTHROPOLOGY ................. 5 (5-0-0)
The study of mankind and culture includes the biological and cultural history of humans; human variation and adaptation; how today's societies differ in their language, subsistence, marriage and family patterns, kinship, politics, religion, and art; and a review of contemporary American culture.

## ART

ART 150 BASIC DESIGN ............................................................... 3 (0-6-0)
Upon completion of this course, the student will be able to identify and use the principles and elements of design as they relate to the two dimensional surface. Flat pattern development, pictorial composition, dipiction of special illusion, and value analysis will have been studied.
ART 151 DRAWING I
3 (0-6-0)
Upon completion of this course, the student should be able to identify problems and possible graphic solutions of representing visual experience on the two-dimensional surface. The student will have explored a variety of material including pencil, pen and ink, conte, and charcoal and will have employed various techniques with an emphasis upon utilizing these materials and techniques as a means of personal expression.

ART 152 DRAWING II
3 (0-6-0)
Upon completion of this course, the student will have been introduced to the study of perspective and other systemized methods of rendering the illusion of form and space. The student will be able to apply elements of good pictorial composition and will have continued to develop technical competence in the use of variety of material and techniques. Prerequisite: ART 151 or permission of instructor.

## ART 155 INTRODUCTION TO PRINTMAKING <br> 3 (0-6-0)

This course is designed for general college students with little or no experience in the field who wish to enroll in a course of a fairly specialized nature. A wide variety of print media is introduced through a series of lectures, demonstrations, and field trips. Studio work emphasizes relief printing techniques, etching, and silkscreen printing. Prerequisite: ART 151 or permission of instructor.

## ART 156 SERIGRAPHY

Students will demonstrate an understanding of silk screening as a fine art by designing and producing editions of prints which use various techniques such as paper, knifecut, and photopositive stencils with emphasis on layout and color separation.

ART 157 CERAMICS I ................................................................... 3 (0-6-0)
Upon completion of this course, the student should be able to ( 1 ) design and produce projects by the pinch pot, coil, slab, and potter's wheel methods; (2) utilize various glaze techniques.

ART 158 CERAMICS II .................................................................. 3 (0-6-0)
Upon completion of this course, the student should be able to ( 1 ) design and produce ceramic projects building on the foundation of skills acquired in Ceramics I, (2) construct one major sculpture project which will combine at least one additional material with the clay, (3) keep an individual test tile record of glaze experiments. Prerequisite: ART 157 or permission of instructor.

ART 159 CERAMICS III ................................................................. 3 (0-6-0)
Upon completion of this course, the student should be able to ( 1 ) design and produce projects building on the foundation of skills acquired in Ceramics I and II; (2) weigh, mix, and apply glaze formulas to ceramics projects; (3) describe how to load, fire, and unload electric kiln. Prerequisite: ART 157 or permission of instructor.

ART 160 WATERCOLOR I ............................................................ 3 (0-6-0)
Through exercises in technical methods and various approaches to idea generation, the student will be able to produce watercolor paintings which demonstrate a mastery of this medium.

ART 161 WATERCOLOR II 3 (0-6-0)
This course is designed to allow further experience and research in the medium of watercolor. Exercises in composition, expression, and color theory will be explored as well as intensive practice in directional interests in content and subject matter. Prerequisite: ART 160 or permission of instructor.

ART 162 WATERCOLOR III
3 (0-6-0)
An advanced studio course to further refine the student's skill with the particular medium. Nature studies and paintings from imagination will be considered as the main areas of concentration. Ideas concerning product, presentation and exhibition will be explored. Prerequisite: ART 161 or permission of instructor.

ART 180 ART APPRECIATION ................................................... 5 (5-0-0)
A survey of ideas and stylistic trends from cave painting to modern times. Painting, sculpture and architecture of each major period will be discussed. The course is designed to meet state requirements for public school teachers and is open to the general college student.
ART 182 INTRODUCTION TO ART (AESTHETICS) ............... 5 (5-0-0)
This is an art/humanities elective course dealing with philosophics of meaning in historical and contemporary art forms. The relationships between information and illumination and between intellect and imagination will be discussed in a seminar manner. Students will be responsible for researching and presenting information and participating in class discussions.

Upon completion of this course, the student will be able to select tools and materials for painting and will be able to demonstrate a knowledge of the elements of art and the principles of design as they apply to the production of painting.
ART 257 PAINTING II ..... 3 (0-6-0)The student will continue the analysis and production of good pictorial compositionand will continue experimentation in a variety of painting media. Prerequisite: $A R T$256 or permission of instructor.
ART 258 PAINTING III ..... 3 (0-6-0)The student will give special attention to painting as a means of personal expressionand will continue to identify and solve the problems of pictorial production such ascolor, form, and special illusion. The student will continue technical experimentation.Prerequisite: ART 257 or permission of instructor.
ART 259 SCULPTURE I ..... 3 (0-6-0)In this course the student will experiment with a variety of materials by utilizing theconstructive, the additive, and the subtractive processes of sculpture.
ART 260 SCULPTURE II ..... 3 (0-6-0)The student will continue to experiment with a variety of materials and methods ofsculpture. There will be an emphasis on carving in wood and stone. Prerequisite: $A R T$259 or permission of instructor.
ART 261 SCULPTURE III ..... 3 (0-6-0)Sculpture III is an advanced studio course designed with the student in mind. Em-phasis is on media, tools, process or on concept gained from experience and research.Statement or expressive quality of sculpture will be expressed. Prerequisite: $A R T 260$or permission of instructor.
ART 280 ANCIENT ART HISTORY ..... 5 (5-0-0)An in-depth study of the evolution of art with specific emphasis on the art of AncientEgypt and Ancient Greece. Painting, sculpture and architecture are discussed. Opento general college student.
ART 281 RENAISSANCE ART HISTORY ..... 5 (5-0-0)An in-depth study of the evolution of 15 th and 16 th Century art with emphasis onthe art from Giette to Michaelangelo. Painting, sculpture and architecture are dis-cussed.
ART 282 MODERN ART HISTORY ..... 5 (5-0-0)An in-depth study of the evolution of Modern Art with emphasis on the period fromJ. O. David to Andy Warhol. Painting, sculpture and architecture are discussed.
ART 283 COLOR THEORY ..... 3 (0-6-0)The student will continue the analysis and implementation of the principles andelements of design with an emphasis upon color theory.
ART 285 INDEPENDENT STUDIO ..... 3 (0-6-0)A course designed to permit the student to work beyond the limits of the regularsequence of courses in a particular area of art. As the course title indicates, the studentwill be working independently on self-determined objectives utilizing the resourcesof the Art Department. One independent studio may be taken per area. Prerequisite:Completed sequence of art courses in the area of proposed independent study.

ART 286 INDEPENDENT STUDIO
A course designed to permit the student to work beyond the limits of the regular sequence of courses in a particular area of art. As the course title indicates, the student will be working independently on self-determined objectives utilizing the resources of the Art Department. One independent studio may be taken per area. Prerequisite: Completed sequence of art courses in the area of proposed independent study.
ART 287 INDEPENDENT STUDIO 3 (0-6-0)
A course designed to permit the student to work beyond the limits of the regular sequence of courses in a particular area of art. As the course title indicates, the student will be working independently on self-determined objectives utilizing the resources of the Art Department. One independent studio may be taken per area. Prerequisite: Completed sequence of art courses in the area of proposed independent study.

## ART 288 SPECIAL TOPICS

A special course designed to teach varying areas in the field of art. Special topics to be covered will be announced prior to each offering in the quarterly schedule of classes. Courses offered upon demand and availability of instructor. Prerequisite: Departmental consent.

## AUTOMOTIVE MECHANICS

## PME 151 AUTOMOTIVE FUNDAMENTALS FOR CONSUMERS

3 (3-0-0)
This course is designed to help you prolong the life of your automobile. The topics discussed include the following: the engine and companion systems, preventive maintenance, basic tune-up instructions, and trouble-shooting.
PME 1101 INTERNAL COMBUSTION ENGINES ....................... 4 (2-0-6)
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of diagnosing and repairing. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams.
PME 1102 ENGINE IGNITION AND FUEL SYSTEMS
4 (2-0-6)
A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system. Interpretation and reading of schematic prints and diagrams. Making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Prerequisite: PME 1101 or permission of instructor.

> PME 1110 EMISSION CONTROL SYSTEMS .................................... 2 (1-0-3) A study of operating principles which apply to control systems currently in use and emission control systems that effectively reduce the volume of air pollutants.

PME 1113 BRAKE SYSTEMS ........................................................... 2 (1-0-3)
A study of the principle of operation of modern drum and disc braking systems. Diagnosis, component replacement and total system overhaul are included.

PME 1120 AUTOMOTIVE ELECTRICAL SYSTEMS 2 (1-0-3)
The course will cover diagrams, sketches, charts, wiring codes, and symbols for automobiles. Analysis charts will be studied to troubleshoot electrical problems with wiring, and electronic devices on new model automobiles.

## PME 1121 FRONT SUSPENSION, ALIGNMENT, AND POWER STEERING <br> 2 (1-0-3)

Theory of operation, correct disassembly and mounting of all front suspension parts on various types of frames (car and light truck). A thorough understanding of the function and repair of stecring gears (Power and standard), shock absorbers, springs, wheels and tires, pumps, rams, etc. is gained. Theory and application of steering geometry, correct diagnosis of problems and use of the alignment and balancing machines; analysis and correction of tire wearing problems, vibrations, hard steering, pulling, etc. is experienced.

## PME 1124 AUTOMOTIVE POWER TRAIN SYSTEMS <br> 2 (1-0-3) <br> Principles and functions of automotive power train systems: clutches, transmission gears, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing and repair.

PME 1125 AUTOMOTIVE SERVICING ............................................. 4 (2-0-6)
Emphasis is on the shop procedures necessary in "troubleshooting" of automotive systems, provides a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: PME 1102

> PME 1204 AUTO-DIESEL ENGINE SERVICING ......................... $4(2-0-6)$ A study of the auto and light truck diesel engines. Repair and replacement of common service problems pertaining to the engine will be emphasized greatly. Electronic computer controls will be covered that pertain to emission control devices as they become available on vehicles.

PME 1206 ELECTRONIC FUEL INJECTION SYSTEMS ............. 6 (5-0-3)
A study of computer controlled fuel injection as it pertains to automobiles and light
trucks. Several manufacturers' systems will be used as reference material, along with
generic fuel injection trainers, similar to all basic systems. Both gasoline and diesel
systems will be studied. Prevequisite: PME 1120, PME 1110, PME 1102, EGR 1101.
PME 1221 ADVANCED ELECTRICAL SYSTEMS ......................... 2 (1-0-3)
Detailed study in theory and construction of electronic controlled charging and ignition systems. Preerequisite: PME 1120 or permission of instructor.
PME 1224 AUTOMATIC TRANSMISSIONS ................................ 5 (3-0-6)
This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and "trouble-shooting" procedures and repair of various types.

## PME 1232 FRONT END DRIVE TRAIN, STEERING AND ALIGNMENT <br> 2 (1-0-3)

Study of the new front-wheel drive train. Operation and repair of steering and alignment of rack and pinion system will be emphasized. Corequisites: PME 1113, PME 1121.
BASIC LAW ENFORCEMENT
BLE 101 BASIC LAW ENFORCEMENT ..... 26 (16-0-30)
See program description, which is the same as the course description. The coursewill contain 506 contact hours.

## BIOLOGY

BIO 151 GENERAL BIOLOGY I ..... 4 (3-3-0)A study of the basic biological principles included in both animal and plant kingdoms.Emphasis is placed upon live, taxonomy, the cell, cell divisions, cellular metabolism,photosynthesis, nuclein acids, and genetics.
BIO 152 GENERAL BIOLOGY II ..... 4 (3-3-0)A continuation of BIO 151. Included are a survey of the plant kingdom and ecolog-ical studies, including both plants and animals. Prerequisite: BIO 151.
BIO 153 GENERAL BIOLOGY III ..... 4 (3-3-0)
A continuation of general biology. Included are a survey of the animal kingdom and the structure and function of man as one of the animals. Prerequisite: BIO 151.
BIO 251 ANATOMY AND PHYSIOLOGY I ..... 4 (3-2-0)A study of the anatomy and physiology of the human body with integration andhomeostasis as leading factors. Emphasis is on the cell, tissues of the body, integu-mentary system, skeletal system, muscular system, and digestive system. Prerequisite:BIO 151 or equivalent or three high school science courses.
BIO 252 ANATOMY AND PHYSIOLOGY II ..... 4 (3-2-0)A continuation of BIO 251. The systems covered are the circulatory, respiratory,excretory, and reproductive. Prerequisite: BIO 251.
BIO 253 ANATOMY AND PHYSIOLOGY III ..... 4 (3-2-0)
A continuation of BIO 252. The systems covered are the nervous, special senses, endocrine and immunological. Prerequisite: BIO 252.
BIO 255 MICROBIOLOGY ..... 5 (3-4-0)Morphology, physiology, and methods of culture and control of bacteria, viruses,and related micro-organisms. The course includes pathogens and epidemiology ofmicrobial diseases. Prerequisite: BIO 151 or equivalent or three high school science courses.

## BUSINESS

BUS 101 TYPEWRITING I ..... 3 (1-4-0)
Development of basic typewriting skills and principles and their application-with emphasis of speed and accuracy.
BUS 102 TYPEWRITING II ..... 3 (1-4-0)
A continuation of Business 101, with emphasis on outlines, letter styles, and typing from draft copy. Prerequisites: BUS 101 or permission of instructor.
BUS 103 TYPEWRITING III ..... 3 (1-4-0)A continuation of Business 102 which builds on the basic competency in keyboardingand formatting of business forms with emphasis on speed and accuracy. Prerequisite:BUS 102 or permission of the instructor.

## BUS 122 RECORDS MANAGEMENT

 3 (3-0-0)A study of the fundamentals and theory of filing with special emphasis on alphabetic, geographic, subject, numeric, and other filing systems.

BUS 125 OFFICE PROCEDURES I ............................................. 3 (3-0-0)
Efforts will be made to observe and direct students in developing those characteristics and personality traits which are essential in the modern business office. Training in office duties and procedures will be emphasized. Prerequisite: Ability to type or permission of instructor.

BUS 126 OFFICE PROCEDURES II 3 (3-0-0)
A continuation of BUS 125. This course presents a series of integrated office activities which emphasize the administrative aspects of secretarial work. Prerequisite: BUS 125 or permission of instructor.

## BUS 128 BUSINESS MATHEMATICS 4 (3-2-0)

A course designed to cover the mathematical understandings and skills nceded to solve computational problems encountered in business. Instruction on the electronic calculator and its use in business math applications will be included.

BUS 130 PRINCIPLES OF INDUSTRIAL MANAGEMENT .... 5 (5-0-0)
The basic managerial decisions; organizational structure including plant location, building requirements, and internal factory organization and problems of factory operation and control, planning, scheduling, routing factory production, stores control, labor control, purchasing, and cost control. Plant problems are utilized at lab experiments.

BUS 134 PRINCIPLES OF SUPERVISION
3 (3-0-0)
Introduces the basic responsibilities and duties of the supervisor and the relationship to superiors, subordinates and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed.

BUS 136 PROFESSIONAL DEVELOPMENT
3 (3-0-0)
A study of the principles that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems.

BUS 150 BUSINESS LAW I 3 (3-0-0)
A general course designed to acquaint the student with the subject of Business Law and to examine fully the subject of contracts.

BUS 151 BUSINESS LAW II
3 (3-0-0)
A continuation of Business 150. Topics include the sale of goods, commercial paper, insurance, estate planning, court procedures, agency, and employment. Prerequisite: BUS 150 or permission of instructor.

## BUS 152 INTRODUCTION TO BUSINESS

5 (5-0-0)
An introduction to the various areas of business available for concentrated investigation. The business environment, ownership forms, organization, marketing, and the physical factors of the business are examined. Also, personnel, stocks, bonds, insurance, accounting, business statistics, budgets, forecasting, and the legal environment of business are surveyed.

Mastery of the fundamentals of Gregg Shorthand theory and speed building. Prerequisite: Ability to type or permission of instructor.

## BUS 157 SHORTHAND II 4 (3-2-0)

A continuation of the study of Gregg Shorthand theory and development of dictation and transcription skills. Prerequisite: BUS 156 or permission of instructor.

## BUS 158 SHORTHAND III

Development and application of the principles of Gregg Shorthand theory, with emphasis on accuracy and speed. Prerequisite: BUS 157 or permission of instructor.

## BUS 161 ACCOUNTING PRINCIPLES I 4 (3-2-0)

The first quarter of accounting builds the basic foundation for further study. Topics included are the basic accounting structure, journals, ledgers, the completion of the cycle for a service and mercantile enterprise, receivables, payables, inventory methods, deferrals, accruals, practical problems and case studies.
BUS 162 ACCOUNTING PRINCIPLES II
4 (3-2-0)
A continuation of BUS 161. Items covered are plant and intangible assets, internal control, payroll systems, concepts and principles, partnership, corporations, departments, branches, practical problems, and case studies. Prerequisite: BUS 161 or permission of instructor.

BUS 163 ACCOUNTING PRINCIPLES III ................................. 4 (3-2-0)
A continuation of BUS 162. Topics are an introduction to cost accounting, budgetary control, income taxes, management concern for cost and revenue relationships, special analysis, special statements, practical problems and case studies. Prerequisite: BUS 162 or permission of the instructor.
BUS 200 ACCOUNTING ON MICROCOMPUTERS ................. 4 (3-2-0)
A study of the application of General Ledger, Accounts Receivable, Accounts Payable, Payroll and Depreciation Systems on a microcomputer. No prior computer knowledge is required. Prerequisite: BUS 163 or permission of instructor.
BUS 201 ADVANCED TYPEWRITING I .................................... 3 (1-4-0)
An expansion of the development of typewriting principles and skills and their application with emphasis on speed and accuracy. Prevequisite: One year of typewriting or permission of instructor.
BUS 202 ADVANCED TYPEWRITING II ................................... 3 (1-4-0)
Business letter styles, legal papers, tabulation, business and accounting reports, manuscripts, and forms applicable to the business office are emphasized. Prerequisite: BUS 201 or permission of instructor.
BUS 203 ADVANCED TYPEWRITING III
3 (1-4-0)
Development of sustained production of forms used in the business office. Prerequisite: BUS 202 or permission of instructor.
BUS 211 SHORTHAND AND TRANSCRIPTION ..................... 4 (3-2-0)
A review of Gregg Shorthand theory and the principles of English grammar with emphasis on the student's ability to take and transcribe correctly from familiar and unfamiliar dictation at varying rates of speed. Prerequisite: BUS 158 or permission of instructor.

## BUS 215 MACHINE TRANSCRIPTION 4 (3-2-0)

A course designed to develop proficiency in office work which requires the use of transcribing units. The concepts of word processing are taught, and experience on the electronic typewriter is received. Prerequisite: Ability to type 50 words per minute or permission of the instructor.

## BUS 220 BUSINESS COMMUNICATIONS 3 (3-0-0) <br> The study and the composition of business letters and other forms of communication. Prevequisite: Ability to type or permission of instructor.

BUS 223 PRINCIPLES OF SELLING .......................................... 3 (3-0-0)
A study of the fundamentals of effective selling, qualifications and obligations of sales persons.
BUS 224 BUSINESS MANAGEMENT ......................................... 5 (5-0-0)
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, and financing. Clarification of the de-cision-making function versus the operating function. Role of management in business-qualifications and requirements.
BUS 225 PRINCIPLES OF MARKETING
5 (5-0-0)

A survey of the functions and problems involved with getting products moved from
the producer to the consumer.

BUS 228 CONSUMER FINANCE ................................................ 3 (3-0-0)
This course is oriented toward personal financing as opposed to financing the business entity. Topics include budgets, insurance, credit procedures, personal investments, housing, real estate, retirement planning, and estate planning.
BUS 229 BUSINESS FINANCE ...................................................... 3 (3-0-0)
Financing of business units, as individuals, partnerships, corporations, and trusts. Topics include short-term financing, long-term financing, financing federal, state, and local government and the factors affecting supply of funds, monetary and credit policies.

BUS 234 PERSONNEL MANAGEMENT .................................... 3 (3-0-0)
Principles of organization and management of personnel, procurement, placement, testing, performance checking, supervision, remuneration, labor relations, fringe benefits, and security.

BUS 238 BUSINESS INSURANCE ................................................ 5 (5-0-0)
This course is an approach to the study of the principles of risk, risk management, and insuring techniques in the context of the managerial decision-making process. Topics include risk and the nature of insuring devices, life, health, retirement, property, and liability insuring devices; planning and integrating risk treatment programs, and insuring organizations and their functions.

BUS 241 INTERMEDIATE ACCOUNTING I 4 (3-2-0)
A review and expansion of accounting principles which includes, among other aspects, the balance sheet, income and statement, earnings statement, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 163 or permission of instructor.
BUS 242 INTERMEDIATE ACCOUNTING II ..... 4 (3-2-0)Additional study of intermediate accounting with emphasis on current liabilities,investments, plant and equipment, intangibles, and long-term liabilities. Prerequisite:BUS 241.
BUS 243 INTERMEDIATE ACCOUNTING III ..... 4 (3-2-0)
A continuation of BUS 242 which includes study of paid-in capital upon corporate formation and subsequent to corporate formation, all aspects of retained earnings and the retained earnings statement, statements from incomplete records, errors, and financial statement analysis. Prerequisite: BUS 242.
BUS 244 COST ACCOUNTING ..... 4 (3-2-0)
A study of the nature and purposes of cost accounting for direct labor, materials, and overhead; job cost, standard cost and principles and procedures; selling and distribution cost, budgets, and executive use of cost figures. Prerequisite: BUS 163 or permission of instructor.
BUS 246 TAXES ..... 4 (3-2-0)A study of the application of federal and state taxes to various businesses and businessconditions, income taxes, payroll taxes, intangible taxes, capital gain taxes, sales anduse taxes, excise taxes, and inheritance taxes. Prerequisite: BUS 161 or permission ofinstructor.
BUS 248 AUDITING ..... 4 (3-2-0)A study of conducting audits and investigations, setting up accounts based on audits,collecting data on working papers, arranging and systematizing the audit, and writingthe audit report. Emphasis on detailed audits, internal auditing, and internal control.Prerequisite: BUS 163 or permission of instructor.
BUS 1103 SMALL BUSINESS OPERATIONS ..... 3 (3-0-0)An introduction to the business world, problems of small business operation, basicbusiness law, business forms and records, financial problems, ordering and invento-rying, layout of equipment and offices, methods of improving business, and employer-employee relations.

## CHEMISTRY

## CHM 161 GENERAL CHEMISTRY I 4 (3-3-0)

A course designed to introduce a student to the fundamental concepts of chemistry. Topics of study include chemical symbols, formulas, atomic structure, periodic law, chemical bonding, the gaseous state, the kinetic molecular theory and chemical calculations.
CHM 162 GENERAL CHEMISTRY II 4 (3-3-0) A continuation of CHM 161. Emphasis to be placed on the liquid and solid states, solutions, electrolytes, colloids, oxidation-reduction reactions, and chemical equilibrium. Prerequisite: CHM 161.
CHM 163 GENERAL CHEMISTRY III ........................................ 4 (3-3-0)
A continuation of CHM 162. Emphasis to be placed on the study of thermodynamics, electrochemistry, solubility product principle, hydrolysis, with an introduction to nuclear chemistry, biochemistry, and organic chemistry. Laboratory will include semimicro qualitative analysis. Prerequisite: CHM 162.

A course structured to provide an understanding of the scope, aims, and fundamentals of modern chemistry by presenting facts, theories, and principles of the science. The course will serve as the basic chemistry course for student nurses.

## COOPERATIVE EDUCATION

## COE 150 HOW TO GET A JOB SEMINAR <br> 1 (1-0-0)

A career planning and development course designed to help the student make the transition from school to the world of work. The Cooperative Education Program is explained with emphasis on employee responsibilities and employer expectations in a job situation. The student receives instruction in interview techniques and develops a resume.
COE 151 CO-OP WORK EXPERIENCE 1 (0-0-10)
Through the Cooperative Education Program, the student works on a part-time basis in a position related to his or her program of study and for an employer selected and/or approved by the College. Grades will be determined by the evaluations by employers, instructor, and department heads. Student may repeat course for credit. Prerequisite: Full admission to Co-op Program and COE 150.
COE 152 CO-OP WORK EXPERIENCE .................................... 2 (0-0-20)
Through the Cooperative Education Program, the student works on a part-time basis in a position related to his or her program of study and for an employer selected and/or approved by the College. Grades will be determined by the evaluations by employers, instructor, and department heads. Student may repeat course for credit. Prerequisite: Full admission to Co-op Program and COE 150.

COE 251 CO-OP WORK EXPERIENCE
1 (0-0-10)
Through the Cooperative Education Program, the student works on a part-time basis in a position related to his or her program of study and for an employer selected and/or approved by the College. Grades will be determined by the evaluations by employers, instructor, and department heads. Student may repeat course for credit. Prerequisite: Full admission to Co-op Program and COE 150.
COE 252 CO-OP WORK EXPERIENCE .................................... 2 (0-0-20)
Through the Cooperative Education Program, the student works on a part-time basis in a position related to his or her program of study and for an employer selected and/or approved by the College. Grades will be determined by the evaluations by employers, instructor, and department heads. Prerequisite: Full admission to Co-op Program and COE 150.
Cooperative Education is approved for all students; however, VA educational benefits cannot be paid for Cooperative Education courses.

## COSMETOLOGY

COS 1001 SCIENTIFIC STUDY I
10 (5-0-15)
This course is for beginners in Cosmetology. It includes a study of hygiene and good grooming, visual poise, personality development, professional ethics, bacteriology, sterilization and sanitation, draping, shampooing and rinsing, scalp and hair care,
cosmetology law, anatomy, chemistry, nails and disorders of the nail, manicuring, skin and disorders of the skin, scalp and hair.

COS 1011 MANNEQUIN PRACTICE 5 (0-0-17)
A study of finger waving, hair styling and hair shaping. The care and styling of wigs, permanent waving, hair coloring, chemical hair relaxing and chemical blowout, draping, shampooing and rinses, scalp, and hair care, and manicuring.
COS 1002 SCIENTIFIC STUDY II ................................................. 5 (5-0-0)
This course is for advanced students in Cosmetology. It includes a study of hair shaping, finger waving, hairstyling, the care and styling of wigs, permanent waving, hair coloring, chemical hair relaxing and chemical blowout, and thermal hair straightening.

COS 1022 CLINICAL APPLICATIONS I .................................. 10 (0-0-32)
A study of live model performance. The purpose of this course is to develop skills and to understand techniques. Laboratory practice in the areas of professional ethics, sterilization and sanitation, draping, shampooing and rinsing, scalp and hair care, hair shaping, finger waving, hairstyling, the care and styling of wigs, permanent waving, and hair coloring.

COS 1003 SCIENTIFIC STUDY III ................................................ 5 (5-0-0)
The course gives classroom study in thermal waving, curling, and blow-dry styling, theory of massage, facials, facial make-up, false eyelashes, and superfluous hair removal.

COS 1033 CLINICAL APPLICATIONS II ................................. 10 (0-0-32)
A continued study of laboratory practices, chemical hair relaxing and chemical blowout, thermal hair straightening, thermal waving, curling, blow-dry styling, manicuring chemistry, facials, and facial make-up.
COS 1004 SCIENTIFIC STUDY IV .................................................. 5 (5-0-0)
The course gives classroom study in cells, skin, hair, scalp disorders, salon management, and cosmetology law.

COS 1044 CLINICAL APPLICATIONS III ................................ 10 (0-0-32)
A continued study of laboratory practice in permanent waving, hair-styling, hair shaping, sanitation and sterilization.

## CRIMINAL JUSTICE-PROTECTIVE SERVICE TECHNOLOGY

CJC 101 INTRODUCTION TO CRIMINAL JUSTICE ............. 5 (5-0-0)
This course is designed to familiarize the student with a philosophy and history of law enforcement, its legal limitations in our society, the primary duties and responsibilities of the various agencies in the criminal justice field, the basic processes of justices, and evaluation of law enforcement's current position, and an orientation relative to the profession as as career.
CJC 102 CRIMINOLOGY 5 (5-0-0) A general course designed to introduce the student to the causation of crime and delinquency. The historical and contemporary aspects of crime, law enforcement, punishment, and correctional administration will be discussed.

CJC 110 JUVENILE DELINQUENCY 5 (5-0-0)
General survey of juvenile delinquency as an individual and social problem, theories of delinquency, causation, and methods of correction and prevention. The course will present a general overview of the juvenile court.

CJC 112 CRIMINAL LAW
5 (5-0-0)
A course designed to present a basic concept of criminal laws and to provide a legal groundwork for those who seek to enter the Criminal Justice ficld.

CJC 125 CRIMINAL PROCEDURE .......................................... 5 (5-0-0)
This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement.

CJC 202 TRAFFIC ENFORCEMENT 5 (5-0-0)
A study which covers the history of the traffic enforcement problems and gives an overview of the problem as it exists today. Attention will be given to the three E's (enforcement, evaluation, effectiveness) and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness and the allocation of men and materials. Accident investigation is stressed.

CJC 203 CORRECTIONS 3 (3-0-0)
An examination of the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions, probation and aftercare for both the adult and juvenile. This course will provide a history and philosophy in the field of corrections.

CJC 204 PAROLES, PROBATION, AND PARDONS ................ 3 (3-0-0)
Probation as a judicial process and parole as an executive function are examined as community-based correctional programs and the use of pardons is reviewed.

CJC 205 COMMUNITY EVIDENCE ........................................... 5 (5-0-0)
Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

CJC 206 COMMUNITY RELATIONS 3 (3-0-0)
This course will provide the student with an understanding of community structures as they relate to minority groups, peer groups, socioeconomic groups, leader groups, and group relations. Emphasis will be placed on the organization and function of these groups as they relate to the profession of criminal justice-protective service.

CJC 207 CONFINEMENT FACILITIES ADMINISTRATION ..... 3 (3-0-0) This course is designed to familiarize the student with the supervision and administration of confinement facilities for both adult and juvenile, involving techniques of inmate supervision, security, medical care of inmates, food preparation, sanitation, and various legal aspects controlling detention facilities, correctional facilities and jails.

CJC 209 CORRECTION LAW 3 (3-0-0)
This course is designed to familiarize the student with the specific laws as they pertain to correction, care, custody and control.

CJC 210 CRIMINAL INVESTIGATION
5 (4-2-0)
This course introduces the student to fundamentals of investigation; crime scene search; recording, collection, and preservation of evidence; sources of information, interview and interrogation, case preparation, and court presentation.

## CJC 211 CRIMINALISTICS I <br> 5 (4-2-0)

A course designed to introduce the student to the forensic aspects of police science and the crime lab, its function and scope. The student is further introduced to lab equipment generally found in use in a police crime lab. In addition, the course studies physical and chemical properties of certain substances, chemical changes, weights and measurements, and organic analysis and inorganic analysis.

CJC 212 CRIMINALISTICS II 5 (4-2-0)
A continuation of the forensic aspects of police science. The subject matter concentrates on the procedures to be undertaken in the crime lab. Emphasis is placed on fulfilling all legal requirements regarding handling and evaluation of physical evidence. All students participate in a crime scene and the investigation of all evidence pertaining to the crime.

CJC 218 PATROL PROCEDURE ................................................. 3 (3-0-0)
This course defines the purposes of patrols and describes the types of patrols. It explains the operation of police vehicles on patrol, answering calls-emergency and non-emergency and felony in progress. It provides the student the opportunity to develop powers of perception, and observation concerning persons, places, and things. Safe driving techniques and use of equipment are presented.

## CJC 222 CRIMINAL JUSTICE ADMINISTRATION <br> 3 (3-0-0)

This course will be an introduction to the principles of organization and administration. The major objective will be to provide the student with a background for understanding basic administration.

CJC 223 CORRECTIONS COUNSELING .................................. 4 (3-2-0)
This course is designed to provide the student with information pertaining to counseling techniques as they apply to the needs of a correctional officer or counselor. An exploration of the different avenues of rehabilitation will occur.

CJC 230 COUNSELING ............................................................. 3 (3-0-0)
This course is designed to present the basic elements of counseling. The basic clements will be applied to the different socioeconomic groups in our society.

## CJC 234 COMMUNITY-BASED CORRECTION 3 (3-0-0)

Community resources that can be utilized in the correctional process are examined such as vocational rehabilitation, alcohol detoxification and other units, welfare services, child guidance and mental health clinics, employment services, private volunteer, professional assistance, legal aid, and other pertinent services. Adult as well as juvenile programs will be examined.

CJC 240 CONSTITUTIONAL LAW ............................................ 3 (3-0-0)
An in-depth study of selected constitutional law. Emphasis will be placed in the following areas: due process clause of the 14 th Amendment, equal protection clause of the 14 th Amendment, lst Amendment rights and rights of privacy.

A study of the socio-cultural, psychological, and physiological contributions to alcohol and drug addiction. An analysis of the theories of addiction; analysis, philosophies and modalities of treatment including family, individual, and group counseling, vocational rehabilitation, detoxification processes, etc. Analysis of self help treatment philosophies. Study of intervention concepts and strategies; contemporary treatment of addiction.

## CJC 242 ALCOHOL AND DRUG ABUSE PREVENTION ....... 3 (3-0-0)

An analysis of the various issues related to the prevention of alcohol and drug abuse as a community health problem. Critical evaluation of various methods and philosophies of prevention. Includes early and secondary prevention models including employce assistance programs. Barriers to prevention programs will be examined.

## DRAFTING

DFT 101 TECHNICAL DRAFTING I ......................................... 4 (2-0-6)
The field of drafting is introduced as the student studies the basic principles of the graphic language. Skills ae developed in freehand lettering, geometric figure construction, orthographic and pictorial freehand, and instrument drawing of the principle views of objects as they are represented in the graphic language. Principles of size description are also introduced. Prerequisite: None.
DFT 102 TECHNICAL DRAFTING II
4 (2-0-6)
This course includes the application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, and the introduction to sections and conventions. Dimensioning practices for details and working drawings as approved by the American Standards Association are covered. Prerequisite: DFT 101.

## DFT 103 TECHNICAL DRAFTING III

 4 (2-0-6)This course is a study of the various techniques employed to produce and render isometric and oblique drawings and isometric, dimetric, and trimetric projections. An introduction to screw threads and various fasteners is included. Prerequisite: DFT 102.

## DFT 113 ELECTRONIC DRAFTING 4 (1-6-0)

The fundamentals of drafting are presented with an emphasis on applications in the electronics field. Basic skills and techniques are included such as the use of drafting instruments, types of drawings, construction of drawings both with instruments and freehand, lettering and dimensioning, and how to read prints. In addition to basic skills, specialized experience will be included which directly relates to the electronics industry, such as types of drawings common to electronics, special symbols used, schematic diagrams and layout diagrams with an emphasis on printed circuit work.

## DFT 120 AUTOCAD DRAFTING I

4 (2-0-6)
An introduction to computer aided drafting (CAD). Basic keyboarding and computer functions as they pertain to CAD/CAM operations. Hands-on familiarization with MS-DOS functions will be employed by students, preparing them for commands needed in CAD/CAM courses. Prerequisite/Corequisite: DFT 101 or permission of instructor.

A continuation of DFT 120. In this course, the student uses skills to produce more complex two dimensional drawings. The more advanced commands are introduced to increase productivity and enhance the appearance of the drawings. Three dimensional drawings are introduced. Prerequisite: DFT 120.

## DFT 122 AUTOCAD DRAFTING III <br> 4 (2-0-6)

In this course, more advanced practice in three dimensional drawings is implemented. Comparisons and practices on various CAD programs will also be implemented. Speed and accuracy on all CAD programs will be emphasized. Prerequisite: DFT 121.

## DFT 123 CADKEY DRAFTING I 4 (2-0-6)

In this course, the student will be introduced to the basic keyboarding and computer functions of a second Computer Aided Drafting software program. Commands needed to operate this software will be presented through hands-on activitics. Prerequisite/Corequisite: DFT 101 or permission of instructor.

DFT 124 CADKEY DRAFTING II 4 (2-0-6)
This course is a continuation of DFT 123 with emphasis on construction of 3-D drawings and solid modelings in CADKEY. Prerequisite: DFT 123.

DFT 201 TECHNICAL DRAFTING IV ....................................... 4 (2-0-6)
Mathematical, drafting board, and computer-aided-drafting solutions of problems involving the principles of machine elements. Study of motion linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains. Prerequisite: MAT 161, PHY 101, and DFT 103.

DFT 202 TECHNICAL DRAFTING V ........................................ 4 (2-0-6)
Assignment of mechanical design projects requiring use of research; application of basic engineering principles; calculations; and use of various manuals, catalogs, and periodicals. Preliminary design sketches, layout drawings, detail drawings, subassembly drawings, assembly drawings, specifications, patent drawings and simplified drawing practices will be required. Solutions will be by both drafting board and computer-aided-drafting procedures. Prerequisite: DFT 201.

DFT 203 TECHNICAL DRAFTING VI 4 (2-0-6)
Emphasis is placed on tool planning, design and drafting; commercial standards, principles and practices; selection of materials and standard parts; use of catalogs and manuals; and cost estimates. Projects are assigned requiring the design of jigs, fixtures, and gauges by both drafting board and computer-aided-drafting procedures. Prereqwisite: DFT 202.

## DFT 204 DESCRIPTIVE GEOMETRY 4 (2-0-6)

This course consists of a graphic analysis of space problems involving points, lines planes, connectors and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization will be stressed on every problem. Prerequisites: DFT 102, MAT 162.

DFT 1110 BLUEPRINT READING: BUILDING TRADES
2 (1-0-3)
Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.

# DFT 1113 BLUEPRINT READING: ELECTRICAL 1 (0-0-3) Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course. Prerequisite: DFT 1110 or DFT 1104 or permission of instructor. <br> DFT 1117 BLUEPRINT READING: WELDING 3 (3-0-0) <br> A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications. <br> DFT 1118 PATTERN DEVELOPMENT AND SKETCHING 2 (1-0-3) Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects, jigs and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prereguisite: DFT 1117. 

## ECONOMICS

ECO 232 LABOR ECONOMICS AND LABOR RELATIONS ... 5 (5-0-0)
Emphasis is placed on the history of the labor movement in the United States; the development of methods and strategies by labor organizations and by management; the shift in the means of public control; and the factors of income and economic security.
ECO 251 MACROECONOMICS .................................................... 5 (5-0-0)
The economic analysis of the economy as a whole. It includes such areas of study as total employment, total production, the business cycle, the general price level, and measures used to stabilize the level of business activity.
ECO 252 MICROECONOMICS ..................................................... 5 (5-0-0)
The economic analysis of the problems of individuals, firms, and industries. It includes such areas as price determination, forces of supply and demand, competition, monopoly, and profit maximization. Prerequisite: ECO 251 or permission of the instructor.

## EDUCATION

EDU 095 COLLEGE SUCCESS SKILLS 2 (2-0-0)
The course stresses such topics as goal setting, self motivation, study skills and habits, time management, and other skills needed to be a successful college student. This course is required during the first quarter for all degree seeking students who test into one or more College Preparatory courses. It is open to any student who wishes to gain the skills taught in the course. This course does not count for graduation.

## ELECTRICITY

ELC 111 INTRODUCTION TO ELECTRICITY ......................... 4 (3-2-0)
Principles of electricity are covered along with electrical equipment commonly used in industrial situations. Study includes resistance networks, AC/DC meters, and AC/ DC applications circuits.

ELC 112 ELECTRICAL FUNDAMENTALS I 6 (4-4-0)
A qualitative study of units of measurement, electrical quantities, simple circuits, electromotive forces, current power, laws, basic electrical instruments and measurements, resistance, impedance and basic circuit components. Concepts taught are generally limited to fundamentals with very little emphasis placed on quantitative aspects. Laboratory work will teach the proper use and care of basic hand tools and the basic manual skills used in working with electricity. Measurement techniques and safety practices will be stressed throughout.

## ELC 113 ELECTRICAL FUNDAMENTALS II

 6 (4-4-0)A continuation of ELC 112. Introduction to magnetism, alternating current theory, sine wave analysis, inductance, capacitance, reactance, phase relationships, power and transformers. Prerequisite: ELC 112.

## ELC 222 SOLID STATE CONTROLS <br> 4 (3-3-0)

Introduction to static switching circuits and controls. Boolean algebra, static switching applications involving logic components, and design of control circuits. Dynamic controls involving solid state devices such as the transistor, integrated circuit, and digital readout. Minicomputers and their relationship to the control of machines and manufacturing processes will be studied.

## ELC 1103 AC \& DC MACHINES 6 (4-4-0)

Provide fundamental concepts in single and polyphase alternating current, direct current, circuits, voltages, power measurements, transformers and motors. Instructions in the use of electric test instruments in circuit analysis. Prerequisite: ELC 112, ELC 113 or permission of instructor.

## ELC 1104 AC \& DC MACHINE CONTROLS <br> 6 (4-4-0)

An introduction to the types of controls used in AC \& DC machines such as timers, relays, limit switches, push buttons, magnetic starters, sequencing switching, and the use of test instruments. Prerequisite: ELC 112, 113 or permission of instructor.

## ELC 1115 ELECTRICAL MATHEMATICS 5 (5-0-0)

An introductory algebra course with vectors needed in alternating current. Algebraic operations of addition, subtraction, multiplication, and division; use of letters and signs, grouping, factoring, exponents, ratios, algebraic and graphic solutions of equations, introduction to graphs, right triangles and vectors.

ELC 1124 RESIDENTIAL WIRING .............................................. 8 (6-0-6)
Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups.

ELC 1125 COMMERCIAL AND INDUSTRIAL WIRING ........... 8 (6-0-6)
Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisite: ELC 1124 or permission of instructor.

## ELECTRONIC DATA PROCESSING

## EDP 103 <br> UTILITIES 3 (3-0-0)

An introduction to computer operational software. The student will be familiarized with the basic components and procedures of using an interactive system. File Creation and file copy will be given major emphasis. Prerequisite: EDP 151, EDP 107. Corequisite: EDP 108.
EDP 107 AS 400 RPG
5 (4-2-0)
An introduction to RPG programming. The student will obtain experience in the use of the RPG computer language for coding business computer applications. Prerequisite: EDP 151, or permission of the instructor.

## EDP 108 ADVANCED AS 400 RPG II <br> 5 (4-2-0) <br> A continuation of EDP 107 which includes an intensive study in coding and programming of the RPG computer language. Prerequisite: EDP 107 or permission of instructor.

EDP 130 IBM PC DOS .................................................................. 1 (1-0-0)
This course is an introduction to the IBM PC and its operation. The student will prepare disks for use, copy files, and perform everyday operations with the most frequently used functions of the personal computer.

## EDP 131 KEYBOARDING ON THE IBM PC .............................. 1 (1-0-0)

This course is a basic introduction to the alpha-numeric keyboard and a 10 -key numeric pad, with emphasis on the tough system for the numeric keypad. Special keys which are unique to the IBM PC will also be discussed.
EDP 151 COMPUTER CONCEPTS .............................................. 4 (3-2-0)
Computer concepts is an introductory class for students who wish to have a brief yet substantive class in the world of computers with emphasis on the personal computer. The course provides a lecture format about computers, and lecture with hands on use of personal computer software - MS-DOS, Windows, Wordperfect, Word for Windows, Lotus, EXCEL, and DBASE. Prerequisite: Keyboarding ability of 30 words per minute is desired but not required.

EDP 158 QUICKBASIC PROGRAMMING ................................. 4 (3-2-0) This course introduces the student to QBASIC (QUICK BASIC LANGUAGE). Students learn techniques needed to develop, code and execute programs. Each student will enter, document, and evaluate programs within assigned due dates. Prerequisite: Typing ability of 30 wpm .
EDP 160 ADVANCED BASIC ......................................................... 3 (2-2-0)
A continuation of the BASIC language concepts learned in EDP 155 or EDP 158, using advanced concepts through color and file processing. Additional techniques will be stressed. Prerequisite: EDP 151, EDP 158, or permission of instructor.
EDP 161 WORDPROCESSING USING WORD PERFECT ...... 3 (3-0-0)
This course is a hands on course using word perfect (windows) software for students who are using word processing on the personal computer for the first time. Hands on operational concepts of using a word processing package will be introduced. (Document creation, changes, deletion, saving and printing). Prerequisite/Corequisite: EDP 151 and keyboarding ability of 30 wpm or permission of instructor.

EDP 162 SPREADSHEET PROCESSING USING LOTUS ........3(3-0-0)
This course is a hands on course using Lotus (windows) software for students who are using spreadsheets on the personal computer for the first time. Hands on operational concepts of using a spreadsheet package will be introduced. The student will also cover changes to a spreadsheet, saving, deletion and printing of the spreadsheet. Graphics creation and printing will also be covered. Prerequisite: EDP 151 and keyboarding ability of 30 wpm or permission of instructor.

## EDP 163 DATABASE PROCESSING USING DBASE <br> 3 (3-0-0)

This course is a hands-on course for students who are using a database on the personal computer for the first time. Hands-on operational concepts of using a database package will be introduced. The creation of a database, making additions to a database, deletion, saving and report creation will be covered. Prerequisite: EDP 151 and keyboarding ability of 30 WPM or permission of instructor.

> EDP 164 DESKTOP PUBLISHING USING PAGEMAKER ....... 3 (3-0-0) This course is a hands-on course for students who are using a desktop publishing software package on the personal computer for the first time. Operational concepts of basic layout and graphic design techniques, printing terminology, typography, composition, article placement, and effective styles will be covered. Prerequisite: Typing ability of 30 words per minute or pernission of the instructor.

## EDP 171 WORD PROCESSING USING WORD FOR WINDOWS

3 (3-0-0)
This course is a hands on course using Word for Windows software for students who are using a word processing on the personal computer for the first time. Hands on operational concepts of using a word processing application package will be introduced. (Document, creation, changes, deletion, saving and printing) Prerequisite: EDP 151 or permission of instructor. Keyboarding ability of 30 words per minute.

## EDP 172 SPREADSHEET PROCESSING USING EXCEL FOR WINDOWS

This course is a hands on course using Excel for Windows software for students who are using spreadsheets on the personal computer for the first time. Hands on operational concepts of using a spreadsheet package will be introduced. The student will also cover changes to a spreadsheet, saving, deletion and printing on the spreadsheet. Graphics creation and printing will also be covered. Prerequisite: EDP 151 and keyboarding ability of 30 wpm or permission of instructor.

## EDP 203 SYSTEMS ANALYSIS \& DESIGN <br> 3 (3-0-0)

A course in business systems analysis and design covering its scope, methods, and type of investigation, feasibility study, justifications for design of input, design of output, and storage of files. Prerequisites: EDP 107. Corequisite: EDP 207 or permission of instructor.

EDP 207 COBOL ........................................................................... 5 (4-2-0)
This course is intended to introduce the student to programming computers for commercial and business applications using the COBOL language. The student will obtain experience in solving practical problems using this language. Prerequisites: EDP 103 and EDP 108 or permission of instructor.

A continuation of EDP 207 which includes an intensive study in coding and programming complex business applications using the COBOL language. Prerequisites: EDP 207 or permission of instructor.

## EDP 210 FINAL PROJECT <br> 5 (2-6-0)

The student will select and design a computerized system and its resulting computer program utilizing the RPG or COBOL languages. Prerequisites: EDP 108, EDP 203, EDP 208 or permission of instructor.

## ELECTRONICS

ELN 121 ELECTRONICS I ........................................................... 5 (3-4-0)
A study of semiconductor fundamentals to include theory of operation and electrical characteristics of numerous semiconductor devices. Specific devices will include semiconductor signal and power diodes, zener diodes, tunnel diodes, varactor diodes, bipolar transistors, field effect transistors, thyristors, integrated circuits and optoelectronic devices. Prerequisite: ELC 112.

ELN 122 ELECTRONICS II 7 (4-6-0)
A continuation of Electronics I with special emphasis on the construction of amplifier circuits, circuit configurations, electrical characteristics and amplifier design procedure. Specific types of circuits will include: basic amplifiers, operational amplifiers, power supplies, oscillators, pulse circuits and modulation systems. Prerequisite: ELN 121.

## ELN 123 ELECTRONICS III

 6 (4-4-0)A continuation of Electronics II centering around the operational amplifier and its many uses. Circuits to be studied include intergrators, differentiators, precision rectifiers, and Schmidt Triggers. Prerequisite: ELN 122 or permission of instructor.

## ELN 125 INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS <br> 4 (3-2-0)

This course is designed to introduce the student to programmable logic controllers and their applications. Topics to be covered include: input and output modules and devices, power supplies, installation of PLC's and interfacing of equipment.

## ELN 202 ELECTRONIC COMMUNICATIONS SYSTEMS ....... 7 (5-4-0)

A study of electronic communications systems to include: AM SSB, and FM transmitters and receivers. Specific areas of study will include: amplitude modulation techniques, frequency modulation, antennas, communications test equipment, and broadcast station requirements. Prerequisite: ELN 122.
ELN 203 MICROPROCESSORS ................................................. 7 (4-6-0)
A study of microprocessors and microcomputers. Topics covered include: microcomputer basics, number systems and codes, computer arithmetic, introduction to programming, operation of microprocessors, and interfacing techniques. Prerequisite: ELN 219.

## ELN 208 INDUSTRIAL ELECTRONICS

 6 (5-2-0)A study of industrial electrical control systems to include starting, stopping, reversing, and speed control for electrical motors. Industrial electronic switching components to include SCR'S, UJT'S, diacs, relays, and gate controlled circuitry will be covered. Also, transducers to include photocells, temperature sensing devices, pressure gauges,
etc. Open and closed loop systems will be considered as well as numerical control. Prerequisite: ELN 122.

## ELN 219 DIGITAL FUNDAMENTALS 5 (3-4-0)

Emphasizes the study of combinational and sequential logic circuits using discrete and integrated components. Topics include: binary arithmetic, numbering systems, Boolean algebra, storing, timing, gating, and counting. Typical applications in industry will be presented.

## ELN 220 ELECTRONIC SYSTEMS 6 (4-4-0)

 The course consists of a functional block diagram analysis of a number of digital computer systems. Emphasis is placed on the mini-micro computer variety currently being used in industry. The lab will provide practice in manipulating the hardware and software associated with such computers. Prerequisite: ELN 203
## ELN 229 DIGITAL CIRCUITS

6 (4-4-0)
A continuing study of complete logic circuits with an introduction to the principles on which microprocessors are based. The course will emphasize counters, registers, memory, tristate logic, and bus structures (serial and parallel architecture.) Prereguisites: ELN 219 or permission of instructor.

## ELN 246 ELECTRONICS DESIGN PROJECT

A laboratory class emphasizing independent research and design work by the student. The student will select a project in consultation with the instructor; perform the required research; compile data, formulate a theoretical model; and construct, test, and evaluate a working model of the selected project. Preerequisite: ELN 203.
ELN 1108 SWITCH AND DIGITAL CONTROL 6 (4-4-0)
This course will include an introduction to the use of semiconductory switching as a basic decision-making tool in the control of industrial machinery. Methods for combining simple switches to perform complex logical control functions will be explored.
ELN 1110 PROGRAMMABLE CONTROLS 6 (4-4-0)
This course will explore the rapidly developing technology of microprocessor-based programmable controllers and their use in automated industrial settings. Design and development of programs to perform specific control functions will be studied as well as special techniques for troubleshooting in systems under programmable control.

## ELN 1119 INDUSTRIAL ELECTRONICS

 5 (3-4-0)Basic industrial electronic systems such as motor controls, magnetic amplifier controls, welding control systems using thyratron tubes and other basic types of systems commonly found in most industries. Prevequisite: ELN 1108 or permission of instructor.

## ENGINEERING

EGR 151 ENGINEERING DRAWING
4 (2-0-6)
The field of drafting is introduced as the student begins the study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills \& techniques of drafting are included and use of drafting equipment, lettering, freehand orthographic instrument drawing of principal views \& standards and practices of dimensioning. The principles of isometric, oblique, perspective are introduced.

## EGR 1101 BASIC COMPUTERS FOR AUTOMOTIVE SERVICING

A study and hands-on familiarization of computers needed by the auto servicing community. Keyboarding and MS-DOS will be incorporated as it pertains to computer controlled test equipment and digital code readers. Shop inventory and reports will be kept on computer by students.

## ENGLISH

## ENG 090 ENGLISH SKILLS 3 (1-4-0) <br> This course is an individual course for students who need to develop a foundation in grammar rules and usage. Institutional credit only.

## ENG 098 DEVELOPMENTAL ENGLISH

 4 (3-2-0)Designed for students who need a review of basic grammar skills before entering English 099. Institutional credit only.

## ENG 099 COMPOSITIONAL SKILLS

4 (3-2-0)
The course is designed to provide students with the essential techniques for writing in the traditional rhetorical modes required in college level English courses. It emphasizes paragraph and essay structures, strategies for developmental support, grammar, vocabulary, spelling, and sentence structure. Institution credit only.

ENG 106 TECHNICAL WRITING 4 (3-2-0)
A course in technical writing designed to introduce the students to compositions and reports found in the business world. Emphasis on group interaction in completing a required assignment, the various format styles of written reports, and graphics. Prerequisite: ENG 155.

## ENG 155 COMPOSITION I <br> 5 (5-0-0)

A course in expository writing designed to improve students' skills in planning, composing, editing and proofreading. Emphasis on paragraph patterns, expository essays, and the research paper. Study of library skills, grammar and the use of word processing in the writing process.

## ENG 156 COMPOSITION II

 5 (5-0-0)A continuation of English 155. A study of poetry, drama, and short fiction. Literary essays using both primary sources and library research. Prerequisite: ENG 155.

ENG 250 ORAL COMMUNICATION 3 (3-0-0)
English 250 allows students an opportunity to gain confidence and improve their oral communication skills by participating in a variety of public speaking situations. Topics include non-verbal communication, active listening, audience analysis, and effective visual aids. Particular attention will be given to speeches that inform and persuade.

## ENG 262 BRITISH LITERATURE

English 262 introduces and surveys British literature written before 1800 , and provides backgrounds in the culture and society of the Middle Ages, Renaissance, and the Age of Reason. Prerequisite: ENG 156.

## ENG 263

MASTERPIECES OF WORLD LITERATURE I 5 (5-0-0)
English 263 introduces and surveys the origins of literature in Greek, Hebrew, Eastern, and Latin cultures, with comparative focus on mythical and religious textuality. Selections will be read in English translation. Prerequisite: ENG 156.

## ENG 264 MASTERPIECES OF WORLD LITERATURE II ....... 5 (5-0-0)

English 264 introduces and surveys Medieval, Renaissance, and Modern European literature, with emphasis on the impact of social, religious, scientific, and philosophical change. Selections in translation. Prerequisite: ENG 156.

ENG 266 MASTERPIECES OF MODERN FICTION .................. 5 (5-0-0)
English 266 introduces and surveys the development of the short novel from the late nineteenth century to the present. Prerequisite: ENG 156.

ENG 265 ENGLISH LITERATURE .............................................. 5 (5-0-0)
A survey of selected 19th and 20 th century British authors with collateral readings from each period studied. Prerequisite: ENG 156.

## ENG 274 CREATIVE WRITING .................................................... 5 (5-0-0)

English 274 introduces students to the fundamentals of writing poetry and fiction, assuming little or no previous creative writing experience: but demanding and underscoring the same grammatical, organizational, and critical proficiency taught in prerequisites ENG 155 and ENG 156.

ENG 275 AMERICAN LITERATURE I ........................................ 5 (5-0-0)
Introduces and surveys American literature from its seventeenth century origins through the height of the American Romantic movement, and provides background in the cultural and political issues which have come to define American society. Prerequisite: ENG 156.

## ENG 276 AMERICAN LITERATURE II

Introduces and surveys American literature from the beginning of the nineteenth century realism through modernism to comtemporary-post-modern-literature, and provides background in the relevant cultural and political issues which define recent and contemporary American society. Prerequisites: ENG 156.

ENG 280 SELECTED TOPICS IN LITERATURE ...................... 5 (5-0-0)
English 280 will focus on special topics in Literature determined and tailored by departmental interest and need, concentrating, for example, on a particular author(s), genre(s), period(s), school(s), or any combination thereof. It may be repeated for credit when the content does not duplicate. Prerequisites: ENG 155 and ENG 156.

ENG 1102 OCCUPATIONAL COMMUNICATIONS
3 (3-0-0)
This course is designed for students enrolled in vocational programs which require only one college-level English course. Course content includes the following: a review of basic grammar, mechanics, and sentence structure; program specific vocabulary study; job-related communication situations; the job search process; application and interview follow-up letters; resumes; and interview procedures. Prerequisite: If a student's program of study requires English placement testing, then to enter ENG 1102, the student must achieve the 15th or greater percentile or complete ENG 090 and/or ENG 098.

An entry-level course for vocational students designed to prepare the students to engage in effective oral communication, write acceptable business correspondence, and to read with understanding vocabulary in their field. Emphasis on writing paragraphs, business letters, identifying, interpreting, and applying business information. Prereguisites: Reading 094, English 098, or a passing score on the College's placement test.


#### Abstract

ENG 1104 COMMUNICATION SKILLS II 3 (3-0-0) A continuation of English 1103. In-depth work with job-search and job-seeking forms. A critical look at and practice with communication trends and principles in business communication. Prerequisite: successful completion of English 1103


## FRENCH


#### Abstract

FRE 151 ELEMENTARY FRENCH I 5 (5-0-0) A beginning course for students who have never studied French. Much oral work, drill in grammatical principles, written composition, conversation, dictation, and pronunciation are stressed. French 151 and 152 are equivalent to two years of high school French. Senior colleges which require two years of a foreign language for admission normally accept these two courses for entrance credit or for six semester hours elective credit.


FRE 152 ELEMENTARY FRENCH II ..... 5 (5-0-0)
A continuation of FRE 151. Prerequisite: One year of high school French or FRE 151.
FRE 251 INTERMEDIATE FRENCH I ..... 5 (5-0-0)
A review of grammatical and linguistics principles covered through the 152 -level course and a study of more advanced grammar and composition and of cultural and literary reading selections.
FRE 252 INTERMEDIATE FRENCH II ..... 5 (5-0-0)
A continuation of FRE 251, with an emphasis placed on analyzing and translating literary genres of several important writers of the French speaking world.

## GEOGRAPHY

GEO 261 PHYSICAL GEOGRAPHY ............................................. 5 (5-0-0)
The earth's astronomical relations, factors of weather and climate, and physical features.

| GEO 262 | WORLD REGIONS AND ECONOMIC |
| :---: | :---: |
|  | GEOGRAPHY |
| Relation graphic of the $m$ | f human activities to the larger geographic ors involved in production, distribution, cons $r$ crops, minerals and industries of the world |

## HEALTH EDUCATION

HEA 251 FIRST AID AND SAFETY ............................................. 3 (3-0-0)
Principles and practices of basic first responder emergency care with certification in standard first aid and CPR.

## HEA 252 PERSONAL HEALTH

The basic biologic and social concepts dealing with individual hygiene, disease, nutrition, mental health, heredity, and family hygiene.

HEA 253 COMMUNITY HEALTH ................................................ 3 (3-0-0)
The basic principles and problems of contemporary community health and school hygiene are investigated. Topics include health education, recognition, evlaution and prevention of today's health problems, and trends in health.

## HISTORY

## HIS 151 HISTORY OF WESTERN CIVILIZATION I <br> 5 (5-0-0)

An eclectic approach to the history of Western Civilization from prehistoric times through the civilization of Egypt, Mesopotamia, Greece, Rome, and Medieval Europe to about 1650 . The course is designed to prepare students for life in the world community by providing them a knowledge of those events of the past which have shaped the present and will influence the future.

HIS 152 HISTORY OF WESTERN CIVILIZATION II ............. 5 (5-0-0)
A continuation of History of Western Civilization 151 covering the period from 1650 to the present. The course is designed to afford the student an opportunity to examine the major historical forces which have shaped the political, intellectual, material, and cultural setting of the present.

HIS 161 NORTH CAROLINA HISTORY .................................... 5 (5-0-0)
A survey of the history of North Carolina from the Colonial Era to the present with emphasis on development since the Civil War.

## HIS 251 U.S. HISTORY I <br> 5 (5-0-0)

The backgrounds of history, settlement, constitutional development, and union, along with manifest destiny and developing sectionalism. The course covers the period through 1865.

HIS 252 U.S. HISTORY II
5 (5-0-0)
Course covers Reconstruction, the progressive movement, World War I, and American history to the present. Students will become more aware of their nation as a part of the world community through this course.

HIS 261 NINETEENTH CENTURY EUROPE ........................... 3 (3-0-0)
An in-depth survey of European history from 1815 to 1914. A cause and effect approach is used to trace the growth of nationalism and liberalism, the development of socialism, and the imperialism which brought turbulence throughout much of the century and eventually triggered World War I.

HIS 271 TWENTIETH CENTURY EUROPEAN HISTORY ... 3 (3-0-0) A consideration of the history of twentieth century Europe, beginning with the background of World War I, the political innovations between wars, World War II and its aftermath, and the significant political, social and cultural events which shaped the present. In addition to a factual examination, students will relate historical events with their own situation.

## HIS 272 CIVIL WAR AND RECONSTRUCTION

 3 (3-0-0)A study of the American people during the crisis of the war and post-war periods with emphasis on the causes of the war, the national and international impact, and the political, economic and social aspects of the Reconstruction.
HIS 273 TWENTIETH CENTURY U.S. HISTORY
5 (5-0-0)
A history of the United States from 1900 to the present. Special emphasis is given to the changing political, economic and social/cultural elements of American society; and how these changes are reflected in diplomacy and the changing role of the United States in world affairs.

## HUMANITIES

Humanities/Fine Arts requirements can be selected from art, modern language, literature, creative writing, music, religion, and oral communication courses as offered and according to individual course prerequisites.

## HUMAN SERVICES

HSE 101 INTRODUCTION TO HUMAN SERVICES
3 (2-2-0)
Upon completion of this course, the student should be able to demonstrate an understanding of the history, theories, and components of human services systems and the role of social service personnel in human services agencies, institutions, and programming. Guest lectures, representatives of human services occupations, and field trips to agencies and institutions delivering human services will provide the student with a broad overview of a community-wide delivery system. Professional ethics, with emphasis on confidentiality, will be stressed.

## HSE 102 INTRODUCTION TO HEALTH CARE (NURSING ASSISTANT) <br> 5 (2-2-6)

Upon completion of this course, the student should be able to provide personal care and perform basic nursing skills in agencies and/or institutions that work with client/ patients requiring basic nursing skills. Emphasis is on mental, social, and physical needs of patients (especially the elderly and disabled) and on medical/legal ethics. The student will be able to demonstrate skills/competency in: universal infection control and maintaining a clean, safe environment; principles of movement and restorative services; identification of human body structure and function and related common diseases/disorders; nutrition management; elimination procedures; daily personal care procedures; measurement of vital signs; communication and documentation utilizing medical terminology; providing care to dying patients; and the roles of direct care provider (nursing assistant) and health team members. Certification in CPR and as a Nursing Assistant I is awarded upon satisfactory completion of this course. Prerequisite: Enrollment in Human Services Technology Program.

## HSE 103 INTRODUCTION TO GERONTOLOGY

3 (2-0-3)
Upon completion of this course, the student should be able to demonstrate an understanding of the biological, physiological, sociological, and psychological aspects of the aging process and strategies to meet the comprehensive service needs of the elderly population. The student will understand the concepts of wellness and preventive services and strategies. Clinical experiences will be provided in community agencies that serve the elderly.

Upon completion of this course, the student should be able to demonstrate a working knowledge of the purpose, structure, focus, and techniques employed in effective interviewing. Laboratory experiences providing opportunities for observation, practice, recording, and summarizing personal histories under faculty supervision are included. Importance of the interview as client's initial encounter with system is stressed; interviewing to meet need of client rather than of system is also stressed.

HSE 202 INTRODUCTION TO SOCIAL WELFARE ................. 5 (5-0-0)
Upon completion of this course, the student should be able to: define social welfare and its relationship to social work in the United States; discuss the Social Welfare System and its institutions; identify and discuss recent trends in social welfare, including the identification of current legislation (laws, bills) affecting the system; discuss the basic characteristics of American society which contributes to the breakdown of individual and family self-care; discuss the condition and extent of poverty in the United States today and current programs, both in operation and proposed, aimed at the alleviation of poverty and related social conditions. Special emphasis will be placed on compliance with ADA (American with Disabilities Act).

## HSE 203 INTRODUCTION TO CHEMICAL DEPENDENCY AND SUBSTANCE ABUSE <br> 4 (3-0-3)

Upon completion of this course, the student should be able to demonstrate an understanding of the socio-cultural, psychological, and physiological aspects of drug and alcohol addiction. Clinical experiences will be required in community agencies that provide prevention and treatment services. Prerequisite: CHE 164 or permission of instructor.

HSE 204 INTRODUCTION TO DEVELOPMENTAL DISABILITIES
Upon completion of this course, the student should be able to demonstrate an understanding of the historical background as well as current issues involved in treating persons with MR/DD. The psychological and physiological implications of chronic disabilities will be explored. Clinical experiences will be required in community agencies that provide comprehensive services to disabled persons and their families.

HSE 205 INTRODUCATION TO FAMILY INTERVENTIONS
Upon completion of this course, the student should be able to demonstrate an understanding of how family dynamics are affected by the various treatment modalities and intervention strategies of human services agencies. Clinical experiences will be required in community agencies that provide mental health and support services to children and adults within a family context.

HSE 206 INTERNSHIP IN HUMAN SERVICES
12 (2-0-30)
Upon completion of this course, the student should be able to discuss thoroughly the work experience and demonstrate an understanding of the procedures and service techniques at the internship site(s). Internships consist of 30 hours per week at an approved agency, institution, or program; selection is made by student in consultation with the instructor. This supervised internship experience provides the student with the opportunity to apply and practice what has been learned in the program while learning from professionals in the field.

Upon completion of this course, the student should be able to demonstrate a synthesis of the knowledge and experience gained in their classes and clinical experiences. An in-depth review of current issues and trends in the human services field is covered.

## INDUSTRIAL MANAGEMENT

ISC 133 INDUSTRIAL SAFETY ................................................. 5 (5-0-0)
A responsibility of industrial managers is to provide a safe work environment for employees. Topics include OSHA and state regulations, protection of employees from injury, job and safety instruction, company rules and enforcement, the relationship of safety to insurance, as well as planning, implementing, and evaluating a good safety and fire prevention program.

ISC 210 INVENTORY MANAGEMENT
3 (3-0-0)
Inventory management is a evolving discipline that encompasses the principles, concepts, and techniques for determining what items to order, in what quantity, when they are needed, when to order, and how and where to store them. This course is designed to prepare the student for APICS certification in Inventory Management.

ISC 212 MATERIAL AND CAPACITY PLANNING 5 (5-0-0)
A study of the process of measuring the amount of work scheduled and determining the materials required as well as the human and physical resoures necessary to accomplish it. The course is desigend to prepare the student for APICS certification in Materials and Capacity Planning.

ISC 214 JUST-IN-TIME CONTINUOUS IMPROVEMENT ..... 3 (3-0-0)
A study of the Total Quality philosophy and Just-in-Time techniques that seek to improve the ability to economically respond to change. Production to demand with perfect quality, no unnecessary lead times, elimination of waste, development of the productive potential of people, and the quest for continuous improvement are the general concepts. Designed to prepare the student for APICS certification in Just-inTime.

ISC 216 PRODUCTION PLANNING AND SCHEDULING ... 5 (5-0-0) Designed to prepare the student for APICS certification in Master Planning. Four activities are central to the course: demand management, production planning, master production scheduling, and final assembly scheduling. Topics include forecasting, budgeting, aggregate output level, and order entry.
$\begin{array}{ll}\text { ISC } 218 & \text { PRODUCTION AND OPERATIONS } \\ & \text { MANAGEMENT ......................................... }\end{array}$
5 (5-0-0)
Designed to prepare the student for APICS certification in Production Activity Control, this course encompasses the principles, approaches, and techniques needed to schedule, control, measure, and evaluate the effectiveness of production operations. The course views a broad base of production operations in a wide variety of production environments. Additional topics include organization and objectives, data requirements, short term capacity, production authorization, lead time, production measurement, and reporting.

Designed to prepare the student for APICS certification in Systems and Technology, the course includes planning and designing production systems and selection of appropriate technology. Included is an investigation into compterized production technology and appropraite sytems to implement the technology.

## ISC 230 QUALITY CONTROL

4 (3-2-0)
Principles and techniques of statistical process control are the focus of this course. Included are: organization and procedure for efficient quality control; the functions, reaponsibilities, structure, cost reports, records, personnel and vendor-customer relationships in quality control; inspections, process control and tests of significance.

## INSTRUCTIONAL SUPPORT SERVICES

LLB 100C
(Varied Hours; No Credit)
Special support for students who need individualized attention and increased concentration to support academic class work in General Education. Open to all students enrolled in the General Education curriculum, the lab operates on a multi-entry, multi-exit basis. A teacher referral for required attendance is necessary for student enrollment. Student tutors will be utilized, where applicable, to enhance instructional support.

## LLB 100T

(Varied Hours: No Credit) Special support for students who need individualized attention and increased concentration to support academic class work in technical education. Open to all students enrolled in a technical curriculum, the lab operates on a multi-entry, multi-exit basis. A teacher referral for required attendance is necessary for student enrollment. Student tutors will be utilized, where applicable, to enhance instructional support.

## LLB 100 V <br> (Varied Hours: No Credit)

Special support for students who need individualized attention and increased concentration to support academic class work in vocational education. Open to all students enrolled in a vocational curriculum, the lab operates on a multi-entry, multiexit basis. A teacher referral for required attendance is necessary for student enrollment. Student tutors will be utilized, where applicable, to enhance instructional support.

## MATHEMATICS

MAT 090 MATHEMATICS SKILLS ............................................. 3 (1-4-0)
This course is an individualized course for students who need to develop a foundation
in entry mathematical concepts. Institutional credit only.
MAT 096 DEVELOPMENTAL MATHEMATICS ......................... 4 (3-2-0)
Designed for students who need a review of the basics before taking MAT 099.
Topics include expressing numbers, whole numbers, number theory, fractions, dec-
imals, ratio and proportion, and percentages. Institutional credit only.
MAT 099 BEGINNING ALGEBRA ................................................ (5-0-0)
This course is designed for students who need a review of basic algebra skills before
taking higher-level algebra courses or related courses in other disciplines. Topics
include: a study of the real number system with operations on real numbers and
polynomials, solving linear equations and inequalities; solving quadratic equations by factoring, and applications of these topics. Prerequisite: Satiffactory placement score or completion of MAT 096. Institutional credit only.

## MAT 155 INTERMEDIATE ALGEBRA 5 (5-0-0)

This course is designed for students with a background in basic algebra, in order to prepare them for college algebra and related courses in other disciplines. Topics include operations on real numbers, polynomials, rational expressions, roots, radicals, and fractional exponents. Other topics include solving linear equations, systems of equations, quadratic equations, and rational equations. This course will include graphing and applications of these topics. Prerequisite: Satisfactory placement score or completion of MAT 099.

## MAT 161 COLLEGE ALGEBRA 5 (5-0-0)

A modern approach to college algebra with emphasis on the logical structure of this discipline. Topics include numbers, sets, functions, graphs, equations, inequalities, matrices and determinants, the binomial theorem, and theory of equations. Use of a graphing calculator is required. Prerequisite: Satisfactory placement score or MAT 155 or permission of instructor.

## MAT 162 TRIGONOMETRY 5 (5-0-0)

A study of trigonometry and its applications. Topics include a study of right and oblique triangle relationships, graphs of trigonometric functions, trigonometric identities and equations, inverse trigonometric functions, exponential and logarithmic functions, circular functions and complex numbers in trigonometric form. Calculator usage is emphasized throughout. Prerequisite/Corequisite: MAT 161 or permission of instructor.

MAT 171 INTRODUCTORY STATISTICS 5 (5-0-0)
The course will include distributions, computation of averages and measures of dispersion, probability distributions, elements of sampling, correlation, prediction, tests of hypothesis. Offered on demand. Prerequisite: MAT 161 or permission of instructor.

## MAT 191 CONCEPTS AND TECHNIQUES OF CALCULUS .... 5 (5-0-0)

 A brief treatment of basic concepts of differential and integral calculus with applications to business, economics and the social and life sciences; polynomial, exponential and logarithmic functions. Prerequisite: MAT 161 or permission of instructor.MAT 251 CALCULUS I .................................................................. 5 (5-0-0)
This beginning course in calculus offers a review of analytical geometry and is a study of the derivative, its inverse, theorems, and applications. Special attention is placed on the ideas of limits and continuity. This course is designed for mathematics, science, or engincering majors. Prerequisite: Satisfactory placement score or MAT 162.
MAT 252 CALCULUS II ................................................................. 5 (5-0-0)
A continuation of MAT 251. Includes integration and its applications, conic sections, limits and continuity. Prevequisite: MAT 251.

## MAT 253 CALCULUS III

 5 (5-0-0)A continuation of MAT 252. The course includes exponential and logarithmic integration and differentiation, parametric equations, polar coordinates, methods of integration and further applications of the integral. Prerequisite: MAT 252.

## MAT 254 CALCULUS IV 5 (5-0-0)

A continuation of MAT 253. The course includes infinite series, vector functions, analytic geometry of three dimensional space, partial differentiation multiple integration, applications, line integrals and Green's Theorem. Prerequisite: MAT 253.

MAT 1101 TRADE MATHEMATICS I ............................................ 3 (3-0-0)
Practical number theory is the basis for this course. Analysis of basic operations: addition, subtraction, multiplication, and division are included. Other topics studied are fractions, decimals, and percentages. Some work with solid and plane geometric figures is undertaken as well; specifically, determinations of volume and surface areas. Extensive practice is required. The student is exposed to basic algebra.

MAT 1102 TRADE MATHEMATICS II ........................................... 3 (3-0-0) A presentation of basic concepts and operations of algebra; algebraic operations; addition, subtraction, multiplication, division; and order of operations; fractions, letter representation, grouping, ratio and proportion, graphical and algebraic solution of first degree equations; and exponents. Prerequisite: MAT 1101 or permission of instructor.

## MAT 1104 BASIC MATHEMATICS 3 (3-0-0)

 A study of basic concepts of mathematics including addition, subtraction, multiplication, and division of numbers. Fractions, decimals, and percentages also will be studied.
## MACHINIST

## MEC 101 MACHINE PROCESSES I 3 (2-0-3)

This is an introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes in our modern industry. The course includes a study of measuring instruments, characteristics of metals, and cutting tools. The student will become familiar with the lathe family of the machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

## MEC 102 MACHINE PROCESSES II

This course covers advanced operations on lathe, drilling, boring and reaming machines. The types of milling machines, cutter, jog, fixture devices, the accessories used in a modern industrial plant, and safety in the shop are also studied. Prerequisite: MEC 101.

MEC 112 NUMERICAL CONTROL THEORY ............................ 3 (2-2-0)
An introduction to numerical control. Demonstrations by the instructor of the various pieces of numerical control machinery and peripheral equipment in the machine shop, pointing out various controls and operating procedures including safety instructions. Students will program, set up, and operate the various shop numerical control equipment while working on projects. Prerequisite: MEC 101, MAT 162.

MEC 113 NUMERICAL CONTROL PRACTICE 4 (2-4-0)
An advanced course in numerical controls. Students will program, set up, and operate the various pieces of numerical controls equipment in the machine shop while working on projects. Prerequisite: MEC 112.

HYDRAULIC AND PNEUMATIC FUNDAMENTALS
The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, plumbing, filtration, pumps, valves, accumulators and reservoirs. Laboratory work to include field trips to local industries. Prerequisite: PHY 102.

## MEC 123 COMPUTER AIDED MANUFACTURING

 4 (2-0-6)An introduction to the computer in the manufacture of computer numerically controlled (CNC) parts. Through the computer, the student will generate an image and tool path that will create a finished machine part by whatever machine operation called for in the tool path. Prerequisite: DFT 120, DFT 121, DFT 122.

MEC 210 INDUSTRIAL RIGGING
3 (2-0-3)
A study of the principles of safe rigging practices for the purpose of handling, placing and moving heavy machinery and equipment. Deals with hoists, lifts, slings, rollers, beds, jacks, levers and dollies: loadings and margins of safety ropes, chains, cables and struts to prevent damage. Safe rigging procedures and signaling practices are also studied. Standard practices of equipment and machinery installation including foundations, beds, support, leveling, alignment, shimming and anchoring will be covered.

MEC 211 PHYSICAL METALLURGY
3 (2-0-3)
An introductory course in the uses of metals, alloys and plastics, together with the basic necessary theory for proper materials application. Basic metallurgical theory will be briefly presented. Basic plastics will also be covered. The available common steels and non-ferrous alloys will be discussed. Laboratory work will include physical testing of metal specimens, reading of test results, and field trips to related local industries. Prerequisite: None.

## MEC 212 APPLIED MECHANICS

4 (2-4-0)
A study of the components of mechanical systems including drives, belts, couplings, clutches, gears, sprockets, chains and component locking devices. Emphasis is placed on basic lubrication principles as motions and forces in addition to basic lubrication principles as applied to mechanical systems. Upon completion, students will be able to explain the operation of components of mechanical systems and to describe how these systems are maintained and lubricated.

MEC 214 INTRODUCTION TO PUMPS
2 (1-0-3)
An introduction to pump installation, performance, inspection and maintenance. Course content includes selection, preparation, mounting and alignment. Students will disassemble, inspect components, make repairs, replace packings, seals and gaskets, reassemble and check performance on a variety of pump types.

MEC 1110 MACHINE PROCESSES I 3 (2-0-3)
An introduction to basic machine operations in relation to manufacturing processes and drafting. Deals primarily with the identification, care and use of basic hand tools and precision-measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice. Safety in the shop is stressed.

## MEC 1111 MACHINE PROCESSES II

Advanced operations in layout tools and procedures, lathe, power saw, drill press, surface grinder, milling machine shaper. The student will complete selected projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1110 or permission of instructor.

MEC 1133 MECHANICAL MAINTENANCE 4 (2-0-6)
To acquaint the student with the basic fundamentals of installation, maintenance and repair of machines. Miscellaneous electrical, mechanical, hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling and fastening are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center line distances are stressed for pre-start inspection. Prerequisite: MEC 1101, DFT 1104, DFT 1113.

## MEC 1140 HYDRAULICS-FUNDAMENTALS <br> 3 (3-0-0)

This course is arranged to give the student a general knowledge of the basic components of hydraulic systems, as well as a general understanding of the basic laws and formulas used in simple hydraulic symbols, pumps, control valves, control assemblies, actuators, and basic maintenance procedures.

## MAINTENANCE

$\begin{array}{ll}\text { MNT } 201 & \text { PREVENTIVE/PREDICTIVE MAINTENANCE } \\ & \text { TECHNIQUES ................................................................ } 3 \text { (2-2-0) }\end{array}$
Covers both theory and practical applications of setup, implementation and maintenance of a preventative/predictive maintenance program. Techniques in computer coupling alignment, bearing analysis, vibration analysis, infrared thermography and computer maintenance management software will be introduced.

MNT 202 MAINTENANCE PRACTICES
2 (1-0-3)
Students will practice mechanical and electrical maintenance tasks including scheduled maintenance and typical equipment failure problems. Documentation of maintenance performed will be stressed.

MNT 203 MAINTENANCE MANAGEMENT ............................... 3 (3-0-0)
Includes administration, decision making, setup, and inspection of various programs such as preventive/predictive maintenance, inventory control, and organization and functions of maintenance. Various aspects of management, engineering, resource analysis, and maintenance facilities are covered.

## MEDICAL ASSISTING

MED 1101 CLINICAL PROCEDURES I
4 (3-2-0)
An Orientation to Medical Assisting; introduction to the Allied Health professions; introduction to the language of medicine; introduction to principles of asepsis and methods of equipment sterilization; principles of nutrition; and procedures for assisting in the physical examination process.

## MED 1102 CLINICAL PROCEDURES II

 5 (2-6-0)Upon completion of this course, students should be able to identify all equipment and supplies and establish a method of inventory; select, assemble, and prepare sterile supplies and equipment needed to assist in surgical procedures using aseptic technique; take blood pressure using palpation and augmentation methods; demonstrate eye and ear irrigations and instillations; prepare and administer medications safely and accurately; and demonstrate recording and mounting of electrocardiogram. Prerequisite: MED 1101.


#### Abstract

MED 1103 CLINICAL PROCEDURES III 4 (3-2-0) Upon completion of this course, the student should be able to assist the physician and explain the preparation of the patient who is to have such advanced diagnostic procedures as chemotherapy, radiation, and nuclear medicine, demonstrate correct methods of administering medication, restraining methods, growth patterns and collection of specimens for the pediatric patient; and administer CPR. Prerequisite: MED 1102; Corequisite: MED 1120.


## MED 1104 ADMINISTRATIVE PROCEDURES I

4 (3-2-0)
Upon completion of this course, students should understand the basic mathematical and accounting concepts for practical application in a medical office. Additional administrative duties covered are: processing mail, maintaining patient records, billing and collection procedures, medical insurance, and telephone etiquette.

MED 1105 ADMINISTRATIVE PROCEDURES II 4 (3-2-0)
Upon completion of this course, students should be able to keep a single set of books; maintain peg board; maintain a checking account; follow efficient billing schedule; compose effective collection letters; apply rules for telephone requests for payment, handle special collection problems; explain medical fees, and assist patient in planning financing of medical care. Prerequisites: MED 1104, BUS 102, ENG 1103; Corequisites: MED 1111, EDP 151.

## MED 1106 ANATOMY \& PHYSIOLOGY I FOR

 MEDICAL ASSISTANTS3 (3-0-0)
Upon completion of this course, students should understand the basic concepts of biological organization, cell morphology and physiology, body organization and planes. The course encompasses the Integumentary, Skeletal, Muscular, and Nervous systems of the human body.

MED 1107 ANATOMY \& PHYSIOLOGY II FOR MEDICAL ASSISTANTS

3 (3-0-0) A continuation of MED 1106. Systems covered: special senses, Respiratory, CardioVascular, Circulatory, Urinary, Reproductive, and Endocrine. Prerequisite: MED 1106.

## MED 1111 MEDICAL TERMINOLOGY I

Upon completion of this course, students should be able to read and understand medical terms; build medical terms from Greek and Latin prefixes, suffixes, word roots and combining forms; spell medical terms correctly; use a medical dictionary; and use appropriate abbreviations and symbols. Prerequisite: MED 1101.

A continuation of MED 1111 with objectives applying to the following systems; neurological and psychiatric, urogenital gynecological and obstetrics, endocrine, sense, digestive. Prerequisite: MED 1111.

## MED 1114 MEDICAL ETHICS AND LAW

Upon completion of this course, students should be able to describe the laws that govern the practice of medicine; differentiate between the various medical practice arrangements and their legal implications; describe each medical service available to the public in the community and the way each contributes to comprehensive care; explain the meaning of the A.M.A. principles of Medical Ethics and discuss how each applies to the physician and the staff; list the Supreme Court decisions in which the Medical profession is directly involved.
MED 1116 MEDICAL TRANSCRIPTION ...................................... 4 (3-2-0)
In this course, students will be introduced to material that is routinely transcribed in a medical office. Upon completion of this course, they should be able to transcribe given medical material accurately. Prerequisite: BUS 102, MED 1101, and EDP 151.

## MED 1120 LABORATORY PROCEDURES

 6 (3-6-0)Upon completion of this course, students should be able to cite the laboratory rules of safety; handle the equipment and reagents in a safe, responsible manner; identify the equipment, glassware, and supplies by sight and use; demonstrate the basic knowledge of the simple laboratory tests done in a physician's office by performing the test with accuracy, speed, personal integrity and complete honesty. Prerequisite: MED 1107 and MED 1102. Corequisite: MED 1103.

## MED 1125 MEDICAL ASSISTING PRACTICUM <br> 12 (3-0-27)

The student is assigned by the college to a physician's office or medical setting and evaluated and graded by the college. Duties include practical experience in both the administrative and clinical areas of Medical Assisting. The lecture will be used for discussion of experience and problems encountered during the practicum. The student will have also gained a broad understanding of the personal and occupational responsibilities of a Medical Assistant. Prerequisite: Completion of 3 quarters of MED curriculum with a $C$ average or better.

## MUSIC

MUS 250 MUSIC APPRECIATION ............................................. 5 (5-0-0)
A non-technical course for students with little or no musical background. Emphasis is placed on the style and form of music as perceived by the listener.

## NURSING

## NUR 101 FUNDAMENTALS OF NURSING

7 (4-2-6)
This course acquaints the student with basic nursing theory and skills with an overall emphasis on meeting adult patient basic needs. The student is introduced to each component of the conceptual framework and philosophy of the Mitchell Community College nursing program. Skills embodied in the NLN ADN Roles and Competencies (Appendix A-1) are introduced as threads throughout the curriculum. Provisions are made for the application of nursing theory in an on campus laboratory and in
the hospital setting. The student is expected to develop and demonstrate a beginning confidence in the performance of skills and patient care utilizing appropriate techniques. Prevequisite: Admission into the $A D N$ Program.

## NUR 102 PHARMACOLOGY IN NURSING

2 (1-2-0)
This course acquaints the student with basic pharmacology theory and necessary skills needed to calculate and administer medications to clients. Medication administration is emphasized as a major part of the role of provider of care. Prevequisite: Admission into the ADN Program.
NUR 110 HEALTH ASSESSMENT IN NURSING ...................... 2 (1-2-0) This course introduces the student to a complete full-body assessment of health. Assessment of all body systems is emphasized as a major component of the nursing process while the student is functioning in the role of provider of care. Preerequisite: NUR 101, BIO 251. Corequisite: BIO 252.

## NUR 111 MEDICAL-SURGICAL NURSING I

9 (5-2-9)
This course emphasizes the role of provider of care for the ADN utilizing the nursing process in helping patients meet their basic human needs and cope with the stresses of movement along with the health-illness continuum. Surgery, oxygenation, and fluid/electrolyte imbalances, onocology, geriatric and biophysical and psychosocial concepts are presented as common health problems. Clinical experience is integrated with theory and laboratory experiences to give the student the opportunity to achieve increased performance of the skills embodied in the NLN ADN Roles and Competencies position paper. The use of the nursing process highlighting physical assessment skills is stressed in the clinical area. In addition, basic computer skills are presented as these apply to the health care setting. Clinical activities are designed to reinforce classroom and laboratory learning. Prerequisite: NUR 101 © 102, BIO 251, PSY 151.
NUR 112 MEDICAL-SURGICAL NURSING II
10 (6-0-12)
Emphasis is placed on expanding the students ability to use the nursing process and the skills embodied in the NLN ADN Roles and Competencies as these apply to the basic needs of patients experiencing dysfunction in the musculoskeletal, gastrointestinal, endocrine, and reproductive systems. In addition, this approach is utilized in presenting material on patients/clients experiencing movement along the health-illness continuum due to skin, immunological, allergic or infectious disorders. Preregmisite: NUR 111, 151 \& 110, BIO 252.
NUR 113 MEDICAL-SURGICAL NURSING III
10 (6-0-12)
Nursing 113 focuses on the pathophysiology, prognosis, treatment, and application of the nursing process to the care of patients with disorders of the following systems: cardiovascular, respiratory, renal, sensory, and neurological. The unit also includes pathophysiology, prognosis, treatment, and application of the nursing process for the patient with burns, other common emergencies and multiple trauma. Basic concepts of critical care nursing will be included. Clinical experience is integrated with theory to give students the opportunity to achieve increased skills in the performance of selected nursing procedures. Within the clinical setting, the student will expand their role of provider of care to meeting the needs of patients with complex health concerns. The student will also be given opportunities to enhance knowledge and comprehension of their role as a member of the health care team. A rotation of ICU, $\mathrm{CCU}, \mathrm{ER}$ and dialysis is included in the clinical experience. Other clinical experiences
may be included as available; these may include cardiac cath lab, neuro speciality unit and surgical observation. Prerequisite: NUR 112, BIO 253. Pre or corequisite: BIO 255.

## NUR 151 BASIC NUTRITION 2 (2-0-0)

This course presents a practical study of nutrients, how they are used by the body, and their sources, taking into consideration developmental and ethnic variations. Common hospital diets used in diet therapy are introduced. Prerequisite: NUR 101.

NUR 212 PEDIATRIC NURSING 10 (6-0-12)
NUR 212 is an in-depth study of the care of children from infancy through adolescence. The course is structured around the role of the nurse as provider of care, utilizing the nursing process, organizing nursing care according to basic human needs, and focusing on the common health concerns of the normal growing child. During the course emphasis is placed on normal growth and development; nurse-patient-parent relationships, short and long term illnesses from infancy through adolescence, and preventative, curative, and rehabilitative aspects of nursing of children. Throughout the course the nurse's role in promoting the physical and emotional well-being of the childrearing family is stressed. Prerequisite: NUR 110, 111, NUR 151, BIO 252. Pre or corequisite: PSY 262, BIO 253.

## NUR 213 OBSTETRICAL NURSING

10 (6-0-12)
NUR 213 is an in-depth study of the care of the childbearing family from precoception through the neonatal period. The course is structured around the role of the nurse as provider of care, utilizing the nursing process, prioritizing according to basic human needs, and focusing on common health concerns of the childbearing family. The normal physiological process of childbearing (wellness) and deviations from the normal (illness) provide the framework of study. There is an emphasis, throughout the course, on preventative measures and the nurse's role as teacher, in promoting the physical and emotional well-being of the childbearing family. Prerequisite: NUR 112, PSY 262, BIO 253. Pre or corequisite: BIO 255.

NUR 214 PSYCHIATRIC NURSING ........................................... 7 (4-0-9)
NUR 214 is an in-depth study of mental health care in the community and in inpatient psychiatric facilities. The course is structured around the role of the nurse, utilizing the nursing process, prioritizing according to the basic human needs, and focusing on common mental health concerns. Normal responses to stress and deviations from the normal response are described, along the healthiness continuum. There is an emphasis, throughout the course, on the nurse's therapeutic role as provider of care, preventative role as manager of care through early referral, and role as member within the profession, through addressing issues and trends impacting the mental health of clients in any health setting. Prerequisite: NUR 113, PSY 264.

NUR 215 NURSING LEADERSHIP AND TRENDS 6 (3-0-9)
This course emphasizes all the roles of the Associate Degree nurse. Current trends, transitional concerns and the need for continuing education are emphasized. Ethics, accountability, and legal aspects of practice are discussed. Transition to the role of the graduate is stressed. Prerequisite: NUR 113, 212, or 213.

## PHLEBOTOMY

MLA 1101 BASIC CONCEPTS IN PHLEBOTOMY 11 (9-4-0)
Upon completion of this course, the student should be able to demonstrate a knowledge of the basic concepts of health care delivery systems, anatomy and physiology, blood collection equipment, human relations in dealing with patients, collection procedures, infection control, specimen processing, quality control, record keeping and safety. Various procedures and techniques are practiced in the on-campus laboratory.
MLA 1102 PHLEBOTOMY CLINICAL EXPERIENCE ............... 5 (1-0-12)
Upon completion of this course, students should be able to perform venipuncture, capillary/skin-punctures, and microcollection techniques in a clinical facility. In addition to developing technical expertise under closely supervised experience, human relation skills in working with patients are stressed. Students will also be able to demonstrate computer skills in data management for performance of phlebotomy procedures.

## PHYSICAL EDUCATION

Each physical activity course may be taken and counted twice for graduation. The physical education program of activity courses has been designed to give the students knowledge of a program to carry with them when they leave school and to aid in their physical conditioning while in school. For these reasons, credit by examination may not be given for activity courses.

The College does not provide transportation to any off-campus Physical Education activity.

> PED 150 ARCHERY .............................................................. 1 $(0-2-0)$ A course designed to teach the student the fundamental skills of the target bow and arrow.

PED 151 BADMINTON ............................................................... I (0-2-0)
A course designed to teach the student the rules, regulations and fundamental skills of badminton.
PED 153 BASKETBALL

A course designed to teach the students basic basketball technique with emphasis
placed on rules, regulations and fundamental skills.

PED 154 BOWLING .................................................................................. (0-0)
A course designed to teach the students the fundamental skills of bowling.
A course designed to teach the students the fundamental skills of bowling.
PED 155 PHYSICAL FITNESS ..................................................... 1 ( $0-2-0$ )
A course designed to teach the student principles of developing and maintaining the components of physical fitness with emphasis on cardiovascular fitness and muscle tone. Students begin with their present level of fitness and progress according to their personal needs.
PED 156 FENCING ...................................................................... 1 (0-2-0)
A course designed to teach the student the rules, regulations, and fundamental skills of fencing.

## PED 157 GOLF

A course designed to teach the student the rules, regulations, etiquette and fundamental skills of beginning golf.

## PED 160 TENNIS <br> 1 (0-2-0)

A course designed to teach basic fundamental tennis, with emphasis placed on skills, rules and regulations.

PED 161 VOLLEYBALL .............................................................. 1 (0-2-0)
A course designed to teach the basic skills of volleyball with emphasis placed on team play, rules and regulations.

PED 162 WEIGHT TRAINING .................................................... I (0-2-0)
A course designed to teach fundamental skills related to weight training with an emphasis placed on body conditioning and control.

PED 164 VARSITY BASKETBALL ............................................... 1 (0-5-0)
PED 165 VARSITY GOLF ............................................................. 1 ( 0 -5-0)
PED 166 VARSITY TENNIS .......................................................... I (0-5-0)
PED 164,165 , and 166 are courses designed for skilled students to participate against each other to improve skills and understandings of advanced techniques, rules and regulations. Students in these classes may be permitted to participate in inter-collegiate student activities.

PED 169 GYMNASTICS ............................................................... I (0-2-0)
A course designed to teach basic tumbling, floor exercise, conditioning, safety, and trampoline maneuvers.

PED 170 SKIING 1 (0-3-0)
A course designed to give information concerning safety in skiing, equipment, clothing, and techniques of skiing used on the slopes.

PED 171 INTERMEDIATE GOLF ................................................ 1 (0-2-0)
A course designed to teach intermediate golf skills to the student. Emphasis is based on the non-beginner skills.

PED 172 BEGINNING KARATE ................................................. 1 (0-2-0)
A course designed to teach basic self-defense. Included are blocks, counter punches, and proper kicking techniques. Also stressed are mental and physical conditioning related to the marital art of Tae Kwan Do Karate.

PED 175 INTERMEDIATE TENNIS ............................................ 1 (0-2-0)
A course designed to teach strategy and execution of successful skills used in a tennis match. Emphasis is placed on execution at forehand, backhand, serve, volley, and doubles play and strategy.

PED 178 COMPETITIVE BASKETBALL ..................................... I (0-2-0)
A course designed to teach all aspects of the competitiveness of basketball. Emphasis is placed on team play and the intramural aspects of the game of basketball.

PED 179 SWIMMING .................................................................... 1 (0-2-0)
A course designed to teach and improve basic swimming strokes, water safety, diving, and to promote general fitness.
PED 182 INTRODUCTION TO LIFETIME SPORTS ..... 1 (0-2-0)A course designed to teach activities which are available to all individuals in theirlifetime. A brief introduction to the following leisure time sports: bowling, golf,tennis, billiards, archery, badminton, and physical fitness.
PED 183 JOGGING ..... 1 (0-2-0)A course designed to teach proper methods and techniques for devising a joggingprogram. Emphasis placed on basic fundamentals for fitness and health.
PED 190 AEROBIC DANCE ..... 1 (0-2-0)A course designed to teach the student basic concepts and patterns of aerobic danceto ensure fitness and muscle tone through continuous, rhythmic exercise.
PED 191 WATER SKIING ..... 1 (0-2-0)
A course designed to teach the fundamental skills of skiing on water. Included aresafety, equipment, equipment care, fundamentals and slalom.
PED 192 LIFESAVING ..... 2 (0-4-0)A course designed to teach the proper methods of lifesaving water rescues, basic firstaid, CPR, lifeguarding, and individual survival in the water. UMCA and Red Crosscertifications upon successful completion. Prerequisites: Advanced swimming skills. Strokesinclude freestyle, breastroke, sidestroke, elementary backstroke. Skills include treading water,surface dives and underwater swimming.
PED 193 RACQUETBALL ..... 1 (0-2-0)A course designed to teach the student the rules, regulations, and fundamental skillsof racquetball.
PED 194 INTERMEDIATE RACQUETBALL ..... 1 (0-2-0)A course designed to introduce additional, more advanced offensive and defensiveshots to the beginning racquetball player. Additional serves are taught, and emphasisplaced on shot placement and strategy.
PED 195 COMPETITIVE VOLLEYBALL ..... 1 (0-2-0)A course designed for students to concentrate on strategy and execution of powervolleyball skills. The course is intended to provide the student with practice in acompetitive skill level of play. Emphasis is on team play and interclass competition.
PED 196 WELLNESS AND FITNESS CONCEPTS ..... 1 (0-2-0)A course designed to investigate and apply the basic concepts and principles oflifetime physical fitness and other health-related factors. This course provides the in-dividual with a fitness profile, and the ability to make intelligent decisions relevant tothe development, maintenance, and evaluation of physical fitness and health-relatedareas.

## PHYSICS

PHY 101 PROPERTIES OF MATTER ......................................... 4 (3-2-0)
A fundamental course covering basic principles of physics including solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are a part of the course.

PHY 102 MECHANICS ................................................................. 4 (3-2-0)
Major areas covered in this course are force, motion, work, energy, and power.
Major areas covered in this course are force, motion, work, energy, and power. Instruction includes such topics as vectors and graphic solutions, basic machines, friction and torque. Prerequisite: PHY 101, MAT 161.

## PHY 103 ELECTRICITY <br> 4 (3-2-0)

Basic theories of AC and DC including the electron theory production of electricity by chemical action, friction, magnetism and induction. Industrial application involving the use of voltage, amperage, resistence, horsepower and wattage are major parts of the course. Prerequisites: PHY 101, MAT 162.

## PHY 271 GENERAL PHYSICS I

 4 (3-3-0)This is the first quarter of a three quarter sequence of study in the basic principles of physics. This quarter covers the fundamental concepts of the nature of physics and classical mechanics. The basic topics included are measurement, general properties of matter, vector analysis, kinematics, dynamics, statics, and the conservation of momentum and energy. Prerequisite or corequisite: MAT 162.

## PHY 272 GENERAL PHYSICS II 4 (3-3-0)

This is the second quarter of General Physics. This quarter covers the fundamental concepts of non-linear motion, heat energy, and electricity. The basic topics included are rotation, vibration, wave motion, fluids, thermal expansion, heat transfer, thermodynamics, electrostatics and current electricity. Prerequisite: PHY 271.

## PHY 273 GENERAL PHYSICS III

 4 (3-3-0)This is the final quarter of General Physics. This quarter covers the fundamental concepts of electromagnetism, light, and modern physics. The basic topics included are magnetism, electromagnetic induction, geometrical and physical optics, atomic and nuclear physics, relativity and quantum mechanics. Prerequisite: PHY 272.
PHY 281 ANALYTICAL PHYSICS I 4 (3-3-0)
This is the first course in the three-quarter Calculus based Physics sequence. This physics sequence is primarily designed for students majoring in the physical sciences, engineering, or mathematics. This course introduces the use of Calculus in developing the concepts of classical mechanics. Some of the topics included are measurement, vector analysis, kinematics, dynamics, and the conservation of energy and momentum. Prerequisite or Corequisite: MAT 251. Prerequisite: MAT 162.
PHY 282 ANALYTICAL PHYSICS II 4 (3-3-0)
This is the second course in the Calculus based physics sequence. This course develops the concepts of non-linear motion, fluids, and thermal energy. Some of the topics included are rotation, pressure, gas laws, thermal expansion, heat transfer, vibration, and wave motion. Prerequisite or corequisite: MAT 252. Prerequisite: PHY 281.

## PHY 283 ANALYTICAL PHYSICS III

 4 (3-3-0)This is the third course in the Calculus based physics sequence. This course develops the concepts of electromagnetism, optics, and modern physics. Some of the topics included are electrostatics, current electricity, geometrical optics, atomic physics, relativity, and quantum mechanics. Prerequisite: PHY 282.

## PHY 1101 APPLIED SCIENCE I

This course is an introduction to physical principles and their applications in industry. It includes topics such as measurement; properties of solids, liquids, and gasses; heat; and thermal energy. Prerequisite: MAT 1101 or ELC 1115.

This course is a continuation of PHY 1101. It includes topics such as static and current electricity, magnetism, electromagnetism, motion, force, energy, and power. Prerequisite: PHY 1101 or permission of instructor.

## PLUMBING AND PIPE FITTING

PLU 110 PIPING COMPONENTS AND INSTALLATION ....... 4 (2-2-3)
An introduction to piping materials, piping systems and pipefitting techniques. Identification and applications of various valves and fittings will be covered. Students will practice cutting, fitting and joining techniques with both metallic and nonmetallic piping materials.

## POLITICAL SCIENCE

## POL 251 AMERICAN NATIONAL GOVERNMENT 5 (5-0-0)

A survey course covering the organization and role of the executive, legislative and judicial branches of the Federal Government, emphasizing such areas as business, national security, civil rights, the relationship between the American people and their political institutions, the electoral process, interest groups, and the international commitments of the United States.

POL 261 STATE AND LOCAL GOVERNMENT ......................... 5 (5-0-0)
A study of the organization, functions and powers of state, county, and local governments in the United States, with emphasis on the state of North Carolina.
POL 271 INTERNATIONAL RELATIONS .................................. 3 (3-0-0)
A study of basic forces underlying the conduct of international relations and the formation of foreign policy, with emphasis on the role of the United States in its relations with major or areas of the world today.
POL 272 COMPARATIVE GOVERNMENT 3 (3-0-0)
An intensive study of the political structure of various nations, including some nations from Asia, Europe, Africa, Latin America, as well as the United States.
POL 275 THE AMERICAN PRESIDENCY .................................. 3 (3-0-0)
A survey of the American presidency from George Washington to the incumbent through an examination of the creation of the office, its powers and duties, its successes and failures, and its holders, both famous and infamous. Issues of the current campaign will also form a part of the discussion. Offered only during presidential election year.

## PSYCHOLOGY

PSY 150 CAREER AND LIFE PLANNING ................................. 3 (3-0-0)
This course is designed to broaden students' understanding of themselves, their potential and related factors which contribute to personal satisfaction. Emphasis is placed on clarifying current, values, interests, and personality styles so that these factors may be carefully considered in learning to set personal goals, develop career decision-making skills, and acquire techniques for self-management.

PSY 151 INTRODUCTION TO PSYCHOLOGY
A study of general psychology as a behavioral science. The course introduces the students to such areas as the history and systems of psychology, sensation, perceptions, learning, emotions, motivation, conditioning, personality, abnormal behavior, development (physical and mental), and social interaction with other people and society. The course will stress the development of a sensitivity toward an awareness of the complexity of human behavior, as well as the development of the basic vocabulary of psychology.

PSY 201 APPLIED PSYCHOLOGY
3 (3-0-0)
An examination of the problems in human relationships with special attention given to the development of those human relation skills necessary for effective interactions. Topics covered include: adjustment, attitude, communication, habits, listening, frustration, motivation, and the job-finding process.

PSY 203 ADOLESCENT PSYCHOLOGY
3 (3-0-0)
A course designed to present basic information about the adolescent period of human development. Physiological, developmental, and psychological characteristics are examined, with special focus on the identification and understanding of problems faced by adolescents in western culture. Prerequisite: PSY 151 or permission of instructor.

PSY 261 EDUCATIONAL PSYCHOLOGY ................................. 5 (5-0-0)
The study of the principles involved in learning and teaching. Major concepts and theories in knowledge acquisition will be covered with emphasis on their educational application. Topics included are: age level behavior characteristics, educational theories and their application to learning, motivation, individual differences, assessment, classroom control, and student/teacher relationships. Prerequisite: PSY 151 or permission of instructor.

PSY 262 HUMAN GROWTH AND DEVELOPMENT
5 (5-0-0)
An integrated study of the human life span structured to introduce basic concepts and principles of the stages of physiological and psychological development from conception to senescence. Emphasis is on personality development. Consideration is given to the common chronological processes of development and the sociological, biological, and cultural influences experienced throughout the life span. Prerequisite: PSY 151 or permission of instructor.

## PSY 264 ABNORMAL PSYCHOLOGY

5 (5-0-0)
A course designed to introduce the learner to theories relating to abnormality. Topics covered include: definitions and history, three perspectives on abnormal behavior, psychosis, suicide and depression, criminal behavior, psychosomatic disorders, brain disorders, mental retardation, and high risk groups. Prerequisite: PSY 151.

PSY 265 PSYCHOLOGY OF PERSONAL ADJUSTMENT ........ 5 (5-0-0)
The study of the adjustment process, focusing on contemporary challenges individuals must face and deal with as well as effective coping with the adjustment demands of everyday life. Topics covered include: theories of personality and behavior, selfconcept and self-esteem, stress and anxiety, human relationships and sexuality, social and environmental factors influencing personal adjustments, and directions for healthy personality functions.

A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to adjustment problems as a worker and a member of the general community.

## READING


#### Abstract

RDG 090 READING SKILLS 3 (1-4-0) This course is an individualized course for students who need to develop a foundation in word attack skills and word usage. Institutional credit only. RDG 092 DEVELOPMENTAL READING I .................................. 4 (3-2-0) Designed for the student who needs instruction in word recognition and/or basic comprehension skills before entering Reading 094. Instruction will be individualized. Institutional credit only. Prerequisite: RDG 090 or satisfactory placement test score in reading. RDG 094 DEVELOPMENTAL READING II 4 (3-2-0) Designed for the student who needs reading instruction, this course will emphasize development of effective study skills and improvement of reading rate, comprehension, and vocabulary. Institutional credit only. Prerequisite: RDG 092 or satisfactory placement test score in reading.


## RELIGION

REL 150 INTRODUCTION TO THE OLD TESTAMENT I ..... 3 (3-0-0)
The purpose of this course is to introduce the student to the major themes of the Old Testament which form the central motifs of the Bible. Therefore, the study will cover such themes as God's grace, man's sin, election, and covenant. The course is designed to give the student a survey of Biblical material from Genesis through II Samuel in order to offer a comprehensive view of the principles ideas developed in these first books of the Old Testament.
REL 151 INTRODUCTION TO THE OLD TESTAMENT II .... 3 (3-0-0)
The particular focus of this course will be a study of the prophets of the 7th and 8th century, B.C. As time permits, the course will touch on the Wisdom Literature such as Job, Psalms, Proverbs, etc. The course will seek to demonstrate that out of the matrix of history, Israel moves toward ethical monotheism which forms the basis of the New Testament. Themes of covenant, judgment, and grace will be further developed as the student understands the prophetic message emerging out of Israel's traumatic history.
REL 152 INTRODUCTION TO THE NEW TESTAMENT I ..... 3 (3-0-0) The purpose of this study is to introduce the student to the Gospel accounts and the Book of Acts. The course will discuss how the Gospels came into being, the Gospel understanding of the nature and person of Christ, the miracle stories, the question of evil in the new Testament, and the Atonement, as understood by the writers of
the Gospels. The study of the Book of Acts will deal with the response of the early Christian church to the Christ event and the transformation of the early church from a small group into a major religious body that would convey a faith that would move the world from B.C. to A.D.

## REL 153 INTRODUCTION TO THE NEW TESTAMENT II 3 (3-0-0)

The course will deal with Paul's understanding of issues such as justification by grace alone through faith, Christian freedom, the nature of Christ, and the parameters of the Christian life. As time permits, the course will examine the perception of God and the marks of the Christian life in the Johanine literature as well as the symbolism of the Book of Revelation, whose principle purpose was to give the infant Christian community hope in the midst of great trials and tribulations.

## REL 154 WORLD RELIGIONS <br> 3 (3-0-0)

This course surveys the religions of mankind, beginning with the early primitive religion of prehistoric man, and ending with contemporary developments in Eastern and Western Religion. Special emphasis is given to Hinduism, Buddhism, Zen, Taoism, Confucianism, Judaism, Christianity, and Islam. The purpose of this course is to enable the student to appreciate the faith of other people, and to become aware of major spiritual forces in the world today.

## REL 155 INTRODUCTION TO ETHICAL <br> DECISION MAKING

This course will have two major parts to it. Approximately one-third of the course will be devoted to a quick survey of various philosophical approaches to ethical decision making and a review of Christian thought. The remaining two-thirds of the quarter will be devoted to a study of contemporary ethical issues. The purpose of the course is to enable the student to see and understand the dimensions of ethical discourse in the context of society and religion and thereby make rational ethical decisions.

## SOCIAL SCIENCE

Social Science requirements can be selected from history, psychology, sociology, economics, political science, and geography courses as offered and according to individual course pre-requisites.

## SOCIOLOGY

SOC 151 INTRODUCTION TO SOCIOLOGY 5 (5-0-0)
This course begins with the definition and classification of things which pertain to human interaction. Definition of words and concerns with sociological concepts make it a typical introductory course. The scope of the course is wide enough so that most sociological problems are briefly mentioned.
SOC 155 UNDERSTANDING DIVERSITY 3 (3-0-0) Upon completion of this course, the student should be able to demonstrate an understanding of how cultural and ethnic differences evolve, and how they affect personality development. The student will explore his/her own cultural/ethnic background as a prerequisite for understanding people of difference. Family Systems

Theory will be utilized in the theoretical framework for understanding implications of diversity on health, education, and social services.

## SOC 261 COURTSHIP, MARRIAGE, AND THE FAMILY <br> 5 (5-0-0)

This course deals with the nature of self which is preparatory for a discussion of courtship. The emotional and down-to-earth problems of marriage are examined in considerable detail. Such problems as marital adjustment, divorces, re-marriages, careers and marriage, and in-laws are considered. The developing family is traced, and the necessity for maturity before marriage is considered. Prerequisite: SOC 151 or permission of the instructor.
SOC 271 SOCIAL PROBLEMS I .................................................. 3 (3-0-0)
This course introduces the sociological approach to viewing social problems, and surveys possible causes and solutions to the following problem areas; physical and mental health, variations in human sexuality, chemical dependency, crime and criminals, violence, affluence and poverty, and prejudice and discrimination. Prerequisite: SOC 151 is recommended.
SOC 272 SOCIAL PROBLEMS II ................................................ 3 (3-0-0)
This course reviews the sociological approach to social problems, and surveys possible causes and solutions to problems related to the following topics: sex roles, aging, family stress, big business, employment, urban living, population growth, and the environment. Prerequisite: SOC 151 is recommended.

## SPANISH

SPA 151 ELEMENTARY SPANISH I .......................................... 5 (5-0-0)
A beginning course for students who have never studied Spanish. Much oral work, drill in grammatical principles, written composition, conversation, dictation, and pronunciation are stressed. SPA 151 and 152 are equivalent to two years of high school Spanish. Senior colleges which required two years of foreign language for admission normally accept these two courses for entrance credit or for six semester hours elective credit.
SPA 152 ELEMENTARY SPANISH II ......................................... 5 (5-0-0)
A continuation of SPA 151. Prerequisite: One year of high school Spanish or SPA 151.
SPA 251 INTERMEDIATE SPANISH I ....................................... 5 (5-0-0)
A review of grammatical and linguistic principles covered through the 152 -level course and a study of more advanced grammar and composition and of cultural and literary reading selections. Prerequisite: SPA 152 or permission of instructor.
SPA 252 INTERMEDIATE SPANISH II ...................................... 5 (5-0-0) A continuation of Spanish 251, with an emphasis placed on analyzing and translating literary genres of several important writers of the Spanish-speaking world. Prerequisite: SPA 251 or permission of instructor.

## WELDING

WLD 110 TECHNIQUES OF WELDING ...................................... 3 (2-0-3)
The principles of oxyacetylene welding and cutting and shielded metal arc welding will be studied. The safe and proper methods for the setup and operation of welding equipment will be demonstrated by the instructor and practiced by students. A study of metals, gases, filler metals and welding machinery will also be included.

Involves the operation of AC and DC welding equipment. Studies are made of welding heats, polarities and electrodes used to join a variety of metal alloys by the arc welding process. Butt, fillet, corner, lap and v-butt welds in standard positions are made and tested. Safety practices are emphasized throughout the course.

## WLD 210 INERT GAS WELDING 4 (2-0-6)

Introduction and practical operations in the use of inert gas-shielded arc welding methods (MIG/TIG). A study will be made of the safe operation of equipment with practice in the standard positions.

## WLD 1101 BASIC OXYACETYLENE WELDING

 2 (1-0-3)Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling, adjusting, and operating the welding equipment. Practice will be given in surface welding, bronze welding, fillet welding, and flame-cutting methods applicable to mechanical repair work.

## WLD 1110 OXYACETYLENE WELDING <br> 4 (2-0-6)

Introduction to the history of oxyacetylene welding; the principles of welding, nomenclature of equipment, and assembly of the unit. Welding procedures, and practice will consist of carrying a puddle; making surface, seam, groove, and fillet welds in the flat horizontal, vertical, and overhead positions. Brazing and bronze welding are also covered. Safety is stressed throughout the course.

## WLD 1111 OXYACETYLENE CUTTING

2 (1-0-3)
This course will include a study of operation principles, component function and care, and proper set-up and adjustment of the oxyacetylene flame cutting equipment. Practices are directed toward the student acquiring skills in such procedures as straight line and shape cutting, beveling, hole piercing, and pipe cutting. Throughout the course safety will be emphasized.

## WLD 1112 ARC WELDING FUNDAMENTALS

4 (2-0-6)
Upon completion of this course, students should be able to understand the basic electrical principles of arc welding; have a working knowledge of the electrode classification system and make proper electrode selections; operate an AC transformer, rectifier, and DC motor generator are welding machine; weld different types of joints in the flat position; observe all shop safety precautions related to electric are welding.

## WLD 1113 ARC WELDING TECHNIQUES

4 (2-0-6)
Upon completion of this course, students should be able to weld various joints in all positions; make intermittent and multi pass welds; visually inspect and test welds to determine degrees of proficiency; observe all shop safety precautions related to electric arc welding. Pre or corequisite: WLD 1112 or permission of instructor.

## WLD 1114 GAS METAL ARC WELDING

 4 (2-0-6)A course designed to provide the student with an understanding of the gas metal arc welding process. Topics will include principles of operation, machine set-up and adjustment, selection of consumables, and welding techniques. Practice will include seam, fillet, and groove welds in the four basic welding positions.

## WLD 1116 FUNDAMENTALS OF GAS TUNGSTEN ARC WELDING 4 (2-0-6)

Upon completion of this course, students should be able to understand the electrical, physical, and chemical principles of TIG welding; demonstrate a working knowledge of equipment operation; weld different types of joints in the flat position; observe all shop safety precautions related to TIG welding.

## WLD 1117 TECHNIQUES OF GAS TUNGSTEN ARC WELDING <br> 4 (2-0-6)

Upon completion of this course, students should be able to specify welding heat ranges; select tungsten electrodes and ceramic cups in proportionate sizes; determine size and alloy of filler metals; observe all shop safety precautions related to TIG welding. Pre or corequisite: WLD 1116 or permission of instructor.

WLD 1118 INTRODUCTION TO PIPE WELDING ...................... 2 (1-0-3)
A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed positions using the shielded metal arc welding process according to Section IX of the ASME code. Prerequisite: WLD 1113.

## WLD 1122 COMMERCIAL AND INDUSTRIAL PROCEDURES <br> 4 (2-0-6)

Upon completion of this course, students should be able to demonstrate skills developed through simulated industrial processes; sketch, requisition material, lay out, fabricate, and weld on assigned project; repair worn and/or broken parts employing the available welding processes; continue to stress safety precautions employed in the welding industry. Prerequisites: WLD 1111, WLD 1113, WLD 1114, WLD 1117, and WLD 1118, or permission of instructor.

## WLD 1123 COMMERCIAL AND INDUSTRIAL PRACTICES .... 4 (2-0-6)

Upon completion of this course, students should be able to become more proficient in industrial fabrication processes; make a metallurgical analysis of worn and/or broken parts to be repaired; select the best welding process and procedure to repair worn and/or broken parts; utilize safety precautions related to the welding fabrication industry. Pre or corequisite: WLD 1122.

WLD 1125 STRUCTURAL CERTIFICATION PRACTICE 2 (1-0-3)
Upon completion of this course, students should be able to: become familiar with AWS D1.1 Structural Code and its requirements; comply with established certification standards; weld various structural joints in numerous positions using electric ARC and gas metal ARC welding processes; execute safety precautions while using welding equipment and other shop tools. Prerequisite: WLD 1111, WLD 1113, WLD 1114, or permission of instructor.

[^0]The standard methods for mechanical testing of welds. Introduction to the various types of tests and testing procedures. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched bend, tee-bend, non-destructive, Vnotch, Charpy impact. Prerequisite: WLD 1112, 1113, 1114, 1116, 1117, 1118, or permission of instructor.






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[^0]:    WLD 1126 PIPE CERTIFICATION PRACTICE 2 (1-0-3)
    Upon completion of this course, students should be able to: become familiar with the ASME Code for pipe and pressure vessels; comply with established certification standards; make pipe welds in diverse positions required for particular certifications; demonstrate safety precautions pertaining to welding and fabrication equipment. Prerequisites: WLD 1111, WLD 1113, WLD 1114, WLD 1117, and WLD 1118, or permission of instructor.

