

## COASTAL CAROLINA COMMUNITY COLLEGE Jacksonville, North Carolina

### PURPOSE

The purpose of Coastal Carolina Community College is to provide specialized occupational education to fill the manpower needs in our society, and to provide a two-year college-transfer program, and to provide for the fullest possible development of the potential of each student so that he may attain effective citizenship in his society.

### **OBJECTIVES**

The major objectives of Coastal Carolina Community College are as follows:

- 1. To provide expanded educational opportunities from the first grade through high school and beyond high school for thousands of young people and adults who would not otherwise continue their education.
- 2. To provide relatively inexpensive, nearby educational opportunities for high school graduates, non-high school graduates, and adults.
- 3. To provide college transfer programs, consisting of the first two years of regular college studies.
- 4. To provide technical programs, preparing students for jobs in industry, agriculture, business, government, and service occupations as the need exists within the community.
- 5. To provide vocational programs preparing students for jobs requiring varying levels of ability and skill.
- 6. To provide occupational education programs for employed adults who need training or re-training, or who can otherwise profit from the program.
- 7. To provide courses that will meet the general adult and community service needs of the people of the community.
- 8. To provide a program of guidance and instruction designed to help all students understand themselves better and make wiser choices of both vocations and avocations so that they may become effective and productive members of a democratic society.
- 9. To provide an environment which fosters free and open communication among all members of the college community and within the community at large.

### CATALOG

## ANNOUNCEMENT OF COURSES AND PROGRAMS FOR

1972 - 1973



# COASTAL CAROLINA COMMUNITY COLLEGE

222 GEORGETOWN ROAD JACKSONVILLE, NORTH CAROLINA 28540

**TELEPHONE: 455-1221** 

FEBRUARY 1972

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# GENERAL INFORMATION



### COLLEGE CALENDAR 1972-73

### SUMMER QUARTER (55 days)

FALL QUARTER (55 days)

JUNE	
6	Registration
7	Classes Begin
13	Last day to register or add a course
27	Last day to withdraw from class without penalty
JULY	
4	Holiday
AUGUST	
3	Last day to withdraw from a class
21 - 22 - 23	Summer Quarter Final Exams
23	Summer Quarter Ends
25	Graduation

AUGUST

31 Orientation

SEPTEMBER

4 Holiday

5-6 Registration

7 Classes Begin

13 Last day to register or add a course

- 27 Last day to withdraw from a class without penalty NOVEMBER
- 2 Last day to withdraw from a class without grade of F 20-21-22 Fall Quarter Final Exams
- 22 Fall Quarter Ends

23-24 Thanksgiving Holiday

### WINTER QUARTER (55 days)

NOVEMBER

30 Registration

DECEMBER

1 Registration

4 Classes Begin

8 Last day to register or add a course 18 Holiday Begins (9:30 p.m.)

JANUARY

2 Classes resume (8:00 a.m.)

5 Last day to withdraw from class without penalty

FEBRUARY

10 Last day to withdraw from class without grade of F 28 Winter Quarter Final Exams

MARCH

1-2Winter Quarter Final Exams2Winter Quarter Ends

### SPRING QUARTER (55 days)

MARCH	
8-9	Registration
12	Classes Begin
16	Last day to register or add a course
30	Last day to withdraw from class without penalty
APRIL	
20-23	Holiday
MAY	
9	Last day to withdraw from class without grade of F
25 - 28 - 29	Spring Quarter Final Exams
29	Spring Quarter Ends

### THE COLLEGE

### HISTORY

The State of North Carolina recognized the need to provide additional post-high school vocational opportunities as early as 1957. The development of Industrial Education Centers was approved by the General Assembly and by 1962, twenty (20) institutions were approved.

In the fall of 1963, the Onslow County Board of Education and the Superintendent of Schools, Mr. J. Paul Tyndall, asked the Onslow County Commissioners to purchase forty (40) acres of property on U. S. Highway 17 for the establishment of an Industrial Education Center. The newly established Industrial Education Center was a unit of the Lenoir County Technical Institute.

The untiring efforts of Representative Hugh A. Ragsdale, Representative William D. Mills and Senator Carl Venters secured an appropriation from the 1965 General Assembly to establish a separate institution for Onslow County. The North Carolina State Board of Education approved the Onslow County Industrial Education Center on July 1, 1965.

The continuous increase in enrollment of the Industrial Education Center gave evidence of the wide and varied needs of the area. Local support was necessary for the growing institute. The people of Onslow County, by referendum in the fall of 1965, voted for a seven cents per hundred dollars evaluation on property for the center. The Board of Trustees, realizing that a technical institute could more adequately provide the vocational and technical education opportunities for the area, requested that the State Board of Education grant technical institute status to the center. Onslow Industrial Education Center became Onslow Technical Institute on May 4, 1967.

A rapidly increasing enrollment and continued educational demands on Onslow Technical Institute encouraged the Board of Trustees to request a community college. Onslow Technical Institute was granted community college status July 1, 1970 and became Coastal Carolina Community College.

### ACCREDITATION

Coastal Carolina Community College is approved by the North Carolina Department of Community Colleges and the State Board of Education as specified in Chapter 115-A of the General Statutes of North Carolina. The college is a candidate for membership with the Southern Association of Colleges and Schools and will be visited by a Southern Association team in April 1972 to evaluate the college in preparation for full accreditation.

#### PHYSICAL FACILITIES

Coastal Carolina Community College is located on a fifty (50) acre campus at 222 Georgetown Road just outside the Jacksonville city limits. In addition to the four existing buildings, the college has developed long range plans to establish a new seventy-five (75) acre campus on Western Boulevard. Construction is underway on a modern classroom building at this location.

### LIBRARY

The library is located in the east wing of the administration building with a seating capacity of eighty (80) readers. This year we will have a split campus with study areas on both campuses.

Present library holdings include approximately 11,000 volumes in general, technical and vocational fields. The library subscribes to 250 periodicals. We have 700 reels of microfilm. The library staff consists of two professional librarians, a library assistant, a secretary and student help.

The library also houses the audio-visual equipment.

The library hours are from 8 a.m.-9:30 p.m. Monday through Thursday and 8 a.m.-5 p.m. Friday.

#### BOOKSTORE

The college operates a bookstore where students may purchase books and supplies.

### VISITORS

Visitors are always welcome at Coastal Carolina Community College. The Student Personnel Office will provide guide service for groups or individuals on weekdays between 8:30 a.m. and 5:00 p.m. The college is open until 9:30 p.m. Monday through Thursday and 8:00 a.m. until 5:00 p.m. Friday. Visitors are welcome during these hours. Questions about the college and its programs will be answered by personnel from the Student Personnel Office.

#### STATEMENT OF POLICY

Coastal Carolina Community College issues this catalog for the purpose of furnishing students and other interested persons with information about the college and its programs. The provisions in this publication are not to be regarded as an irrevocable contract between the student and Coastal Carolina Community College. The college reserves the right to change any provision or requirement at any time within the student's term of residence, or to add or withdraw course offerings.

The contact hours shown in this publication are minimal. It is the policy of the college to permit students to enroll in additional subjects and laboratory work beyond those shown.

### **ADMISSIONS INFORMATION**

### **ADMISSIONS POLICY**

Coastal Carolina Community College maintains an "open door" policy for all applicants who are high school graduates or who have reached their eighteenth (18) birthday, and whose high school class has graduated. The college serves all students regardless of race, color, creed, sex, or national origin. Selective placement of individual students in the different curricula within the college is determined by the admissions officer, within the guidelines established by the State Board of Education and the Department of Community Colleges for each curriculum and course offered.

### **ADMISSIONS REQUIREMENTS**

An applicant for admission to the Practical Nursing Curriculum, Dental Assistant Curriculum and all college transfer and technical curricula must be a high school graduate or possess or have GED scores to qualify for a high school equivalency certificate issued by the North Carolina Department of Public Instruction or by the Department of Public Instruction of any one of the United States.

An applicant for a vocational program (except practical nursing and dental assistant as noted above) who has reached his eighteenth (18) birthday and has the ability as indicated on placement tests to make advancement in the program selected, may be admitted with a minimum of eight (8) units of accredited secondary education or its equivalent. Applicants are admitted upon the recommendation of the admissions officer.

A student desiring to transfer to Coastal Carolina Community College must be able to meet the admission requirements in effect at the time of his application. If the student is ineligible to return to the institution last attended, he may be admitted on probation to the college at the discretion of the Dean of Student Affairs.

Any adult is eligible to attend adult education classes offered by the college on campus or at any of the several locations in the college service area. Persons admitted to class must have reached their eighteenth (18) birthday and their regular public school classes must have graduated. Persons who are not eighteen (18) years of age may be admitted for special programs when approved by the appropriate secondary school officials and college officials.

### **ADMISSION PROCEDURE**

Except for the continuing adult education programs, the admission procedure requires that the student:

1. submit an application,

- 2. submit a transcript of all previous education beyond the elementary school or GED scores of equivalency certificate,
- 3. report to the college for admissions counseling and appropriate testing (appointment schedules will be mailed as applications are processed.)

### **TEN-HOUR REGULATION**

Adult students may be admitted under special provision which allows them to take up to ten (10) quarter hours of credit courses before completing admission requirements. However, all admission requirements must be met by the time the student has completed ten (10) quarter hours of work if credit is to be granted.

### TRANSFER RESPONSIBILITY

The college staff will cooperate with each student in planning a transfer program. However, it is the responsibility of each student to determine that courses and credit will transfer to the receiving institution.

The acceptance of courses taken at Coastal Carolina Community College is determined solely by the institution to which the student transfers.

The Coastal Carolina Community College transfer student will have little difficulty in completing his transfer satisfactorily if he:

- 1. decides early which senior institution to attend (Contact the college for recommendations concerning appropriate courses),
- 2. obtains a current copy of the catalog of that college and studies its entrance requirements and its suggested freshman and sophomore program in the major field in which he is interested,
- 3. confers with his faculty advisor or guidance counselor at Coastal Carolina Community College about his transfer plans,
- 4. confers, either by letter or by personal interview, with an admissions officer at the senior institution for further information about curriculum and transfer regulations,
- 5. checks with his advisor or counselor a quarter or two before transfer to be certain that all requirements will be met and all regulations observed to the satisfaction of the senior institution.

### SCHEDULES OF TUITION AND FEES

### **RESIDENCE STATUS FOR TUITION PAYMENT**

- 1. General: The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained his domicile (legal residence) in North Carolina for at least the twelve months next preceding the date of first enrollment of re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.
- 2. Minors: A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of his first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.
- 3. Adults: An adult is any person who has reached the age of eighteen years. Persons, eighteen or more years of age at the time of first enrollment in an institution of higher education, are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.
- 4. Married Students: The legal residence of a wife follows that of her husband, except that a woman currently enrolled as an instate student in an institution of higher education may continue as a resident even though she marries a nonresident. If the husband is a nonresident and separation or divorce occurs, the woman may qualify for in-state tuition after establishing her domicile in North Carolina for at least twelve months as a nonstudent.

- 5. Military Personnel: No person shall lose his in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces may obtain instate residence status for himself, his spouse, or his children after maintaining his domicile in North Carolina for at least the twelve months next preceding his or their enrollment or re-enrollment in an institution of higher education in this state.
- 6. Aliens: Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.
- 7. **Property and Taxes:** Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.
- 8. Change of Status: The residence status of any student is determined as of the time of his first enrollment in an institution of higher education in North Carolina except:
  - (a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-student for at least twelve consecutive months and
  - (b) In the case of a resident who abandons his legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

9. **Responsibility of Students:** Any student or prospective student in doubt concerning his residence status must bear the responsibility for securing a ruling by stating his case in writing to the Dean of Student Affairs. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the Dean of Student Affairs of his circumstance in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

### **TUITION**

In accordance with the basic concept of comprehensive community colleges, all fees are nominal and are held to a minimum. Tuition per quarter is as follows:

Transfer Program Students (in-state)

12 quarter hours or more (full-time)	\$42.00
Part-time students per quarter hour	3.00

### **FEES**

Activity Fee (per quarter)\$	4.00
Late Registration Fee	5.00
Graduation Fee*	10.00
Insurance Fee per year (optional)	3.00

\*The graduation fee of \$10.00 is payable at the student's next to last registration before completing course requirements for graduation. The fee covers the cost of the diploma and cap and gown rental. It is not refundable.

### **TUITION REFUND POLICY**

Tuition refunds will be made only if the student is, in the judgment of the administration, compelled to withdraw for unavoidable reasons. In such cases two-thirds (2/3) of the student's tuition may be refunded, providing the student withdraws within ten (10) calendar days after the first day of classes. The activity fee is not refundable.

Refunds will not be considered for tuitions of five dollars (\$5) or less. In cases where a course or curriculum fails to materialize, all the student's tuition shall be refunded.

The refund policy is subject to change at the discretion of the State Board of Education.

### ACADEMIC REGULATIONS

### REGISTRATION

All students are urged to register on the days designated. All late registrants will be charged an additional fee of five dollars (\$5.00). Students who enter after classes have begun are at a disadvantage and are responsible for all work prior to their entrance.

### **QUARTER HOURS**

The unit of measurement for credit purposes is the quarter hour. One (1) quarter hour represents the credit earned in a course that is scheduled for one (1) class hour per week for a quarter of eleven (11) weeks, except that for laboratory work, two (2) or more class hours in the laboratory are required for a single quarter hour of credit. Most courses meet three (3) hours a week and have a credit value of three (3) quarter hours. Generally a student will have to spend two (2) clock hours in preparation for one (1) class hour.

### COURSE LOAD

The normal load for a student enrolled in the transfer program is sixteen (16) quarter hours including such activities as physical education. A normal load for a technical or vocational student will be prescribed by the individual programs as listed. A college transfer student may not enroll for more than eighteen (18) credit hours unless he has the approval of the Dean of Academic Affairs.

Each student should adjust his course load in accordance with his particular situation involving such factors as academic aptitude, educational background, health, and hours of employment.

### AUDITING COURSES

Students who wish to audit courses must register through regular channels. Auditors receive no credit but are encouraged to attend classes regularly and participate in class discussions. Auditors will be charged the same fee as students taking courses for credit. An audit cannot be changed to credit or credit to audit after the deadline for adding courses.

### ADDING AND DROPPING COURSES

A student who finds it necessary to drop or add a course should secure a "drop-add" form from the Student Personnel Office and obtain the permission to drop from the Dean of Student Affairs and the instructors involved. See the School Calendar for dates. No course may be added after one (1) week of classes (five [5] school days). No course may be dropped after three (3) weeks (fifteen [15] school days) unless approval of the Dean of Student Affairs is obtained.

For courses dropped within the first fifteen (15) school days, no grade will be reported. For courses dropped after the drop period, the grade of "WP" or "WF" will be reported according to the student's academic standing. The "WF" will be treated as an "F" in computing grade point averages.

A student may not withdraw from the college within fifteen (15) days of the end of a regular quarter for reasons other than those of a documented medical or emergency nature.

A student who leaves college after the first fifteen (15) school days without obtaining an official withdrawal will receive an "F" for each course regardless of his academic standing at the time of his departure.

A grade of "I" may be given at the instructor's discretion to the student who has not successfully mastered course content but by attendance and concerted effort shows that he can attain mastery if given more time. The student is expected to repeat the course the following quarter or make up assigned work to remove the incomplete grade. The "I" grade will not be used in computing grade point averages. It must be removed during the next quarter in which the student is enrolled or the "I" automatically becomes an "F".

### WITHDRAWAL FROM THE COLLEGE

A student who finds it necessary to withdraw from the college must do so through the Student Affairs Office. The student will complete a withdrawal form and obtain the signature of the various officials designated on the form.

If a student withdraws from the college within the first fifteen (15) school days of a regular quarter no grade will be reported.

A student who withdraws from the college after the first fifteen (15) school days of a regular quarter will receive a grade of "WP" or "WF" according to his academic standing. The "WF" will be given the same weight as the "F" in computing grade point averages.

A student may not withdraw from the college within fifteen (15) days of the end of a regular quarter for reasons other than those of a documented medical or emergency nature.

A student who leaves college after the first fifteen (15) school days without obtaining an official withdrawal will receive an "F" for each course regardless of his academic standing at the time of his departure.

### TRANSFER OF CREDITS

Educational work completed by students in other accredited institutions may, where applicable, be credited toward graduation requirements at Coastal Carolina Community College. In order to be eligible for graduation the student is required to attend full time for a minimum of two (2) quarters. The maximum credit transferable from another institution is sixty-six (66) quarter hours of academic study.

#### **CREDIT FOR CORRESPONDENCE WORK**

Ten (10) quarter hours of credit for correspondence courses applicable to courses offered at Coastal Carolina Community College may be accepted as transfer toward the Associate in Arts Degree.

### UNITED STATES ARMED FORCES INSTITUTE

Up to thirty (30) quarter hours credit of United States Armed Forces Institute course work may be accepted, if determined appropriate and applicable to courses offered at Coastal Carolina Community College, as transfer toward the Associate in Arts Degree.

### ATTENDANCE

Coastal Carolina Community College is committed to the principle that class attendance is an essential part of its educational program. While urging regular class attendance, the College at the same time desires to allow students an opportunity to develop a sense of personal responsibility toward their studies. In keeping with these convictions, the following policy has been established.

At the beginning of each course, the instructor will announce his own attendance requirements. It is the responsibility of the student to understand and to abide by these requirements. Each student is accountable for any work missed because of class absence. Instructors, however, are under no obligation to make special arrangements for students who are absent. When class absence seems to be contributing to a student's unsatisfactory work or when the student is not fulfilling the attendance requirements, the instructor will warn the student and report that warning to the Dean of Student Affairs. If a student incurs other absences in a course after having been warned, he may be dropped from the course with a failing grade. When a student has been dropped from a course, he may, with the permission of the Dean of Student Affairs, appeal his case to the Attendance Committee for a final decision.

Veterans Administration regulations require that students who are going to school under the G.I. Bill and who are in a vocational curriculum must maintain 30 contact hours per week to receive full benefits. G. I. Bill students in the Developmental Studies for Business program must maintain 25 contact hours per week for full benefits.

### **GRADING SYSTEM**

Official grades are issued for each student at the end of each quarter. Students enrolled in curriculum programs will be graded by the letter-grade system shown below.

Grade	Numerical Grade	Quality Points Per Quarter Hour
A—Excellent	93-100	4
B-Good	85-92	3
C—Average	77-84	2
D—Below Average	70-76	1
F—Unsatisfactory	Below 70	0

I—Incomplete: This indicates failure to complete certain course requirements because of extenuating circumstances. All incompletes must be removed before the end of the succeeding term or the grade becomes an automatic "F".

- WP—Withdrew Passing: Student dropped the course, but had a passing average at the point of withdrawal.
- WF—Withdrew Failing: Student dropped the course, and had a failing grade average at the point of withdrawal. This grade will be considered as an "F" with notation on transcript that course was not completed.

No grade will be reported if a student withdraws from school or from a course within the first fifteen (15) school days of a regular quarter.

### STUDENT CLASSIFICATION

Full-time Student—a student enrolled with twelve (12) or more quarter hours of credit.

Part-time Student—a student enrolled with fewer than twelve (12) quarter hours of credit.

Freshman—a student who has completed with a passing grade less than forty-five (45) quarter hours of credit.

Sophomore—a student who has completed with a passing grade forty-five (45) or more quarter hours of credit.

### DEAN'S LIST

At the close of each quarter, regular students who are carrying a full load (courses leading to a diploma or degree) will be included on the Dean's List, provided they have no grade lower than a "C" and provided that the quality point average of all their grades for that quarter is 3.0 or better.

### ACADEMIC PROBATION AND DISMISSAL

Students failing to maintain the stated cumulative quality point average will be considered on academic probation and may be required to limit their course load. A student may be asked to withdraw from a regular curriculum program if his quality point average drops below the average on the chart.

Any full-time student who fails to pass at least three credit hours during any term is subject to academic dismissal for one term regardless of his quality point standing.

### QUALITY POINT AVERAGE TO DETERMINE CONTINUANCE IN SCHOOL

#### TWO-YEAR CURRICULUM—COLLEGE TRANSFER DIVISION

	Two-TEAR CORRECTION—COLLEGE TRANSFER DIVISION			
All Quarter Hours Credit Attempted	Quality Point Average to Continue in Curriculum	Quality Point Average Below Which Student Is on Academic Probation		
1-16	No Requirement to Begin Fall Quarter	End Fall Quarter 1.25		
17-32	To Begin Winter Quarter .75	End Winter Quarter 1.50		
33-48	To Begin Spring Quarter 1.00	End Spring Quarter 1.85		
49-64	To Begin Sophomore Year 1.85	End Fall Quarter 1.95		
65-80	To Begin Winter Quarter 1.90	End Winter Quarter 2.00		
81-Over	To Begin Spring Quarter 2.00	End Spring Quarter 2.00		
	To Graduate—2.00			
TWO-YE	AR CURRICULUM—OCCUP.	ATIONAL DIVISION		
All Quarter Hours Credit	Quality Point Average to Continue in	Quality Point Average Below		
Attempted	Curriculum	Which Student Is on Academic Probation		
1				
Attempted	Curriculum No Requirement to Begin	Academic Probation End Fall Quarter		
Attempted 1-20	Curriculum No Requirement to Begin Fall Quarter To Begin Winter Quarter	Academic Probation End Fall Quarter 1.25 End Winter Quarter		
Attempted           1-20           21-40	Curriculum No Requirement to Begin Fall Quarter To Begin Winter Quarter .25 To Begin Spring Quarter	Academic Probation End Fall Quarter 1.25 End Winter Quarter 1.50 End Spring Quarter		
Attempted           1-20           21-40           41-62	CurriculumNo Requirement to Begin Fall QuarterTo Begin Winter Quarter .25To Begin Spring Quarter 1.00To Begin Summer Quarter	Academic Probation End Fall Quarter 1.25 End Winter Quarter 1.50 End Spring Quarter		
Attempted           1-20           21-40           41-62           SUMMER	CurriculumNo Requirement to Begin Fall QuarterTo Begin Winter Quarter .25To Begin Spring Quarter 1.00To Begin Summer Quarter 1.50To Begin Sophomore Year	Academic Probation End Fall Quarter 1.25 End Winter Quarter 1.50 End Spring Quarter 1.85 End Fall Quarter		
Attempted           1-20           21-40           41-62           SUMMER           63-79	CurriculumNo Requirement to Begin Fall QuarterTo Begin Winter Quarter .25To Begin Spring Quarter 1.00To Begin Summer Quarter 1.50To Begin Sophomore Year 1.85To Begin Winter Quarter	Academic ProbationEnd Fall Quarter1.25End Winter Quarter1.50End Spring Quarter1.85End Fall Quarter1.95End Winter Quarter		

UNE-TEAR CURRICULUM-OCCUTATIONAL DIVISION		
All Quarter Hours Credit Attempted	Quality Point Average to Continue in Curriculum	Quality Point Average Below Which Student Is on Academic Probation
1-15	No Requirement to Begin Fall Quarter	End Fall Quarter 1.25
16-38	To Begin Winter Quarter 1.00	End Winter Quarter 1.50
39-51	To Begin Spring Quarter 1.70	End Spring Quarter 2.00
52 +	To Begin Summer Quarter 2.00	End Summer Quarter 2.00
	To Graduate—2.00	

ONE-YEAR CURRICULUM—OCCUPATIONAL DIVISION

### ACADEMIC PROBATION

A student who fails to meet the minimum academic requirements will be placed on probation for the next quarter of attendance. Students transferring from other colleges or universities must meet the same requirements as other students. They may be admitted under probation if they are below the minimum requirements as outlined.

During the probationary period a student must maintain an overall "C" average or be suspended from his program for one (1) quarter.

### ACADEMIC SUSPENSION

A student who fails to meet the minimum academic requirements while on probation may be suspended from his program of study for the following quarter. However, a student may enroll in a more appropriate program. A student may also enroll in summer sessions to make up deficiencies to be reinstated in his program.

If a student wishes to return to the college after his suspension has expired, he will be placed under previous probationary requirements unless deficiencies were removed during the summer session.

#### PARKING

Students are expected to drive carefully and courteously and to abide by all North Carolina traffic regulations while on the campus.

The parking lot in the front of the main building of the college is reserved for faculty and staff. Student cars parked in front of the building or in other unauthorized areas will be given a parking ticket. The first violation of this regulation will incur a warning for the student, for a second violation a two dollar (\$2.00) fine, for the third violation a fine of three dollars (\$3.00). Report all tickets to the Business Office. If he fails to pay the parking ticket, the student will be subject to disciplinary action. Car registration and display of a Coastal Carolina Community College sticker is required. All students are to register their cars at registration and receive a parking permit decal. Additional decals may be received in the Business Office.

### TRANSCRIPT

One transcript will be sent free of charge upon written request from the student.

### POLICIES RELATING TO DISRUPTIVE CONDUCT

Coastal Carolina Community College honors the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned. It is equally, clear, however, that in a community of learning, willful disruption of the educational process, destruction of property and interference with the rights of other members of the community cannot be tolerated. Accordingly it shall be the policy of the college to deal with such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

### **DEFINITION OF DISRUPTIVE CONDUCT**

Any student, who with the intent to obstruct or disrupt any normal operation or function of the college or any of its components, engages, or invites others to engage, in individual or collective conduct which destroys or significantly damages any college property, or which impairs or threatens impairment of the physical well-being of any member of the college community or which because of its violent, forceful, threatening or intimidating nature or because it restrains freedom of lawful movement, or otherwise prevents any member of the college, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion or dismissal from the college.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the college or any of its components: (1) occupation of any college building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any college building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any college building or property, or the property of others on college premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive or inflammable material in any college building or on any college campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any college class or activity or of any lawful meeting or assembly in any college building; (6) blocking normal pedestrian or vehicular traffic on or into any college campus.

### NARCOTICS, ALCOHOLIC BEVERAGES, AND STIMULANT DRUGS

A student shall not knowingly possess, use, transmit, or be under the influence of any narcotic drug, hallucinogenic drug, amphetamine, barbiturate, marijuana, alcoholic beverage, or intoxicant of any kind on the college campus during and immediately before or immediately after school hours, or at any other time when the college is being used by any group, or off the college campus at a college activity, function, or event.

Use of a drug authorized by a medical prescription from a registered physician shall not be considered a violation of this rule.

### CHEATING

Cheating is against the rules of the college.

### DISCIPLINARY PROCEDURES

Cases involving misconduct by students will be handled according to the following procedures in order to insure "due process":

- 1. The person accused will be provided written notice from the disciplinary action committee of the charges against him.
- 2. The person accused will be provided a hearing by the Disciplinary Action Committee.
- 3. The person accused may inspect all affidavits, documents, and other evidence to be used against him.
- 4. The person accused may have the assistance of legal counsel if desired. (This does not mean that such counsel will be provided at public expense.)

### **RIGHT OF APPEAL**

Any student found guilty by any committee or other school authority of violating any provision, regulation or policy of the college; or who is placed on academic probation or suspension shall have the right to appeal the finding and/or discipline imposed upon him to the president of the college. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds: (1) that the finding is not supported by substantial evidence; (2) that a fair hearing was not accorded the accused; or (3) that the discipline imposed was excessive or inappropriate.

It shall be the responsibility of the president to make prompt disposition of all such appeals, and his decision shall be rendered within thirty (30) days after receipt of the complete record on appeal.



### STUDENT PERSONNEL SERVICES

### COUNSELING

Professionally trained counselors will assist students at Coastal Carolina Community College with educational, occupational and personal problems. Counseling services are available to every student from pre-admission through graduation. Students are encouraged to seek guidance from the counselors when the need exists.

### FACULTY ADVISING

Each full-time student is assigned to a faculty advisor. The advisor assists the student in planning his educational program, registration, and adjustments to college life. Students should periodically check with their advisor concerning their educational progress.

### **ORIENTATION**

New students are expected to participate in an orientation program designed to promote rapid and sound adjustment to the educational philosophy, program, and standards of the college.

### HOUSING

The college does not have dormitory facilities. Students wishing to live away from home must arrange their own living accommodations. However, the Student Personnel Office will assist in any way possible to help students find housing accommodations. The college does not assume responsibility for the supervision of housing.

#### STUDENT HEALTH

The college does not provide medical, hospital, or surgical services. Medical services are available at the emergency room of Onslow Memorial Hospital. A doctor is on call twenty-four (24) hours a day at the hospital.

Students are encouraged to carry accident insurance which is made available through the college at minimum cost.

#### PLACEMENT

Placement services are available through the Student Affairs Office. Students are encouraged to use these services.

#### SELECTIVE SERVICE

Students can secure Selective Service System deferment forms from the Dean of Student Affairs' office.

### FINANCIAL AID

Coastal Carolina Community College offers a full program of financial aid including scholarships, grants, loans, and jobs. In order to be considered for aid, a student should make application at least four (4) weeks prior to the registration date of the quarter for which he wishes aid. Students should contact the Financial Aid Officer for additional information on any of the programs listed.

### SCHOLARSHIPS AND GRANTS

The Educational Opportunity Grants Program is funded by the Federal Government and is for students of exceptional financial need who without this grant would be unable to continue their education. Grants of up to \$1,000 for each of four (4) years of undergraduate study are available. Those selected for an Educational Opportunity Grant will receive additional financial aid under one of the other programs.

### LOCAL:

Local Scholarships are made available by the following organizations:

Coastal Carolina Community College Women's Club American Business Women's Association Janerion Chapter El Rio Neuvo Chapter Jacksonville Business and Professional Women Club Onslow County Hospital Auxiliary Staff Noncommissioned Officers Wives' Club Rotary Club Practical Nursing Scholarship Onslow County Medical Society Carlyle W. Blomme (Civil Tech.) Chief Petty Officers Wives' Club Ralph Giddings (Civil Tech.)

Local loans are made available by the following organizations:

Jacksonville Kiwanis Club Jacksonville Department Store New River Pharmacy S. E. Wainwright The Gene Johnson Memorial Loan Auto Mechanics Loan

The Financial Aid Officer can furnish additional information on these loans and scholarships.

### LOANS

The National Defense Student Loan Program is funded by the Federal Government and makes it possible for qualified students to borrow up to \$1,000 each year for five (5) years as an undergraduate and up to \$2,500 each year for four (4) years as a graduate or professional student. The maximum total loan, combining all years of undergraduate and graduate study, is \$10,000. Repayment begins nine (9) months after the student terminates at least half-time study and may extend over a ten (10) year period. Interest charges of three (3) percent also begin at the start of the repayment period. No repayment is required and no interest is charged for any period up to three (3) years during which the student is serving in the Armed Forces, Peace Corps, or VISTA. The Program also provides for partial or total loan cancellation for students who enter the field of teaching.

The Insured Student Loan Program allows residents of North Carolina who are enrolled full-time to borrow up to \$1,500 per academic year through College Foundation, Inc., with funds provided by the North Carolina banking and life insurance industries. Loans are insured by the State Education Assistance Authority; and under certain circumstances, the Federal Government will pay the interest during the study and grace periods.

The James E. and Mary Z. Bryan Foundation, Inc. is a student loan plan which allows residents of North Carolina enrolled fulltime in undergraduate programs to borrow up to \$1,500 per academic year. The interest rate is one (1) percent during the in-school period, and six (6) percent during the repayment period. Repayment begins four (4) months after leaving school as a full-time student. The Financial Aid Officer can furnish additional information on these loans.

### **EMPLOYMENT OPPORTUNITIES**

The College Work-Study Program is funded by the Federal Government and assists qualified students by providing job opportunities at the college itself or at a public or private nonprofit agency such as a school, a social agency, or a hospital—working in cooperation with the college. A student may work an average of fifteen (15) hours weekly while classes are in session and forty (40) hours per week during the summer or other vacation periods. In general, the salary is at least equal to the current minimum wage, although it is frequently higher.

### **VETERANS ADMINISTRATION BENEFITS**

The college is approved for the training of Veterans, war orphans, children of totally disabled veterans; or a widow of any person who died of service-connected disability, or wife of any veteran with total disability of a permanent nature resulting from service connected disability. Veterans education is approved under the provisions of Public Law 89-358 (Veterans Readjustment Benefits Act of 1966), Public Laws 894 and 87-815 (Veterans Vocational Rehabilitation Program). War orphans may obtain benefits under Public Law 634 (War Orphans Educational Assistance Act of 1956) and children of totally disabled veterans under Public Law 88-361. Veterans seeking such benefits should contact the college, be accepted for a program of study, and then seek counseling from the local Veterans Affairs Officer.

To receive full benefits under the G. I. Bill, the student must carry a full academic load (12 credit hours for college transfer or AAS Degree programs, 30 contact hours per week for vocational programs.)

Contact hours shown in this catalog are minimal, and it is the policy of this institution to permit students to enroll in additional courses and lab work in order to broaden their training. When in any quarter the total weekly contact hours listed are fewer than the amount required for full-time certification, a student may, on request, enroll for additional instructional hours provided such hours are deemed by the institution to be consistent with and appropriate to the student's overall program.

### VOCATIONAL REHABILITATION ASSISTANCE

Certain handicapped students are eligible for aid administered through the Division of Vocational Rehabilitation, N. C. Department of Public Instruction. Those who seek aid should make application to the local Division of Vocational Rehabilitation.

### SOCIAL SECURITY BENEFITS

Some students may qualify for financial assistance through their parents' Social Security benefits. Those seeking such aid should first contact their local Social Security Office.

#### STUDENT ORGANIZATIONS AND ACTIVITIES

The college encourages student participation in student organizations and activities. Although student activities are viewed as secondary to the central purpose of academic preparation, they are nevertheless an important phase of student growth and development. A faculty sponsor is required for each student group and organization. The groups currently functioning on the campus are:

### STUDENT GOVERNMENT ASSOCIATION

The Student Government Association is designed to promote the general welfare of the college in a democratic fashion and to facilitate communication between the student body, the faculty, and the administration. The student council provides a means through which students can promote interest in student activities both on and off campus.

### **PUBLICATIONS**

A college newspaper, THE COLLEGIATE, is published monthly by a student staff.

A literary magazine, THIS END UP is published periodically by a student staff.

### **INTERCOLLEGIATE ATHLETICS**

Coastal Carolina Community College participates in a limited program of intercollegiate athletics. The college presently competes in intercollegiate basketball and baseball. Other intercollegiate sports may be organized as interest develops.

### **INTRAMURAL ACTIVITIES**

All intramural activities are under the supervision of the Department of Physical Education and are organized under the direction of an "Intramural Council." Present activities include: touch football, bowling, archery, volleyball, and softball.

#### CHEERLEADERS

Membership on the cheerleaders squad is open for all full-time students. Try-outs are held and selections made during the fall quarter.

#### THE SPANISH CLUB

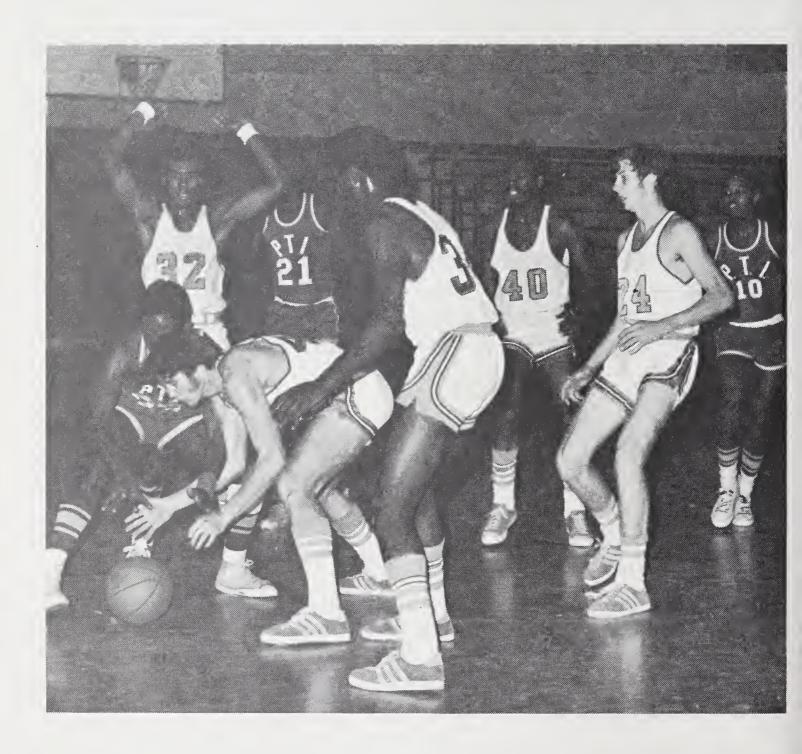
The Spanish Club, founded in 1970, is sanctioned by the SGA. Its purpose is to promote fellowship among students of the Spanish language with special emphasis on enhancing familiarity with it and with the traditional customs of the Spanish communities.

### **HEALTH OCCUPATIONS CLUB**

The Health Occupations Club is an interdisciplinary club formed to provide professional growth for each member and to promote health consciousness in the school and in the community through various projects and activities.

### THE ACT ONE CLUB

The Act One Club is the Drama organization whose purpose it is to develop student interest and talent and serve as a showcase for it. Student members meet together regularly, and participate in actual theater productions.



### **PROGRAMS OF STUDY**

Coastal Carolina Community College offers the following programs of study. The courses listed in each curriculum are required. However, they may not always be taught during the quarter indicated. A student should confer with his educational counselor concerning course schedules. A schedule of courses offered will be published each quarter. The college reserves the right to postpone offering a curriculum which has an insufficient number of applicants.

### ASSOCIATE IN ARTS DEGREE— COLLEGE TRANSFER DIVISION

Liberal Arts Pre-Business Administration Pre-Teaching (Elementary) Pre-Teaching (Secondary)

Pre-Business Education Pre-Law General Education Pre-Science

### ASSOCIATE IN APPLIED SCIENCE DEGREE— OCCUPATIONAL DIVISION

Architectural Technology Business Administration Civil Engineering Technology (Surveying) Dental Hygiene Electronic Data Processing (Business) Executive Secretary Legal Secretary Medical Secretary

### **DIPLOMA PROGRAMS—OCCUPATIONAL DIVISION**

Air Conditioning and Refrigeration Architectural Drafting Auto Body Repair Automotive Mechanics Dental Assistant Electrical Installation and Repair Masonry Practical Nursing Radio and Television Servicing Welding

#### DEVELOPMENTAL STUDIES

Developmental Business

### CERTIFICATE PROGRAMS— CONTINUING EDUCATION DIVISION

Adult Basic Education Community Services Special Education Industrial Services General Adult Education

### **COOPERATIVE EDUCATION PROGRAM**

Coastal Carolina Community College offers credit for employment through a Cooperative Education Program. This program (Co-op) is a program of education which alternates academic study with supervised work experience in industry, business, government, health, and service agencies. It is a joint venture between the college and an employer in preparing individuals for responsible positions in the world of work.

The student in the academic phase of the program takes the same courses as the regular curriculum student. The work experience phase is planned, progressive and related to the curriculum. The program is supervised by the Director of Cooperative Education and other members of the administration and faculty to assure the proper coordination between the student's job and with the educational program. Students will be given credit for their work experience.

Students are able to apply classroom knowledge to actual work situations and thereby gain greater interest and appreciation for their courses. They are able to work with and observe people of varied backgrounds and disciplines. This enables them to mature more rapidly and to make a more intelligent selection of their field of interest and their career objectives. They learn the value of money and are able to defray a portion of their educational expenses. In many instances, the Co-op student, employed on a temporary basis by a company, decides upon completion of his educational program to become a permanent employee of the cooperating employer.

Interested students should indicate their interest by enrolling in the Co-op Program at the time of registration and contact the Director of Cooperative Education or his designated representative immediately.

### CURRICULUM OUTLINES AND GRADUATION REQUIREMENTS

The general requirement that a student have at least a "C" (2.0) overall average applies to all curricula.

### COLLEGE TRANSFER DIVISION ASSOCIATE IN ARTS DEGREE

#### COLLEGE TRANSFER PROGRAM

The College transfer program is designed to parallel the freshman and sophomore years of study of a senior college or university.

The course requirements of colleges and universities differ in the nature and number of required courses. In order for students to experience ease of transfer it is suggested that the student select the particular curriculum which best suits his educational objectives. It is also suggested that the student acquire a catalog from the college or university he plans to attend.

The college counseling staff and faculty advisors are available for student conferences in course selection. However, it is the responsibility of the student to familiarize himself with the requirements of the senior institution to which he plans to transfer.

Any substitution of courses for those listed in the programs of study must have the approval of the Dean of Academic Affairs and the Dean of Student Services.

The Associate in Arts candidate will be expected to complete the following general education courses or equivalent with additional approved electives for a minimum of 96 credit hours. Ninety (90) credit hours must be in academic subjects.

#### LIBERAL ARTS CURRICULUM

The Liberal Arts Curriculum is designed for students who plan to transfer to a liberal arts curriculum at a four-year college or university.

	Quarter Hours Credit
English 101-102-103	9
English Literature 201-202	10
History 101-102-103	9
Mathematics 102-103-or 111-112	10
Biology 101-102-103	12
Art 101 or Music 101	5
Sociology 201	5
Political Science 201	5
Foreign Language	9 to 18
Physical Education	6
Electives to complete 96 hours	

#### PRE-SCIENCE CURRICULUM

The Pre-Science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science (i.e., biology, chemistry, forestry, textiles). Selection of electives in science and mathematics is recommended.

	Quarter	Hours Credit
English 101-102-103		9
History 101-102-103		9
Mathematics 102-103		10
Biology 101-102-103		12
Chemistry 101-102-103		12
Art 101 or Music 101		5
Mathematics 250 or Mathematics 201-202-203		5-15
Foreign Language or Economics 201-202-203		9-18
Physical Education		6
Electives to complete 96 hours		

Students preparing for a program in biology are recommended to take Mathematics 250, while for chemistry, Mathematics 201-202-203 is suggested. Physics will need to be taken at the receiving institution during the junior year. Depending upon the requirements of the senior institution, students will need to choose the option of either a foreign language or economics.

#### PRE-BUSINESS ADMINISTRATION CURRICULUM

The Pre-Business Administration Curriculum is designed for the students who plan to transfer to a senior institution for a major in business administration.

	Quarter Hours Credit
English 101-102-103	9
History 101-102-103	9
Mathematics 102-103 or 111-112	10
Biology 101-102-103	12
Art 101 or Music 101	5
Sociology 201	5
Political Science 201	5
Introduction to Business 101	5
Principles of Economics 201-202-203	9
Principles of Accounting 120-121	12
Physical Education	6
English Literature	5
Electives to complete 96 hours	

#### PRE-TEACHING (ELEMENTARY) CURRICULUM

The Pre-Teaching (Elementary) Curriculum is designed for students who plan to transfer to a four-year college or university and prepare for a professional career in teaching. Electives should be taken in the subject area one plans to teach.

	Q	uarter Hours Cree	dit
English 101-102-103		9	
History 101-102-103		9	
Mathematics 102-103 or 1	111-112	10	
Biology 101-102-103		12	
Health 101		5	
Speech 201		3	
Sociology 201		5	
Education 201		5	
Art 101		5	
Psychology 201		5	
Political Science 201		5	
Music Appreciation 101		5	
Foreign Language		9	
Physical Education		6	
Electives to complete 96	hours		
Foreign Language Physical Education	hours	9	

#### PRE-TEACHING (SECONDARY) CURRICULUM

The Pre-Teaching (Secondary) Curriculum is designed for students who plan to transfer to a four-year college or university and prepare for a professional career in teaching. Electives should be taken in the subject area one plans to teach.

	Quarter Hours Credit
English 101-102-103	9
History 101-102-103	9
Mathematics 102-103 or 111-112	10
Biology 101-102-103	12
Speech 201	3
Sociology 201	5
Education 201	5
Psychology 201-202	10
Political Science 201	5
Foreign Language	9
Physical Education	6
Electives to complete 96 hours	

#### PRE-BUSINESS EDUCATION CURRICULUM

This program is designed for students who plan to teach business education in public schools.

	Quarter Hours Credit
English 101-102-103	9
History 101-102-103	9
Mathematics 111-112	10
Business 102-103-104 (Typing)	9
Music 101	5
Biology 101-102-103	12
Business 106-107-108 (Shorthand)	12
Economics 201-202-203	9
Accounting 120-121	12
Physical Education	6
Electives to complete 96 hours	

#### **PRE-LAW CURRICULUM**

The Pre-Law Curriculum is designed for students who plan to study law at a four-year college or university. Selection of electives in accounting is recommended.

	Quarter Hours Credit
English 101-102-103	9
English Literature 201	5
History 101-102-103	9
Mathematics 102-103	10
Biology 101-102-103	12
Sociology 201	5
Political Science 201	5
Foreign Language	9 to 18
Speech 201	3
Economics 201-202-203	9
Physical Education	6
Electives to complete 96 hours	

#### GENERAL CURRICULUM

The general curriculum is designed for students who have not decided upon a specific educational objective. This program provides the student with the opportunity to explore various fields of interest.

	Quarter Hours Credit
English 101-102-103	9
English Literature 201-202	10
History 101-102-103	9
Biology 101-102-103	12
Mathematics 102-103 or 111-112	10
Music 101	5
Art 101	5
Sociology 201	5
Health 101-102	8
Psychology 201	5
Political Science 201	5
Physical Education	6
Electives to complete 96 hours	

#### NOTE:

Physical Education requirements may be waived for married women, students with military training, and those who are medically disabled.

### PHYSICAL EDUCATION COLLEGE REQUIREMENT

All full-time, college parallel students twenty-six (26) and under, are required to take two (2) years or six (6) quarter-hour credits of physical education one of which must be PED 101, Physical Conditioning. The only students exempted from this requirement are:

- 1. Those who are physically unable to meet this requirement and present a written medical exemption from their physician to the college registrar.
- 2. Those students twenty-seven (27) years of age and over, in which case physical education courses are optional.
- 3. Active, or discharged service personnel, and married women are required only one (1) year, or three (3) quarter hours credit. (PED 101 required.)

## OCCUPATIONAL DIVISION ASSOCIATE IN APPLIED SCIENCE PROGRAMS



### ARCHITECTURAL TECHNOLOGY

This program is designed to provide men and women with knowledge and skills that will support a broad area of employment potential with the main emphasis toward the architectural office. Technical courses are included which will enable the graduate to advance in technical knowledge and proficiency as job experience is obtained. Related subjects are included to enhance and support this program.

The educational requirements for this program are based on a study completed by the Educational Task Force for Architectural Technician Training of the American Institute of Architects. An Architectural Technician Advisory Committee, composed of local architects from this area, aid in keeping this program current and up to date.

Architectural technicians may be concerned with turning the architect's design sketches into complete and accurate working drawings. These technicians may also obtain jobs in other related fields such as engineering, contracting, building materials manufacturing, distribution and sales. Other areas of job opportunities may be found in architectural rendering, model building, and landscape architecture. The opportunity for diverse employment in this field is phenomenal.

The technician may be involved in work requiring a knowledge of building codes, specifications and contract documents. He or she must be able to communicate graphically with other people and will spend much time studying the graphics of architecture.

The diversity and size of architectural projects and services require a corresponding variety to supporting personnel. The impact of data processing, computer aids and an accelerated technology in architecture is continuing to create new demands and job opportunities.

After graduation in this curriculum, two years of architectural office experience and the completion of courses in continuing education are the prerequisites for letters of recommendation from the technician's employer which may lend to certification as an Architectural Technician by the American Institute of Architects.

# ARCHITECTURAL TECHNOLOGY

FIRST	QUARTER	Hours Pe Class	r Week Lab	Čredit
T-ENG T-MAT T-PHY T-ARC T-ARC	101—Grammar 101—Technical Mathematics 101—Physics: Properties of Matter 101—Architectural Graphics I 121—Architectural Materials	3 5 3	0 0 2 6	Hours 3 5 4 4
	and Methods I	3	3	4
		16	11	20
SECON	D QUARTER			
T-ENG T-MAT T-PHY T-ARC T-ARC	102—Composition 102—Technical Mathematics 104—Physics: Light and Sound 102—Architectural Graphics II 116—Environmental Science I	5 3	$     \begin{array}{c}       0 \\       0 \\       2 \\       6 \\       3 \\      \end{array} $	3 $5$ $4$ $4$ $4$
		16	11	20
THIRD	QUARTER			
T-ENG T-MAT T-ARC	204—Oral Communications 103—Technical Mathematics 122—Architectural Materials	5	0 0	3 5
T-ARC T-CIV	and Methods II 103—Architectural Graphics III 114—Statics	3 0 5	3 9 0	4 3 5
		$\overline{16}$	12	$\overline{20}$
FOURT	H QUARTER			
T-ENG	206—Business Communication 216—Strength of Materials 201—Architectural Graphics IV 211—Architectural Surveying	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 0\\ 2\\ 9\\ 6\\ \hline 17 \end{array}$	3 $4$ $5$ $4$ $-$ $16$
FIFTH	QUARTER	10	17	10
T-ARC T-ARC	Social Science Elective 202—Architectural Graphics V 233—Office Practice Seminar 235—Codes, Specifications, and	3 2 2	0 9 0	3 5 2
1-ARO	Contract Documents Elective (Min.)		3	4 3
		10	12	17
SIXTH	QUARTER			
T-ARC T-ARC	Social Science Elective 203—Architectural Graphics VI 230—Construction Estimating and		0 9	3 5
1-1110	Field Inspecting Elective (Min.)	3	3	4 3
		8	12	15

# **BUSINESS ADMINISTRATION**

#### **INTRODUCTION**

The Business Administration Curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

- 1. Understanding of the principles of organization and management in business operations.
- 2. Understanding our economy through study and analysis of the role of production and marketing.
- 3. Knowledge in specific elements of accounting, finance, and business law.
- 4. Understanding and skill in effective communication for business.
- 5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

The graduate of the Business Administration Curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These encompassments might include: making up and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervision. Positions are available in businesses such as advertising; banking; credit; finance; retailing; wholesaling; hotel, tourist, and travel industry; insurance; transportation; and communications.

# **BUSINESS ADMINISTRATION**

FIRST	QUARTER	Hours Per	Week	Quarter Hours
		Class	Lab	Credit
T-ENG	101—Grammar		0	3
BUS	101—Introduction to Business		0	5
ECO	201—Introduction to Economics		0	3
T-BUS	110—Office Machines		2	3
MAT	110—Business Mathematics	ð	0	5
SECON	D QUARTER	18	2	19
		0	0	0
T-ENG	102—Composition		0	3
ECO	202—Introduction to Economics		0	3
T-BUS	115—Business Law		$\begin{array}{c} 0 \\ 2 \end{array}$	5
BUS	120—Principles of Accounting	O	Z	6
THIRD	QUARTER	16	2	17
BUS	102—Beginning Typewriting*		3	3
T-BUS	116—Business Law		0	5
BUS	121—Principles of Accounting		2	6
T-ENG	204—Oral Communication	3	0	3
		15	5	17
FOURT	H QUARTER			
T-EDP	204—Introduction to Data	0	9	4
TI TINO	Processing—Business		2 0	4
T-ENG T-BUS	206—Business Communication		Č,	3
BUS	232—Sales Development		0 0	о 5
DUS	239—Marketing		0	6
		14	2	15
FIFTH	QUARTER			
T-BUS	123—Business Finance		0	5
T-POL	201—U. S. Government		0	3
BUS	235-Business Management		0	5
T-BUS	243—Advertising	3	2	4
		16	2	17
SIXTH	QUARTER	10	2	<b>T</b> 1
T-PSY	206—Applied Psychology		0	3
T-BUS	219—Credit Procedures	3	0	3
T-BUS	229—Taxes		2	4
T-BUS	245—Retailing		0	3
T-BUS	272—Principles of Supervision	3	0	3
		15	2	16

\*Students may receive credit by successfully passing an examination.

#### CIVIL ENGINEERING TECHNOLOGY (Option in Surveying)

#### **INTRODUCTION**

#### PURPOSE OF CURRICULUM

Construction technicians perform many of the planning and supervisory tasks necessary in the construction of highways, bridges, power plants, dams, missile sites, airfields, water and sewage treatment plants, industrial buildings and utilities. In the planning stages of construction they may be engaged in estimating costs, ordering materials, interpreting specifications, computing earthwork cuts and fills and storm drainage requirements, surveying or drafting. Once the actual construction work has begun, many technicians perform supervisory functions. Some may be responsible for seeing that construction activities are performed in proper sequence, and for inspecting the work as it progresses for conformance with blueprints and specifications.

The expanding construction industry needs up-to-date technically trained personnel. The objective of the Civil Technology Program is to train technicians who will work with skilled craftsmen and engineers in performing the various functions included in the broad field of construction. This curriculum provides the necessary basic background and related theory with specific skills needed in the construction field. Basic construction knowledges and skills are supplemented by courses in Communication Skills, Economics, Industrial Organization and Management, and Human Relations.



# CIVIL ENGINEERING TECHNOLOGY (Option in Surveying)

FIRST	QUARTER	Hours Per		Quarter Hours
T-ENG T-MAT T-PHY T-DFT T-CIV	101—Grammar 101—Technical Mathematics 101—Physics: Properties of Matter 101—Technical Drafting 101—Surveying	5 3 0	Lab 0 2 6 6	Credit 3 5 4 2 4
SECON	D QUARTER	13	14	18
T-ENG T-MAT T-PHY T-DFT T-CIV	102—Composition 102—Technical Mathematics 102—Physics: Work, Power, Energy 102—Technical Drafting 102—Surveying	5 3 0 2	$     \begin{array}{c}       0 \\       0 \\       2 \\       6 \\       6 \\       \hline       1 \\       4     \end{array} $	
THIRD	QUARTER	13	14	18
T-ENG T-MAT T-CIV T-CIV T-CIV T-CIV	204—Oral Communication 103—Technical Mathematics 114—Statics 103—Surveying 109—Boundary Law	5 5 2	0 0 6 0	$3 \\ 5 \\ 4 \\ 3 \\ -$
FOURT	H QUARTER	18	6	20
T-ENG T-CIV T-CIV T-CIV T-CIV T-CIV	206—Business Communication 211—Topographic Surveying 217—Construction Methods & Equipment 216—Strength of Materials 223—Codes, Contracts, & Specifications	- 2 - 3 3	$\begin{array}{c}0\\6\\2\\2\\0\\\hline10\end{array}$	$3$ $4$ $4$ $2$ $\overline{17}$
FIFTH	QUARTER	20		
T-CIV T-CIV T-CIV T-CIV	<ul> <li>212—Route Surveying</li> <li>202—Properties of Soils</li> <li>201—Properties of Engineering Materials</li> <li>228—Drainage Structures</li> <li>Social Science Elective</li> </ul>	2	6 3 3 0	4 3 3 3
SIVTII		11	15	16
T-CIV	QUARTER 229—Subdivision Drainage	_ 3	0	3
T-CIV T-CIV T-CIV	<ul> <li>213—Advanced Land Surveying</li> <li>214—Mapping &amp; Subdivision Planning</li> <li>227—Construction of Road and Pavements</li> <li>Social Science Elective</li> </ul>	- 2 - 2 5 3	6 6 2 0	$\begin{array}{c} 4\\ 4\\ 4\\ 3\end{array}$
		13	14	18

#### DENTAL HYGIENE

The Dental Hygiene Program provides a variety of experiences in classroom, laboratory, and clinical procedures in preparation for the responsibilities of the profession of Dental Hygiene. The dental hygienist is an integral part of the oral health team and her duties include providing preventive care and oral hygiene education to groups and individuals. In addition to being employed in private practice, the dental hygienist may elect to practice in hospitals, institutions, industry, the military services, the Peace Corps, and with further educational qualifications she can enter the field of teaching or service in public health at a local, state, or national level.

The dental hygienist is recognized by law in all of the states and in the District of Columbia and as the national health program expands there will be an increasing need for trained professionals in the field of dental hygiene.

Upon completion of the program, graduates will receive an Associate in Applied Science Degree and will be eligible to make application for the licensing examination given by the North Carolina State Board of Dentistry for practice in North Carolina.

Dental Hygiene applicants must take the Dental Hygiene Aptitude Test sponsored by the American Dental Hygienists' Association and high school credits in chemistry, algebra, and biological sciences are required. Applicants will be interviewed by members of the Dental Hygiene Faculty prior to formal acceptance.



#### DENTAL HYGIENE

FIRST	QUARTER	Hours Per	Week	Quarter Hours
DEN DEN BIO CHE ENG	101—Dental Anatomy I 111—Introduction to Dental Hygiene 121—Human Anatomy and Physiology I 101—General Chemistry 101—English Composition	3 4 3	Lab 6* 0 2 3 0	<b>Credit</b> 4 3 5 4 3
SECON	ID QUARTER	15	11	19
DEN DEN BIO CHE DEN ENG	102—Dental Anatomy II 112—Preclinical Dental Hygiene 122—Human Anatomy and Physiology II 102—General Chemistry 142—Oral Histology and Embryology 102—English Composition	1 4 3 2 3	$0 \\ 9* \\ 2 \\ 3 \\ 2 \\ 0$	$2 \\ 4 \\ 5 \\ 4 \\ 3 \\ 3 \\ -$
THIRD	QUARTER	15	16	21
BIO DEN DEN DEN	123—Introduction to Microbiology 113—Introduction to Clinical Dental Hygien 133—Dental Radiology 123—Periodontia and Preventive	e 2 2	$\begin{array}{c}3\\12^{*}\\2\end{array}$	$\begin{array}{c} 4\\ 6\\ 3\end{array}$
CHE	Dentistry I 104—Nutritional Chemistry	2 3	0 0	$\frac{2}{3}$
FOUR	TH QUARTER	12	17	18
DEN DEN DEN	214—Clinical Dental Hygiene I 254—General and Oral Pathology 224—Periodontia and Preventive	2 2	$12^{*}_{0}$	$6 \\ 2$
DEN ENG	Dentistry II 234—Dental Materials 103—English Composition	2 2 3	2 3* 0	3 3 3
FIFTH	QUARTER	11	17	17
DEN DEN DEN DEN PSY SPH	<ul> <li>215—Clinical Dental Hygiene II</li> <li>255—Introduction to Pharmacology</li> <li>225—Community Dentistry I</li> <li>235—Dental Health Education</li> <li>201—Introduction to Psychology</li> <li>201—Fundamentals of Speech</li> </ul>	2 2 1 5 3	$12* \\ 0 \\ 3 \\ 2 \\ 0 \\ 0 \\ 0 \\$	523253
SIXTH	QUARTER	14	17	20
DEN DEN DEN SOC PSY	<ul> <li>216—Clinical Dental Hygiene III</li> <li>206—Dental Hygiene Seminar</li> <li>226—Community Dentistry II</li> <li>201—Introduction to Sociology</li> <li>202—Growth and Development</li> </ul>	0 2 5	$12* \\ 3* \\ 3 \\ 0 \\ 0 \\$	
		14	18	20

\*MANIPULATIVE LABORATORY: Involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

# ELECTRONIC DATA PROCESSING

This curriculum is designed to give the student (1) an understanding of the principles of business operation and/or scientific techniques in problem solving, (2) experience in handling computers and in using programming techniques to solve assigned problems, (3) facility in using specialized problem-solving techniques where necessary, (4) ability to properly document his work and to communicate efficiently with concerned personnel.

The data processing specialist applies programming techniques which are compatible with his computer to defined problems with minimum supervision. He analyzes and defines system requirements to develop a program for electronic data processing; conducts detailed analyses of systems requirements; develops all levels of block diagrams and logical flow charts; translates program details into coded instructions; establishes test data; tests, refines, and revises programs and documents procedures. He ascertains if other combinations of instructions would achieve greater flexibility, better machine utilization, or more dependable results. He may prepare a complete set of operating instructions for use by a console operator; on occasion, operates the console in processing program.



### **ELECTRONIC DATA PROCESSING**

FIRST	QUARTER	Hours Per	Week	Quarter Hours
ECO		Class 3	Lab 0	Credit 3
EDP	104—Introduction to Data Processing Systems		2	6
T-MAT T-ENG	106—Electronic Data Processing Mathematics I 101—Grammar		$2 \\ 0$	6 3
		$\overline{16}$	4	18
SECON	D QUARTER			
BUS	102—Composition 120—Principles of Accounting 107—Electronic Data Processing		$\begin{array}{c} 0 \\ 2 \end{array}$	3 6
EDP	Mathematics II 202—Cobol I		0 4	5 4
		15	6	18
THIRD	QUARTER			
T-ENG EDP EDP BUS	206—Business Communication 210—Cobol II 105—Assembly Language I 121—Principles of Accounting		$egin{array}{c} 0 \\ 4 \\ 4 \\ 2 \end{array}$	3 4 5 6
		13	10	18
FOURT	H QUARTER			
EDP EDP BUS MAT	201—Assembly Language II 211—Cobol III 226—Cost Accounting 250—Introductory Statistics	5 4	$\frac{4}{2}$	$5 \\ 4 \\ 6 \\ 5 \\ -$
		14	12	20
	QUARTER	9		4
EDP	107—Fortran 215—Operating Systems 235—Business Management 115—Business Law 206—Applied Psychology	3		$     \begin{array}{r}       4 \\       4 \\       5 \\       5 \\       3 \\       \\       21     \end{array} $
SIXTH	QUARTER	A. C	0	
EDP	220—Introduction to Systems Analysis	3	2	4
EDP EDP T-BUS	223—Field Project 224—Report Program Generator 229—Taxes	2	8 2 2	5 4 4
		11	14	17

### **EXECUTIVE SECRETARY**

#### **INTRODUCTION**

The demand for better qualified secretaries in our ever-expanding business world is becoming more acute. The purpose of this curriculum is to outline a training program that will provide training in the accepted procedures required by the business world and to enable persons to become proficient soon after accepting employment in the business office.

The Executive Secretary Curriculum is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the business world. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

The graduate of the Executive Secretary Curriculum should have a knowledge of business terminology, skill in dictation and accurate transcription of business letters and reports. The graduate may be employed as a stenographer or a secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, and being an assistance to an executive. She may enter a secretarial position in a variety of offices in businesses such as insurance companies, banks, marketing institutions, and financial firms.

Students in this curriculum may, if they qualify, elect to take Machine Shorthand in lieu of Gregg Shorthand.



#### **EXECUTIVE SECRETARY**

FIDST	OU A DEED	Hours Per	Week	Quarter
r i ko i	QUARTER	Class	Lab	Hours Credit
T-ENG BUS	101—Grammar 101—Introduction to Business	3 5	0 0	3 5
BUS	102—Beginning Typewriting* 106—Beginning Shorthand*	2	3	3
BUS	106—Beginning Shorthand*	3	2	4
		13	5	15
SECON	D QUARTER			
T-ENG	102—Composition	3	0	3
BUS BUS	103—Intermediate Typewriting	2 3	$\frac{3}{2}$	$3 \\ 4$
<b>T-</b> BUS	103—Intermediate Typewriting 107—Intermediate Shorthand 110—Office Machines 110—Business Mathematics	2	2 2	3
MAT	110—Business Mathematics	5	0	5
		15	7	18
THIRD	QUARTER			
BUS	104—Advanced Typewriting 108—Advanced Shorthand	2	3	3
BUS T-BUS	108—Advanced Shorthand 134—Personal Development	2 3 3 3	$\frac{2}{2}$	4 4
T-ENG	204—Oral Communication		0	3
T-BUS	211—Office Machines	2	2	3
		13	9	17
FOURT	TH QUARTER			
T-EDP	204—Introduction to Data	0	0	A
T-BUS	Processing—Business 205—Technical Typewriting		$\frac{2}{3}$	43
T-ENG	206—Business Communication	3	$\begin{array}{c} 0 \\ 2 \end{array}$	$3\\3\\4$
T-BUS	206—Dictation & Transcription	ð		
		11	7	14
FIFTH	QUARTER			
T-BUS	115—Business Law	5	0	5
T-BUS T-POL	118—Record Keeping 201—U. S. Government 207—Dictation & Transcription	5 3	$\frac{2}{0}$	$\begin{array}{c} 6 \\ 3 \\ 4 \end{array}$
T-BUS	207—Dictation & Transcription	3	2	4
		$\overline{16}$	4	18
SIXTH	QUARTER			
T-BUS	112—Filing		0	3
T-PSY	206—Applied Psychology	3	0	3
T-BUS T-BUS	208—Dictation & Transcription 214—Secretarial Procedures	ð 3	$2 \\ 2 \\ 0$	4 4 3
T-BUS	212—Transcription Machines		0	3
		15	4	17

\*Students may receive credit by successfully passing an examination.

# LEGAL SECRETARY

#### **INTRODUCTION**

The demand for better qualified legal secretaries in our everexpanding legal profession is becoming more acute. The purpose of the Legal Secretary Curriculum is to outline a training program that will provide specialized training in the accepted procedures required by the legal profession, and to enable persons to become proficient soon after accepting employment in the legal office.

The curriculum is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the legal profession. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

The graduate of the Legal Secretary Curriculum should have a knowledge of legal terminology, skill in dictation and accurate transcription of legal records, reports, letters, and documents. The duties of a legal secretary may consist of: taking dictation and transcribing letters, memoranda and reports, meeting office callers and screening telephone calls, filing, and scheduling appointments. Opportunities for employment of the graduate exist in a variety of secretarial positions in the legal profession such as in lawyers' offices and state and government offices.



# LEGAL SECRETARY

		Hours Per	Week	Quarter
FIRST	QUARTER	Class	Lab	Hours Credit
T-ENG BUS	101—Grammar 101—Introduction to Business	3 5	0 0	3 5
BUS BUS	102—Beginning Typewriting* 106—Beginning Shorthand*	2	3 2	3
DUS	100-Beginning Shortmand			4
GEGON		13	5	15
	D QUARTER			
T-ENG BUS	102—Composition 103—Intermediate Typewriting	3 2	$\begin{array}{c} 0\\ 3\end{array}$	3 3
BUS T-BUS	107—Intermediate Shorthand 110—Office Machines	3	3 2 2	$\frac{3}{4}$
MAT	110—Office Machines 110—Business Mathematics	5	$\frac{2}{0}$	3 5
		15	7	18
THIRD	QUARTER			
BUS	104—Advanced Typewriting	2	3	3
BUS T-BUS	108—Advanced Shorthand 134—Personal Development	3	$\frac{2}{2}$	$4 \\ 4$
T-BUS T-ENG	183L — Legal Terminology & Vocabulary. 204—Oral Communication	3	$\overline{\begin{array}{c}0\\0\end{array}}$	ີ 3 3 3
T-BUS	204—Office Machines		$\frac{0}{2}$	3 3
		16	9	$\overline{20}$
FOURT	TH QUARTER			
T-EDP	204-Introduction to Data			
T-BUS	Processing—Business	3	$2 \\ 3 \\ 0$	4
<b>T-ENG</b>	205—Technical Typewriting 206—Business Communication 206—Dictation & Transcription	3		$egin{array}{c} 4 \\ 3 \\ 4 \end{array}$
T-BUS	206—Dictation & Transcription		2	
		11	7	14
FIFTH	QUARTER			
T-BUS	115—Business Law	5 5	$\begin{array}{c} 0 \\ 2 \end{array}$	5
T-POL	118—Record Keeping 201—U. S. Government 207—Dictation & Transcription	3	$\begin{array}{c} 2\\ 0\\ 2 \end{array}$	$\begin{array}{c} 6 \\ 3 \\ 4 \end{array}$
T-BUS	207—Dictation & Transcription			
		16	4	18
SIXTH	QUARTER			
T-BUS T-PSY	112—Filing 206—Applied Psychology 208—Dictation & Transcription 214—Secretarial Procedures	3	0 0	3
<b>T</b> -BUS	208—Dictation & Transcription			3 3 4 4 3
T-BUS T-BUS	214—Secretarial Procedures 212—Transcription Machines	ð 3	2 2 0	43
		$\frac{1}{15}$	4	$\overline{17}$

\*Students may receive credit by successfully passing an examination.

# MEDICAL SECRETARY

#### **INTRODUCTION**

The demand for better qualified medical secretaries in our everexpanding medical profession is becoming more acute. The purpose of this curriculum is to outline a training program that will provide specialized training in the accepted procedures required by the medical profession, and to enable persons to become proficient soon after accepting employment in the medical and health occupations.

The Medical Secretary Curriculum is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the medical profession. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

The graduate of the Medical Secretary Curriculum should have a knowledge of medical terminology, skill in dictation and accurate transcription of medical records, reports and letters. The duties of a medical secretary may consist of: taking dictation and transcribing letters, memoranda and reports, meeting office callers and screening telephone calls, filing, and scheduling appointments. The graduate may enter a secretarial position in a variety of offices such as physicians', private and public hospitals, federal and state health programs, and the drug and pharmaceutical industry.



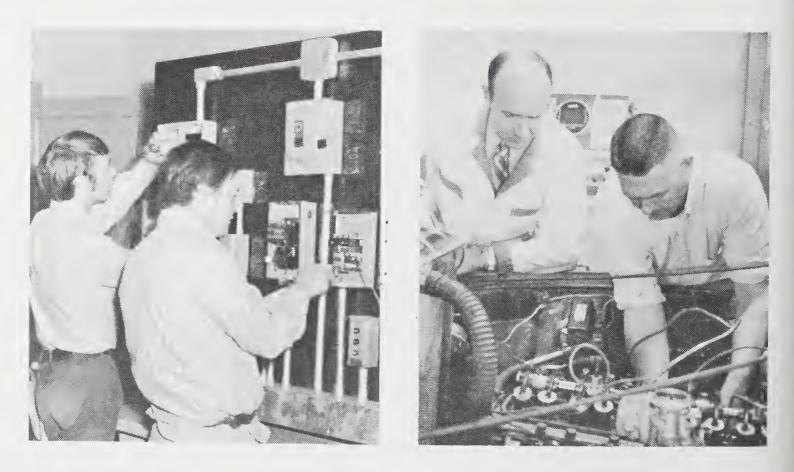
#### **MEDICAL SECRETARY**

FIRST	QUARTER	Hours Per		Hours
T-ENG BUS BUS BUS	101—Grammar 101—Introduction to Business 102—Beginning Typewriting* 106—Beginning Shorthand*	5	Lab 0 0 3 2	Credit 3 5 3 4
		13	5	15
	D QUARTER			
BUS	102—Composition 103—Intermediate Typewriting 107—Intermediate Shorthand 110—Office Machines 110—Business Mathematics	2 3 2	$     \begin{array}{c}       0 \\       3 \\       2 \\       2 \\       0 \\      \end{array} $	3 3 4 3 5
		15	7	18
THIRD	QUARTER			
BUS BUS T-BUS T-BUS T-ENG T-BUS	104—Advanced Typewriting 108—Advanced Shorthand 134—Personal Development 183M—Medical Terminology & Vocabulary 204—Oral Communication 211—Office Machines	- 3 - 3 7 3 - 3	$     \begin{array}{c}       3 \\       2 \\       2 \\       0 \\       0 \\       2 \\       - \\       9     \end{array} $	3 $4$ $3$ $3$ $3$ $20$
FOURI	TH QUARTER			
T-EDP T-BUS T-ENG T-BUS T-BUS	<ul> <li>204—Introduction to Data Processing—Business</li> <li>205—Technical Typewriting</li> <li>206—Business Communication</li> <li>206—Dictation &amp; Transcription</li> <li>284M—Medical Terminology &amp; Vocabulary</li> </ul>	2 3 3	$2 \\ 3 \\ 0 \\ 2 \\ 0 \\$	$\begin{array}{c}4\\3\\3\\4\\3\end{array}$
		14	7	17
FIFTH	QUARTER			
T-BUS T-POL	<ul> <li>115—Business Law</li> <li>118—Record Keeping</li> <li>201—U. S. Government</li> <li>207—Dictation &amp; Transcription</li> </ul>	5	$\begin{array}{c} 0\\ 2\\ 0\\ 2\\ -\end{array}$	$5 \\ 6 \\ 3 \\ 4$
		16	4	18
SIXTH	QUARTER			
T-BUS T-PSY T-BUS T-BUS T-BUS	<ul> <li>112—Filing</li> <li>206—Applied Psychology</li> <li>208—Dictation &amp; Transcription</li> <li>214—Secretarial Procedures</li> <li>212—Transcription Machines</li> </ul>	- 3	$\begin{array}{c} 0\\ 0\\ 2\\ 2\\ 0\\\\ 4 \end{array}$	3 $4$ $4$ $3$ $-$ $17$

\*Students may receive credit by successfully passing an examination.

# DIPLOMA PROGRAMS OCCUPATIONAL DIVISION





# AIR CONDITIONING AND REFRIGERATION

#### **INTRODUCTION**

The present day demands from industry for qualified mechanical experts in all areas of air conditioning and refrigeration are greater than ever before. The curriculum given at Coastal Carolina Community College is designed to equip young men to help meet the needs of industry.

The program includes a comprehensive study of the theory and fundamentals of refrigeration, heating and air conditioning. The student is given an understanding of the functions of the mechanical equipment that is used. Emphasis is placed on manipulative skills, installation and service procedures as well as exercise and training in practical thinking.

Mathematics, English and Social Studies are included in this curriculum to better equip the student to take his proper place in society and industry.

The Air Conditioning and Refrigeration curriculum prepares graduates as installation and service mechanics. He will have had training in pipe work, metal work and insulation and with experience should be able to progress to foreman or a supervisory position. Plant maintenance in industry and government provide attractive possibilities.



### AIR CONDITIONING & REFRIGERATION

FIRST QUARTER	Hours Per	Week	Quarter Hours
MAT 1101—Fundamentals of Mathematics ENG 1101—Reading Improvement DFT 1180—Trade Drafting AHR 1121—Fundamentals of Refrigeration I PHY 1105—Shop Science I	3 2 5	Lab 0 3 6 2	Credit 5 3 3 7 4
	18	11	22
SECOND QUARTER			
MAT 1102—Mathematics PHY 1106—Shop Science II AHR 1122—Fundamentals of Refrigeration II ENG 1102—Business Writing ELC 1101—Basic Electricity	3 4 3	$     \begin{array}{c}       0 \\       2 \\       6 \\       0 \\       0 \\       - \\       8     \end{array} $	$ \begin{array}{r} 5\\ 4\\ 6\\ 3\\ -\\ 21 \end{array} $
THIRD QUARTER			
AHR 1123—Commercial Refrigeration AHR 1126—Sheet Metal Layout & Fabrication I BUS 1103—Small Business Operations AHR 1128—Control Systems	2 3	$     \begin{array}{r}       12 \\       4 \\       0 \\       3 \\       \overline{19}     \end{array} $	
FOURTH QUARTER			
AHR 1124—Winter Air Conditioning I AHR 1125—Principles of Air Conditioning AHR 1134—Sheet Metal Layout & Fabrication II WLD 1180—Basic Welding	5 0	$\begin{array}{c} 6\\ 0\\ 6\\ 4\\ \hline 16\end{array}$	$ \begin{array}{r} 6\\5\\2\\3\\\hline\\16\end{array} $
FIFTH QUARTER			
AHR 1127—Winter Air Conditioning II AHR 1129—Air Conditioning Shop Practice I ELC 1114—Electric Motors & Controls PSY 1101—Human Relations	3 0	$ \begin{array}{c} 6\\ 6\\ 0\\ \hline 18 \end{array} $	$ \begin{array}{c} 6\\ 5\\ 3\\ 3\\ \hline 17 \end{array} $
SIXTH QUARTER			
ENG 1103—Communication Skills AHR 1133—Air Conditioning Shop Practice II AHR 1131—Absorption Systems AHR 1135—Electric & Hydronic Systems	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c}0\\6\\3\\6\\\overline{15}\end{array}$	3 $5$ $4$ $5$ $-$ $17$

# **ARCHITECTURAL DRAFTING**

#### **INTRODUCTION**

The Architectural Drafting Program offered at Coastal Carolina Community College is a well rounded course of study in both practical and academically related subjects. This curriculum is designed to prepare students for entry into the field of architectural drafting.

Each course, arranged in sequence, is prepared to enable an individual to advance rapidly in drafting proficiency. The draftsman must be able to prepare clear, complete, and accurate working drawings for a variety of structures, from rough or detailed sketches. The draftsman is involved with establishing exact dimensions, determination of materials, relationships of one part to another and the relation of the various components to the whole structure.

In order to carry out these duties, the architectural draftsman must possess skill in the use of drafting tools and instruments, making statistical charts, making finished designs and drawings from sketches. In addition, he must have an over-all knowledge of various principles, practices, and methods of construction, composition of materials and the complexities of the building industry in general.

It is not expected that graduates be designers or artists but be competent "draftsmen" filling an important position in the construction industry. Their education would just begin with this curriculum.



#### ARCHITECTURAL DRAFTING

		Hours F	Per Week	Quarter Hours
Course	e Title	Class	Lab	Credit
FIRST	Г QUARTER			
MAT ENG	<ul> <li>1140—Architectural Drafting I</li> <li>1103—Geometry</li> <li>1101—Reading Improvement</li> <li>1144—Building Materials &amp; Methods</li> </ul>	3 3	$ \begin{array}{r} 15\\0\\0\\2\\\hline17\end{array} $	8 $3$ $4$ $-$ $18$
SECO	ND QUARTER			
MAT ENG PHY	<ul> <li>1141—Architectural Drafting II</li> <li>1102—Mathematics</li> <li>1102—Business Writing</li> <li>1101—Applied Science</li> <li>1143—Building Mechanical Equipment</li> </ul>	5 3 3	$ \begin{array}{c} 12\\0\\0\\2\\0\\\hline14\end{array} $	7 5 3 4 3 -22
THIR	D QUARTER			
MAT PHY,	1142—Architectural Drafting III 1104—Trigonometry 1102—Applied Science 1145—Codes, Contracts & Specifications	3 3	$ \begin{array}{c} 12\\ 0\\ 2\\ -\\ 16 \end{array} $	$7$ $3$ $4$ $4$ $\overline{18}$
FOUR	TH QUARTER			
CIV ENG DFT	<ul> <li>1147—Architectural Drafting IV</li> <li>1101—Construction Surveying</li> <li>1103—Communication Skills</li> <li>1148—Office Practice Seminar</li> <li>1146—Construction Estimating and</li> <li>Field Inspection</li> </ul>	2 3 3	$ \begin{array}{c} 12\\ 3\\ 0\\ 0\\ \\ \frac{2}{17} \end{array} $	7 $3$ $3$ $3$ $4$ $20$

### AUTO BODY REPAIR

The field of automotive body repair and painting needs many well-trained people to meet the growing demand for the many special skills in this area of employment. In this program, much of the students' time in the shop is devoted to learning skills and practicing these skills on car bodies and their component parts. Every attempt is made to make these practical experiences as close as possible to actual on-the-job situations. The practical experience and related training provide an ideal way to prepare the students for entry into an occupation that offers many job opportunities.

Graduates of the Auto Body and Fender Repair Curriculum are qualified for jobs in which they remove dents in automobile bodies and fenders; take off fenders and replace them with new ones; straighten frames, doors, hoods, and deck lids; and align wheels. In their work these craftsmen operate welding equipment. Auto body repairmen shrink stretched metal and prepare it for painting. They are called on to paint fenders and/or panels as well as to paint a complete vehicle. In addition to these duties, auto body repairmen remove, fit and install glass. They are required to remove and install interior trim; install headlinings and seat covers; and replace fabric tops of vehicles. This type of employment includes reading and interpreting blueprints, charts instruction and service manuals, and wiring diagrams. These repairmen also prepare orders for repairs and parts as well as estimates and statements for adjusters. After gaining experience, many of these craftsmen open their own businesses or become body shop foremen, supervisors, or managers.



#### AUTO BODY REPAIR

FIRS	T QUARTER	Hours Per Class	Week Lab	Quarter Hours Credit
AUT WLD MAT	1111—Auto Body Repair I 1101—Basic Gas Welding 1101—Fundamentals of Mathematics 1101—Reading Improvement	1 5	$     \begin{array}{r}       15 \\       3 \\       0 \\       0 \\       \overline{} \\       \overline{} \\       \overline{} \\       18 \end{array} $	$8$ $2$ $5$ $3$ $\overline{18}$
SECO	ND QUARTER			
WLD	1112—Auto Body Repair II 1105—Auto Body Welding 1101—Human Relations	1	$     18     3     0     \overline{21} $	$ \begin{array}{c} 11\\ 2\\ 3\\ \hline 16\\ \end{array} $
THIR	D QUARTER			
AUT	1103—Small Business Operations 1113—Metal Finishing & Painting 1115—Trim, Glass & Upholstery 1101—Automotive Air Conditioning	3 1	0 12 6 3 21	$3 \\ 7 \\ 3 \\ 3 \\ \overline{16}$
FOUR	RTH QUARTER			
AUT PME	1114—Body Shop Applications 1122—Chassis & Suspension Systems (Auto Body)		$\frac{15}{9}$ $\overline{24}$	$8\\6\\\overline{14}$

### **AUTOMOTIVE MECHANICS**

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair or adjust components of automotive vehicles. Manual skills are developed in practical shop work using components mounted on stands. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice. Diagnosing and repair work is assigned on scheduled vehicles.

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks and buses powered by a variety of internal combustion engines. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

Automobile mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines and other types of 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. They use shop manuals and other technical publications to assist in analysis, disassembly and assembly of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all-around" training in general automotive repair.

#### **AUTOMOTIVE MECHANICS**

		Hours Per	Week	
		Class	Lab	Hours Credit
FIRST Q	UARTER			
	01—Fundamentals of Mathematics 01—Reading Improvement		0 0	5
PME 110	01—Internal Combustion Engines	3	15	5 3 8 4
DFT 11(	01—Schematics and Diagrams	3	2	4
		14	17	20
SECOND	QUARTER			
MAT 11(	02—Mathematics		0	5
PHY 110 PMF 110	05—Shop Science I 02—Engine Electrical and Fuel Systems	3	$2 \\ 12$	4
WLD 112	29—Basic Welding	2	4	9
		$\frac{1}{15}$	18	$\frac{1}{21}$
THIRD G	QUARTER			
PHY 11(	06—Shop Science II	3	2	4
AUT 112	23—Brakes, Chassis and Suspension System	s 3	12	7
ENG 11	01—Automotive Air Conditioning 02—Business Writing	2 3	$\frac{3}{0}$	7 3 3
		 11	$\overline{17}$	$\frac{1}{17}$
FOURTH	QUARTER		1.	1,
	24—Automotive Power Train Systems	9	19	7
AUT 112	24—Auto Servicing I 03—Small Business Operations	0 3	$\frac{12}{9}$	7 6 3
BUS 11(	03—Small Business Operations	3	0	3
		9	21	16
FIFTH G	UARTER			
PME 120	02Auto Electrical/Electronics	3	6	5
PME 120 MEC 110	03—Automotive Engine Tune-Up 00—Machine Shop: Basic	- 4 2	9 6	7 4
CLV/III O		9	21	16
	UARTER			
	24—Advanced Automatic Transmissions 21—Front Suspension, Alignment and	3	12	7
	Power Steering	. 1	6	3
1 1/15 1/22	26—Automobile Servicing II or Elective	Z	6	4
		6	24	14

NOTE: A diploma may be awarded for the successful completion of a Four-Quarter Program.

Co-op Summer Work (PME 1184) may be arranged for students who are pursuing the Six-Quarter Program.

A diploma may be awarded for the successful completion of a Six-Quarter Program.

# DENTAL ASSISTANT

Dental assisting is one of the fastest growing occupations for women today. The role of the dental assistant has evolved from that of receptionist only to that of a fully participating member of the dental team; primary emphasis is on chairside assisting, although she continues to perform numerous duties related to office management, patient relations, and laboratory procedures. The dental profession now recognizes the contribution the dental assistant can make to extension of services and increased productivity of the dental office. Projected needs call for a fivefold expansion in numbers of graduates and continued improvement in the quality of training programs.

The specific objectives of the Dental Assistant Curriculum are to develop the following competencies:

- 1. Understanding of procedures and beginning skills of dental office management.
- 2. Understanding of principles and beginning skill in the procedures of chairside assisting, including effective patient relationships.
- 3. Understanding of principles and beginning skills in performance of selected laboratory procedures commonly carried out in the dental office.

The duties of the dental assistant vary somewhat, depending on the number of auxiliary workers employed. In some offices the assistant is responsible for all three areas described below; in others, she may be responsible for only one area.

In rendering chairside assistance to the dentist, the dental assistant is responsible for placing instruments for use, keeping the operating field clear during treatment, preparing restorative materials and dental cements, passing materials and instruments during dental procedures, applying fluorides and topical anesthesia under direction of the dentist and complete sterilization of instruments and cleanliness of operatory after use. In the laboratory of the dental office, she may make models of the teeth and mouth, cast inlays and crowns, expose and process x-ray films and mount finished x-rays. In acting as office manager and receptionist, she receives patients, arrange appointments, records treatments, keeps accounts, maintains inventories, and orders supplies.

### DENTAL ASSISTANT

	Hours	Per Week	
FIRST QUARTER	Class	s Lab	Hours Credit
DEN 1001—Introduction to De		0	2
DEN 1002—Dental Materials	-	9	6
DEN 1003—Dental Anatomy		2	2
BIO 1101—Preclinical—Micro	biology & Gross		
Anatomy & H	Physiology 2	2	3
ENG 1102—Business Writing		0	3
BUS* 102—Beginning Typews	riting 2	3	3
	13	16	19
SECOND QUARTER			
SECOND QUANTER			
DEN 1004—Preclinical Science	es	0	4
DEN 1005-Dental Accounting	g 3	2	4
DEN 1006-Clinical Procedure	s I	6	5
DEN 1012—Dental Roentgenol	ogy 2	6	4
ENG 1103—Communication S	kills 3	0	3
	$\overline{15}$	14	20
THIRD QUARTER			
DEN 1007—Clinical Procedure	s II	6	6
DEN 1013—Oral Health Education		2	2
DEN 1008—Dental Office Man		3	5
DEN 1009—Dental Office Pra	ctice I 0	12	4
	9	23	17
FOURTH QUARTER			
DEN 1010—Dental Office Pra	atian II 0	21	7
DEN 1010-Dental Office Fra DEN 1011-Dental Assistant		21 0	2
PSY 1101—Human Relations		0	23
i Si iiui—iiuiiaii itelatiolis			
	5	21	12

\*If a qualification examination in this course indicates average or better skills at this level, BUS 103 or a course approved by the department may be taken.

# ELECTRICAL INSTALLATION AND MAINTENANCE

The rapid expansion of the national economy and the increasing development of new electrical products is providing a growing need for qualified people to install and maintain electrical equipment. By mid-1960 more than 350,000 were employed as either construction electricians or maintenance electricians. Between 5,000 and 10,000 additional tradesmen are required each year to replace those leaving the industry. The majority of the electrical tradesmen today are trained through apprenticeship or on-the-job training programs.

This curriculum guide will provide a training program in the basic knowledge, fundamentals, and practices involved in the electrical trades. A larger portion of the program is devoted to laboratory and shop instruction which is designed to give the student practical knowledge and application experience in the fundamentals taught in class.

The graduate of the electrical trades program will be qualified to enter an electrical trade as an on-the-job trainee or apprentice, where he will assist in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial plants. He will have an understanding of the fundamentals of the National Electrical Code regulations as related to wiring installations, electrical circuits, and the measurements of voltage, current, power, and power factor of single and polyphase alternating circuits. He will have a basic knowledge of motor and motor control systems; industrial electronic control systems; business procedures, organization, and practices; communicative skills; and the necessary background to be able to advance through experience and additional training through up-grading courses offered in the center.

# ELECTRICAL INSTALLATION AND MAINTENANCE

FIRS'	T QUARTER	Hours Per	Week	Quarter Hours
		Class	Lab	Credit
ELC	1112—Electrical Theory		9	8
	1127—Electrical Materials & Tools		3	1
ENG	1101—Reading Improvement	3	0	3
MAT	1115—Electrical Mathematics	5	0	5
$\mathbf{PHY}$	1105—Shop Science I	3	2	4
		16	$\frac{-}{14}$	$\frac{-}{21}$
		10	14	21
SECO	ND QUARTER			
	1126—National Electrical Code		4	4
	1109—Electrical Blueprints & Layouts		0	1
	1124A — Residential Wiring		6	5
	1102—Business Writing		0	3
PHY	1106—Shop Science II	3	2	4
		20	8	17
THIRD QUARTER				
ELC	1124B — Residential Installations		6	4
	1101—Human Relations		0	3
ELC	1113—Electric Motors & Controls	3	9	6
ELC	1125A — Commercial Installations	3	3	4
			10	1.7
		11	18	17
FOUF	RTH QUARTER			
ELC	1128B — Commercial Installations		15	13
ELC	1129—Industrial Installations		6	5
	1103—Small Business Operations		0	3
			_	_
		14	21	21

### MASONRY

Masons are the craftsmen in the building trades that work with artificial stone, brick, concrete masonry units, stone and the like. During the past decade there has been a steady increase in the demand for these craftsmen. As building construction continues to increase the demand for bricklayers, cement masons, and stonemasons will also increase.

This curriculum in Masonry is designed to train the individual to enter the trade with the knowledge and basic skills that will enable him to perform effectively. He must have a knowledge of basic mathematics, blue print reading and masonry technology. He must know the methods used in laying out a masonry job with specific reference to rigid insulation, refractories, and masonry units specified for residential, commercial and industrial construction.

Most employment opportunities for masons may be found with contractors in new building construction. However, a substantial portion of masons are self-employed or work with contractors doing repair, alteration, or modernization work.

Most masons are employed by contractors in the building construction fields to lay brick, and blocks made of tile, concrete, gypsum or terra cotta. Also, he constructs or repairs walls, partitions, arches, sewers, furnaces and other masonry structures.

After gaining experience in the various types of masonry trade along with leadership training, it is possible for the tradesman to become a foreman, inspector and eventually a contractor.

FIRST	r quarter	Hours Per Class	r Week Lab	Quarter Hours Credit	
MAT	1101—Bricklaying 1101—Fundamentals of Mathematics 1110—Blueprint Reading: Building Trades	5 5	$\begin{array}{c}15\\0\\3\end{array}$	10 5 1	
		10	18	16	
SECOND QUARTER					
MAT	1102—Bricklaying 1112—Building Trades Mathematics 1111—Blueprint Reading & Sketching	3	$ \begin{array}{c} 15\\ 0\\ 3\\ \hline 18 \end{array} $		
THIRD QUARTER					
MAS	1103—General Masonry 1113—Masonry Estimating 1112—Blueprint Reading & Sketching	3	$\begin{array}{c}15\\3\\3\end{array}$	$\begin{array}{c}10\\4\\1\end{array}$	
		8	21	15	

# PRACTICAL NURSE EDUCATION

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the State Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education in local systems, community colleges, technical institutes and in industrial education centers throughout the state.

The aid of the Practical Nurse Education Program is to prepare qualified persons for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

Students are selected on the basis of demonstrated aptitude for nursing as determined by pre-entrance tests, interviews with faculty members, high school record, character references, and reports of medical and dental examination.

Throughout the one-year program the student is expected to grow continuously in acquisition of knowledge and understandings related to nursing, the biological sciences, the social sciences and in skills related to nursing practice, communications, interpersonal relations, and use of good judgment. Evaluation of student performance consists of tests on all phases of course content, evaluation of clinical performance, and evaluation of adjustment to the responsibilities of nursing. A passing score is required on all graded work, plus demonstrated progress in application of nursing skills to actual patient care.

Graduates of accredited programs of practical nurse education are eligible to take the licensing examination given by the North Carolina Board of Nursing. This examination is given twice each year, usually in April and September. A passing score entitles the individual to receive a license and to use a legal title "Licensed Practical Nurse." The license must be renewed annually. The Licensed Practical Nurse can apply for licensure in other states on the basis of satisfactory examination score, without repeating the examination.

The LPN is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices and, in some localities, public health facilities. In all situations the LPN functions under supervision of a registered nurse and/or licensed physician. This supervision may be minimal in situations where the patient's condition is stable and not complex; or it may consist of continuous direction in situations requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

Job requirements for the Licensed Practical Nurse include suitable personal characteristics, ability to adapt knowledge and understanding of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others, and readiness to conform to the requirements of nursing ethics and hospital policies.

The practical nursing curriculum is designed as a core curriculum (fused course content) with the focus on nursing elements; concepts and facts from other subject areas are presented as they relate to specific units of nursing. The purpose of this design is to facilitate student application of learnings to nursing practice, i.e. to promote transfer of learning from related subjects to nursing theory and from classroom study to clinical application. Quarter hours of credit have not been assigned, in that this design does not lend itself to such an hourly and credit breakdown. Instead the minimum contact hours needed for adequate coverage of course material is indicated for class and laboratory (including clinical) experiences; these weekly contact hours are approximate and are averages, as there is necessarily some variation from week to week, especially during the first quarter. It is the prerogative of the local institution, however, to allocate credit hours if this is desired for administrative purposes.

Organizing elements for the core curriculum includes communications and human relations, as well as certain elements from nursing practice such as ethics, legal aspects, standards of practice and role perception. If subjects such as English or Human Relations are to be required as separate courses, care must be taken to avoid deletion of nursing content. The alloted times provide for learning experiences with multiple objectives, to include communications and human relations skills as well as nursing skills. The addition of other courses, though justifiable in terms of educational standards for one-year programs, create the hazards of excessively heavy student load or omission of important nursing content.

Each Practical Nurse Education Program must necessarily make certain adaptations in the curriculum design, because of differences in institutional policies and because of the wide diversity in facilities utilized for the clinical phase of the programs. If administrative personnel of the practical nursing faculty prefer a subjectoriented curriculum, such an organizational plan can readily be prepared from teacher-made outlines or from the core curriculum course materials. In making adaptations, administrators and faculty members are cautioned to keep in mind that the core design incorporates sound educational principles: units are based on specific nursing content and relevant basic information from other subject areas, so that relationships are readily understood by the student; sequences are planned for definite progression from simple or familiar concept to more complex and unfamiliar ones; and units progress from normal, to moderate deviations from normal, to serious deviations. The seven units of the first quarter are relatively fixed, with each building on preceding units to a great extent. Beginning in the second quarter, unit sequence is flexible and should be carefully planned by each teacher to adapt the instructional plan to the local situation. This planning, however, should result in a progression of units that will be conducive to effective learning.

#### SUGGESTED CURRICULUM BY QUARTERS

Course Title		Per Week Lab*			
FIRST QUARTER					
NUR 1001—Practical Nursing I	28	2	<b>33</b> 0		
SECOND QUARTER					
NUR 1002-Practical Nursing II	12	24	396		
THIRD QUARTER					
NUR 1003—Practical Nursing III	12	24	396		
FOURTH QUARTER					
NUR 1004—Practical Nursing IV	12	24	396		
	r	TOTAL	1518		

# **RADIO AND TELEVISION SERVICING**

Within recent years improved electronic techniques have provided expanded entertainment and educational facilities in the form of monochrome and color television, frequency modulated radio, high fidelity amplifiers and stereophonic sound equipment. These developments require expanded knowledge and skill of the individual who would qualify as a competent and up-to-date serviceman.

This curriculum guide provides a training program which will provide the basic knowledge and skills involved in the installation, maintenance and servicing of radio, television and sound amplifier system. A large portion of time is spent in the laboratory verifying electronic principles and developing servicing techniques.

A radio and television serviceman may be required to install, maintain and service amplitude modulated and frequency modulated home and auto radios, transistorized radios, monochrome and color television sets, intercommunication, public address and paging systems, high fidelity and stereophonic amplifiers, record players and tape recorders.

His work will require meeting the public both in the repair shop and on service calls. A serviceman who establishes his own business will also need to know how to maintain business records and inventory.



### **RADIO AND TELEVISION SERVICING**

#### SUGGESTED CURRICULUM BY QUARTERS

		Hours Per	Week	Quarter Credit
С	ourse Title	Class	Lab	Hours
FIRS'	<b>F</b> QUARTER			
ENG	1115—Electrical Mathematics 1101—Reading Improvement 1112—Direct and Alternating Current	3	$0\\15\\\overline{15}$	$5$ $3$ $10$ $\overline{18}$
SECO	ND QUARTER			
ENG ELN	1116—Electrical Mathematics 1102—Business Writing 1122—Vacuum Tubes and Circuits 1125—Transistor Theory & Circuits I	3 5	$0$ $0$ $9$ $6$ $\overline{15}$	$5$ $3$ $8$ $4$ $\overline{20}$
THIR	D QUARTER			
ELN PSY ELN	1126—Transistor Theory & Circuits II 1101—Human Relations 1124—Servicing Home Entertainment Electronic Devices		9 0 6	5 3 4
ELN	1123—Introduction to Television		$\frac{6}{21}$	$\frac{4}{16}$
FOUF	RTH QUARTER			
ELN BUS	1127—Television Receiver Circuits & Servicing 1103—Small Business Operations		$     15     0     \overline{15} $	$     15 \\     3 \\     \overline{18}   $

#### WELDING

This curriculum was developed to fill the tremendous need for welders in North Carolina. The recently completed Manpower Survey shows quite clearly that many welders will be needed annually to fill present and projected vacancies in the State.

The content of this curriculum is designed to give students sound understanding of the principles, methods, techniques and skills essential for successful employment in the welding field and metals industry.

The field of welding offers a person prestige, security and a future of continuous employment with steady advancement. It offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, railroads, construction, pipe fitting, production shop, job shop and many others.

Welders join metals by applying intense heat and sometimes pressure, to melt the edges to form a permanent bond. Closely related to welding is "oxygen cutting." Of the more than 35 different ways of welding metals, arc, gas, and resistance welding are the three most important.

The principal duty of the welder using manual techniques is to control the melting by directing the heat from either an electric arc or gas welding torch, and to add filler metal where necessary to complete the joint. He should possess a great deal of manipulative skill with a knowledge of jigs, welding symbols, mathematics, basic metallurgy, and blueprint reading.



#### WELDING

#### SUGGESTED CURRICULUM BY QUARTERS

	Hours Per	Week	Quarter Credit	
Course Title	Class	Lab	Hours	
FIRST QUARTER				
WLD 1120—Oxyacetylene Welding and Cutting MAT 1101—Fundamentals of Mathematics DFT 1104—Blueprint Reading: Mechanical PHY 1101—Applied Science ENG 1101—Reading Improvement and Grammar	5 0 3 3	$     \begin{array}{c}       12 \\       0 \\       3 \\       2 \\       0 \\       \overline{}     \end{array} $	7 5 1 4 3 $-2$	
SECOND QUARTER	14	17	20	
WLD 1121—Arc Welding MAT 1103—Geometry DFT 1117—Blueprint Reading: Welding PHY 1102—Applied Science ENG 1102—Business Writing	3 0 3	$12 \\ 0 \\ 3 \\ 2 \\ 0$	7 3 1 4 3	
	12	17	18	
THIRD QUARTER				
WLD 1124—Pipe Welding WLD 1123—Inert Gas Welding WLD 1112—Mechanical Testing and Inspection DFT 1118—Pattern Development and Sketching PSY 1101—Human Relations	1 1 0	$     \begin{array}{r}       12 \\       3 \\       3 \\       0 \\       \overline{21}     \end{array} $	7 2 2 1 3 15	
FOURTH QUARTER				
WLD 1122—Commercial and Industrial Practices	3 0	$9$ $6$ $6$ $0$ $\overline{21}$	$6$ 5 2 3 $\overline{16}$	

# DEVELOPMENTAL BUSINESS INTRODUCTION

The Developmental Business Program is an integrated, student-centered program of instruction designed to increase the likelihood of success for students who enter this institute with academic deficiencies. The goal of this program is to develop academic ability of every entering student to the extent that he has an average likelihood of success in one of the regular business curricula areas.

Students are initially assigned to courses appropriate to their desires, to their tested abilities, and as deemed proper by their counselors. As each student progresses, he is permitted to develop at his own speed, in classes which are within his level of competence.

As the individual student displays sufficient competence in an area of study he is guided to the next higher level of study, that is, into a study which holds challenge for the student and which will contribute to his academic, technical, or vocational development.

Each student is encouraged to progress to his utmost capability, and upon completion of the program is permitted to select a curriculum consistent with his proved performance.

The Developmental Business courses combine academic courses and laboratory/shop instruction to provide students with integrated theory—procedures and practical applicatory understanding of the subject matter requisite to regular curricular success.

Students may spend from one quarter to three quarters, or more, in the Developmental Business Program. However, normally, the student will stay in the program for three quarters (one academic year).

FIRST	QUARTER	Hours Po Class	er Week Lab	Quarter Hours Credit
ENG	93—Reading and Vocabulary I		0	5
MAT	93—Mathematics I	5	Ō	5
BUS	94—Bookkeeping I		2	4
BUS	95—General Business	3	2	4
~ ~ ~ ~ ~ ~		16	4	18
SECO	ND QUARTER			
ENG	94—Reading and Vocabulary II	5	0	5
MAT	94—Mathematics II	5	0	5
BUS	98—Bookkeeping II	3	2	4
BUS	97—Economics I	5	0	5
		18	2	19
THIRI	<b>D</b> QUARTER			
ENG	95—Composition and Grammar	5	0	5
MAT	95—Mathematics III	5	0	5
BUS	91—Business Machines		2	4
BUS	99—Economics II	5	0	5
		18	2	19

# ADULT-EXTENSION EDUCATION AND COMMUNITY SERVICE PROGRAMS DIVISION OF CONTINUING EDUCATION

General Information: An important function of Coastal Carolina Community College is to provide educational opportunities to all adults in the area. The Division of Continuing Education does this by providing opportunities for adults to return to school to pick up where they left off in their educational programs. In addition, this Adult-Extension Programs offers opportunities in **up-grading courses, skills improvement** and **completion of high school education**. More than this, the program provides for all adults a general education program which will help them better understand the nature of the changing world and its implications on their community.

Adult-Extension Classes are offered both on and off campus, usually during the evening hours, but can be held at any time. To meet the increasing demand for adult-extension courses, additional classrooms are required off-campus. Therefore, a cooperative agreement has been made between the Board of Education of Onslow County and Coastal Carolina to use designated public school facilities. Classes may be organized in other locations where suitable facilities are made available.

Coastal Carolina Community College will establish appropriate classes where needs arise in cooperation with local officials at any suitable location in Onslow County.

Where Adult-Extension Classes are established, the most qualified teacher available will be employed by the College to teach and act as liaison between the Dean of Continuing Education in the operation of the class.

Announcements concerning dates and times of classes will be made separately for each class, usually in the weekly "Coastal Carolina Continuing Education" bulletin in the local paper on Wednesdays. Coastal Carolina Community College reserves the right to limit class enrollment and to cancel any classes for reasons beyond its control.

At least ten (10) persons must enroll to begin a class. If the average attendance of a class falls below six (6) at anytime, the class shall be discontinued. If a need arises for a class in your area, call Dean of Continuing Education, Coastal Carolina Community College, telephone 455-1221.

Eligibility: To enroll in courses offered in the Adult-Extension Education Program, a person must be at least eighteen (18) years of age or if under eighteen (18), not in high school. Academic Credit: Generally courses offered in the Adult-Extension Program are non-credit. However, credit will be given in the Adult High School Diploma Program. Certificates may be awarded students who successfully complete certain vocational-extension programs.

When Courses Will Begin: May be started at anytime to meet certain needs. The time and dates for registration for courses, generally will be announced separately in "Coastal Carolina Continuing Education" bulletin, found in the local Wednesday paper.

**Time of Class Meetings:** Most classes meet between the hours of 6:30 p.m. and 9:30 p.m. daily, except Saturdays, most class periods will be three (one-half-hours) in length, some classes may be longer. Schedules showing place, time, and dates will be published each time separately.

**To Register:** Normally, registration for classes offered will be on the first night of class. Registration is on a first come first serve basis.

Attendance: Students are encouraged to attend all classes. In order for a student to be presented an Attendance Award, he must attend at least eighty (80) per-cent of the classes as well as successfully complete the prescribed course.

**Fees:** There are no tuition fees for Continuing Adult Classes. However, where machines such as typewriters, sewing machines, and etc., a small rental fee is charged.

Self-Supporting Programs: Certain seminars, cultural exhibits and similar programs may be organized on a self-supporting basis. The only income from fees for such programs must defray the expenses. Self-supporting classes in recreational or vocational courses may be organized upon approval of the Department of Community Colleges.

**Counseling:** Adults who desire counseling regarding their education or career plans should contact the Dean of Student Personnel Services.

## A. GENERAL ADULT EDUCATIONAL PROGRAMS:

**GA-1- ADULT BASIC EDUCATION:** The program of Adult Basic Education is essentially designed to improve an adult's ability to speak, read and write the English language. Other areas such as arithmetic, science, and social studies are included in the instructional program. Specifically, the objectives of the Adult Basic Education are:

(a) Provide instruction for those individuals who have attained age eighteen (18) and whose inability to read and write the English language constitutes a substantial impairment of their real ability.

(b) Provide instruction in the basic education skills for those individuals who have attained eighteen (18) years of age, who are in need of this training to enable them to function to the fullest of their realistic potential as citizens.

(c) Improve their ability to benefit from occupational training, and

(d) Increase their opportunity for more productive and profitable employment.

In accordance with the North Carolina plan for Adult-Basic Education, first priority will be given to persons functioning at the fifth grade level or below. Second priority will be given to persons functioning above the fifth and through the eighth grade level.

The program is based upon the philosophy that every individual, regardless of the status of his functional level, should have the opportunity to participate in continuing educational activities. The philosophy further incorporates the belief that every individual is teachable, trainable, and can realize self-improvement.

Through the cooperation of local community agencies and organizations, facilities should be available without cost. According to the policy of the State Board of Education, no charge is made for adults enrolled in the adult basic education program.

Class locations are established throughout the area and are open to all interested adults. In such cases where special interest warrants the establishment of a new class, the institution will attempt to provide such instruction.

## GA-2- ADULT HIGH SCHOOL DIPLOMA PROGRAM

The Program: This program offers an Adult High School Diploma which is issued by the Onslow County School Board upon recommendation from the institute that the student has completed the prescribed course of study. A student may transfer credit for course credit earned in a public high school if he can show a transcript so stating. The course required for completion are:

English I English II English III English IV General Mathematics General Science American History Government or Civics Biology

Electives to bring total units to sixteen (16) Grades nine (9) through twelve (12) The student may purchase their own texts at the small charge our bookstore must make for them.

Classes in all areas of the High School Program can be and are being offered all over Onslow County.

To have courses in the High School Program offered in your area of the county at no expense to you (other than textbooks where one is required) call Dean of Continuing Education, Coastal Carolina Community College.

High School Entrance Requirements: Adults must be nineteen (19) years of age or older. Each enrollee must have completed the eighth grade, or have a transcript from an accredited high school showing courses and years of work completed, or make a satisfactory score on the placement record.

**Organization of High School Classes:** Classes are held on-campus or at the on-campus Learning Laboratory daily, Monday through Friday, and at nights 6:30 P.M. to 9:30 P.M., Monday through Thursday. Classes at Adult-Extension locations will be announced separately.

High School Equivalency Examination: Another program for the adult who has not completed high school is the High School Equivalency Program. Through the Programmed Learning Laboratory and other secondary classes, the student may prepare himself to take the General Development Tests. Upon achieving an acceptable score in the areas of English expression, literature, mathematics, social studies, and natural science a student may be awarded a High School Equivalency Certificate by the North Carolina State Department of Education. This certificate is generally accepted on the same basis as the High School Diploma for entrance into college, employment, or promotion. For information contact the office of the Dean of Student Personnel.

## **GA-3- ADVANCED ACADEMIC COURSES**

Advanced academic education provides adults with general courses to widen horizons and create new dimension in thinking and acting. Some of the courses offered in this area are as follows:

Modern Math for Parents	English Improvement and
Literature	Vocabulary Building
Logic: Argument and Debate	Seminar: Human Resources
Behavioral Psychology	and Manpower
Conference Leadership and	Current Trends in Science
Presentation Techniques	Community Affairs Seminars

and any others

## **GA-4- BUSINESS EDUCATION**

Courses in Business Education are planned especially for adults who desire business education for personal purposes. Among the courses provided by the College are the following:

Personal Typing	Estate Planning
Business English	Law for Layman
A B C Stenoscript	Investments (Stocks, Bonds,
Bookkeeping	and Mutual Funds)
Business Correspondence	and others

## **GA-5- CITIZENSHIP DEVELOPMENT**

The development of creative citizenship responsive to community potential and problems is an imperative of these times. Courses in citizenship education contribute to such development. Among the citizenship development courses offered by Coastal Carolina Community College are the following:

American History	State Government	
World History	Americanization	
North Carolina History	English for New Americans	
United Nations	and others	

## **GA-6- HOMEMAKING EDUCATION**

Homemaking Education is designed to help family members take advantage of emerging opportunities in education. Adult education courses in homemaking suggest scores of ways to help make family life more exciting, more enjoyable, and more economical. Among the courses offered by the College are the following:

Creative Crafts	Flower Growing
Knitting	Flower Arranging
Home Sewing	Interior Decorating
Ornamental Horticulture	and many others

## **GA-7- CONSUMER EDUCATION**

Consumer Education contributes to efficient consumption of America's vast storehouse of economic goods. Among the courses available are the following:

Basic Economics Buying a Home Budgeting Home Record Keeping Tips on Household Repairs (for women)

Personal Income Tax Law for Layman Investments (Stocks, Bonds, and Mutual Funds) and others

## **GA-8- HEALTH AND SAFETY EDUCATION**

Health Education and Safety courses are especially designed for the improvement of health and the safety of people. Courses are available as follows:

Boating Education and Safety	Hunter Safety Training
Basic Seamanship and	First Aid
Navigation	Home Fire Safety
Small Boat Handling	and others

## **GA-9- LANGUAGE ARTS EDUCATION**

Language Arts Education provides adults with courses to widen horizons and create new dimensions in thinking and acting. Some of the courses offered in the area are the following:

Conversational Spanish Conversational French Speed Reading Creative Writing

Public Speaking Literature Parliamentary Procedure Improved Listening

and others

## **GA-10-CREATIVE ARTS EDUCATION**

Creative Arts Education is designed to help adults discover and develop laten talents, refine active talents, and develop interest in and appreciation of the fine arts heritage of our society. Courses which are offered in Creative Arts Education by the College include the following:

Oil Painting	History of Art
Water Color Painting	Music Appreciation
Drawing	Choral Music
Landscape Painting	and others

## **GA-11-FAMILY LIFE PROGRAMS**

The Family Life Program includes Parent Education and Senior Citizen Education.

## **GA-12-PARENT EDUCATION**

Parent Education is designed to contribute new ideas and approaches to rearing children providing solutions to parent-youth problems. This program is designed to make family life more satisfactory in the midst of a changing world. Courses include the following:

The Pre-School Child The Child 6 to 12 years Understanding Teenagers Baby Care Marriage and Family Life and others

## **GA-13-SENIOR CITIZENS EDUCATION**

American citizens are living longer and are more active in their senior years. Time is available to participate in a variety of learning experiences which earlier years may not have permitted. Among the learning experiences provided especially for senior citizens are the following:

Health for Senior	Citizens	Retirement Planning	
Home Gardening		Challenge of Maturity	
Arts and Crafts		Travel Tour Lectures	
Great Thinkers Human Relations			
and others			

and others

## **B. OCCUPATIONAL EXTENSION**

Occupational education extension courses are designed to serve adults who are employed or are seeking employment at the skilled, technical and sub-professional levels. Persons in professional occupations may also profit from such instruction by learning of new developments in their field.

Any adult eighteen (18) years or older who needs training or retraining or who can otherwise profit from the proposed instruction may be enrolled. Enrollees who are employed normally attend training during their non-working hours to increase their skills and understanding, to improve their competency and qualify for advancement.

## **OE-1-BUSINESS EDUCATION**

Courses in office occupations are planned for adults who desire business education for up-grading or job-related purposes. Among the courses provided are as follows:

Typing	Business Corre	spondence
Business English	<b>Business Math</b>	
Gregg Shorthand	<b>Business Mach</b>	ines
Bookkeeping	and others	5

## **OE-2-DISTRIBUTIVE TRAINING**

There is a growing need for better trained retail personnel in the College's Service Area. The College offers opportunity for training in distributive education. Classes are available in the following subject areas:

Creative Salesmanship Marketing Research Commercial Art

Advertising Credit and Collections Customer Relations

## **OE-3-NEW INDUSTRY TRAINING**

Coastal Carolina Community College, in cooperation with the industrial Services Division of the North Carolina Department of Community Colleges, provides instruction for new and expanding industries.

This program incorporates job analysis, instructor recruiting and-or training, financial suport for job instruction and an adaptation for continuous training. Such training aids in more efficient plant production for industry and greater opportunity for advancement of the employee. New industry planning to locate in the area or industries who are planning on expansion and are interested in this training should contact Coastal Carolina Community College or Department of Community Colleges, Raleigh, North Carolina.

## **OE-4-SUPERVISORY DEVELOPMENT TRAINING**

Supervisory Development Training courses are designed for potential and active supervisors who want to prepare for more effective leadership and advancement. Courses are available in numerous subject areas including the following:

Principles of Supervision Human Relations Effective Communications Effective Speaking Effective Writing Reading Improvement Economics in Business and Industry The Supervisor Work Measurement

Job Methods Industrial First Aid Safety and Accident Prevention Cost Accounting Conference Leadership Instructor Training Job Analysis Training Creative Thinking Supervision in Hospitals

and others

## **OE-5-LAW ENFORCEMENT TRAINING**

Law Enforcement Training may be requested by local towns and local law enforcement agencies. It is especially designed as inservice education for those now engaged in law enforcement activities. Among courses provided by the College are the following:

Courts and Laws Elements of Offense Motor Vehicle Law Criminal Investigation Juveniles Applied Psychology Human Relations Chemical Test Riot Control and others

## **OE-6-FIRE SERVICE TRAINING**

Fire Service Training is designed to provide firemen the opportunity to gain technical information and skill in modern fire fighting through a variety of learning experiences and practical problems. The classes are often taken to the fireman through training sessions held in local departments. Among the courses offered are the following:

Introduction to Firefighting	Rope Practices
Portable Fire	Ladder Practices
Extinguishers	Hose Practices
Fire Stream Practices	<b>Rescue Practices</b>
Fire Apparatus Practices	Forcible Entry
Fire-fighting Procedures	and others

## **OE-7-FISHERIES TRAINING**

Net Mending Marine Engine Outboard Engine Crab Picking And Others

## C. LEARNING LABORATORY

The Learning Laboratory is an important adjunct to the total college instructional program. The laboratory program is designed to provide study opportunities in practically any field in which an adult or college student might be interested. In the Center are numerous programmed instruction courses in English, reading, mathematics, science, business, social studies, and foreign languages.

Programs are designed to meet the needs of individuals at all levels from non-readers to the college graduate. Students may study for an Adult High School Diploma or prepare for the General Education Development Tests. Others may study to remedy an academic weakness, before or after entering College, or supplement a course or pursue a particular course for personal interest.

The Center is essentially an individual study situation in which programmed instruction is used. Programmed instruction courses are designed so as to aid the student in learning information in small sequences called "frames." Each frame requires an immediate response, and each response is checked immediately. If the student makes the incorrect response, the program makes the correction or re-teaches.

The Laboratory is open during the day, Monday through Friday and Monday through Thursday evenings so students may study several hours a day or night. It is located on-campus and located in Bldg. No. 11, Camp Lejeune.

There are no fees charged for a study in the Programmed Instruction Learning Laboratory, and a coordinator is available at all times to assist students with any programs. For information about either the campus laboratory or the laboratory at Camp Lejeune, call the laboratory coordinator at either the college or the base.

## **D. COMMUNITY SERVICES**

Coastal Carolina Community College sponsors and promotes a number of community services. These services contribute to the cultural, economic and civic development of the community. Also, the college may be host to a number of local, state and national groups that will conduct seminars and conferences on campus. The centrally located campus with its conference rooms and other facilities is ideally suited for conferences and seminars. Lodging and restaurants and other facilities are located nearby for the out-oftown conferee. Among the more frequently offered community services are the following:

Seminars and Conferences	Community Studies
Speakers Bureau	Consultant Services
Art Exhibits	Discussion Groups
Fine Arts Series	Musical Programs
and many	others

## NORTH CAROLINA APPROVED DRIVING SCHOOL

Coastal Carolina Community College offers a complete Driving School to all individuals in the Onslow County service area. The school takes the non-drivers through 33 hours of comprehensive classroom work and 18 hours in-the-car driving.

For further information about the Driving School call, Dean of Continuing Education.

## TO SUMMARIZE EXTENSION. GENERAL ADULT, OR COMMUNITY SERVICE PROGRAMS:

Any other course or program can be offered by the Coastal Carolina Community College anywhere in Onslow County depending on several factors:

- 1. Ten people or more to constitute a need for a class.
- 2. A suitable classroom situation to house the program.
- 3. A qualified instructor can be employed.
- 4. That the program in question has well identified aims, realistic goals, and effective methods in accomplishing the class purpose.

To inquire about the possibility of holding any class or program in your particular area, please call the Dean of Continuing Education, Coastal Carolina Community College, telephone 455-1221, or come by and see him.

# **DESCRIPTION OF COURSES**

## **COURSE NUMBERING**

Courses at Coastal Carolina Community College are numbered in accordance with the system of the North Carolina Department of Community Colleges.

1. All preparatory or developmental courses are indicated by a three-letter prefix and numbered from 60-99. These courses are not transferable.

Example: MAT 91

- All freshman transfer courses are indicated by a three-letter prefix and are numbered 100-199. Example: MAT 101
- All sophomore transfer courses are indicated by a three-letter prefix and are numbered 200-299.
   Example: MAT 201
- 4. All freshman technical courses are indicated by a "T" and a three-letter prefix and are numbered 100-199. Example: T-BUS 183
- All sophomore technical courses are indicated by a "T" and a three-letter prefix and are numbered 200-299. Example: T-BUS 205
- 6. All vocational courses are indicated by a prefix and are numbered 1100-1299.

Example: MAT 1101

- 7. All adult education courses beyond the high school level are indicated by a prefix and are numbered 2000-2999.
- 8. All high school courses are numbered according to the North Carolina Public School numbering system.



Course Title	Hours Per Week		Quarter Hours
	Class	Lab	Credit
ARCHITECTURAL TECHNOLOGY			
T-ARC 101—Architectural Graphics I	2	6	4

A course designed to provide a fundamental knowledge of the principles of architectural drafting. The basic skills and techniques of drafting expression, sketching, architectural lettering, and use of instruments and equipment are stressed. Geometrical construction, orthographic drawing, and projection problems are studied. The principles of isometric, oblique and perspective drawings are introduced. Graphic symbols common to the various construction trades are stressed to enable one to interpret construction drawings and prints. Various methods of reproduction will be introduced.

Prerequisite: None

#### **T-ARC 102—Architectural Graphics II**

A continuation of the fundamental knowledge of the principles of architectural drafting. Projection problems dealing with descriptive geometry in architecture are studied. Drafting expression with the basic control of line quality and technique is stressed. Emphasis is placed on the student to express and produce numerous construction details using appropriate symbols and conventions on a professional level. The study of sketching and architectural lettering is continued.

Prerequisite: T-ARC 101

#### **T-ARC 103**—Architectural Graphics III

An approach in depth to the study of architectural drafting. Development of techniques in architectural lettering, dimensioning, freehand sketching and instrument drawing. Drawing of construction of details, using appropriate material symbols and conventions. Working drawings, including plans, elevations, sections, scale details and full-size details will be prepared from preliminary sketches.

Prerequisites: T-ARC 102, T-ARC 116, T-ARC 121

#### **T-ARC 116—Environmental Science I**

A general study of heating and air conditioning theory, codes, equipment, materials and the graphic symbols used. Consideration for the thermal characteristics of building materials relative to the environmental control of architectural space will be emphasized. Coordination of the physical limitations of heating and air conditioning equipment and apparatus with the structural and architectural elements will be stressed. Reading and interpretation of mechanical working drawings will be required by the student to familiarize him with various graphic techniques. Prerequisites: T-ARC 102 and T-ARC 122

#### T-ARC 121—Architectural Materials & Methods I 3

General broad base study of basic materials and methods used in the construction of architectural structures will be studied. Field trips to construction sites and study of light construction techniques are included. Prerequisite: None

#### **T-ARC 122—Architectural Materials & Methods II** 3

Materials used in the construction of architectural structures will be studied. Field trips to construction sites and the study of commercial and industrial construction methods and techniques are included. Prerequisite: T-ARC 121

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	Hours 1	Per Week	Quarter
Course Title			Hours
T-ARC 201—Architectural Graphics IV	Class 2	Lab 9	Credit 5
Drawing of structural plans and details as struction including steel, concrete, and timber propriate details and drawings necessary for of of structural members. Reference materials we draftsman with skills and knowledge in location books. Prerequisite: <b>T-ARC 103</b>	structur: construct vill be u	al compone ion and fa sed to pro	ents. Ap- brication ovide the
T-ARC 202—Architectural Graphics V	2	9 pahaniant	5 nlumbing
The application of knowledge gained in studyin and electrical requirements in architecture. working drawings, giving consideration to the tectural and structural components, for mechan requirements for a small structure. Descriptiv graphic presentation of these types of environ be stressed. Prerequisite: T-ARC 201	The stu- e coordin ical, plun e technic	dents will ation of t nbing and ques relati	prepare he archi- electrical ve to the
T-ARC 203—Architectural Graphics VI	2	9	5
Group projects, resulting in complete workin taken by the students to obtain experience in their efforts with associates. Accomplishing a architectural assignments. Site and landscap in the above and will be executed to conform practices. Consideration for the coordination of ized in the complete working drawings will be prehensive understanding of these architectur. Prerequisites: T-ARC 202, T-CIV 101	n working a group be studie n with c of the var e stresse	g and coo solution to s will be urrent pro rious elemand d to insur	rdinating a given included ofessional ents util-
T-ARC 211—Architectural Surveying	2	6	4
Basic instruments use; construction site surv will be studied. Drafting room application of preparation of site plans and cost estimating. Prerequisite: T-MAT 102	f surveyo		
T-ARC 230—Construction Estimating and Field Inspecting	3	3	4
Interpretation of working drawings for a proje and labor quantity surveys from plans and detailed estimates of cost. The student will stu- take-off, sub-contractors' estimates, overhead cedures. Detailed inspection of the construct ished work with the specifications. Prerequisite: T-ARC 235	specifica dy mater costs, an	tions; app rials take-o d bid cont	oroximate off, labor ract pro-
T-ARC 233—Office Practice Seminar	2	0	2
A study of the professional relationship of the tion of clients, contractors, suppliers, consul			

A study of the professional relationship of the architectural firm in relation of clients, contractors, suppliers, consultants and other architects. Ethics of the profession as applicable to the draftsman's role in the architectural firm will be stressed. Prerequisite: None

### T-ARC 235—Codes, Specifications and

Contract Documents 3 3 4 A study of building codes and their effect in relation of specifications and drawings. The purpose and writing of specifications will be studied along with their legal and practical application to working drawings. Contract documents will be analyzed and studied for the purpose of client-architectcontractor responsibilities, duties and mutual protection. Prerequisite: None

	Hours	Per Week	Quarter
Course Title	Class	Lab	Hours Credit
AIR CONDITIONING & REFRIGERATIO	N		
AHR 1101—Automotive Air Conditioning General introduction to the principles of refrisembly of the components and connections need the methods of operation, and control; propering the system. Use of testing equipments and general mainter Prerequisite: None	eessa <b>ry</b> F handl nent in	in the meding of ref diagnosing	chanisms, rigerants
AHR 1121—Fundamentals of Refrigeration I Terminology used in the trade, principles of ref basic system components; introduction to and p equipment found in the field today. Standard p ures are included. Prerequisite: None	ractice	with tools	and shop
AHR 1122—Fundamentals of Refrigeration II A follow-up course in basic refrigeration utilizity and equipment studied in first quarter's work, upon domestic refrigerators, freezers and wind Machines with electrical and mechanical diffi- repaired by the student. Refrigerant character facturers' service manuals are used in conjunc- Prerequisite: AHR 1121	Strong dow air culties a eristics	emphasis conditioni are brough are studie	is placed ng units. it in and
AHR 1123—Commercial Refrigeration Installation of common types of commercial r solutions prevalent in the commercial field, me units with electric, hot gas, reverse cycle and w facturers catalogs in sizing and matching sy sketching and pipe symbols.	edium a: vater de	nd low ten frost; use	nperature of manu-

Prerequisites: AHR 1122, PHY 1105

#### AHR 1124—Winter Air Conditioning I

Introduction to heating systems; furnaces, boilers, steam and hot water piping; humidifiers, air movement and noise; heat loss and new terminology. Hot air and hot water systems will be installed, operated, checked and adjusted.

Prerequisite: AHR 1123

### AHR 1125—Principles of Air Conditioning

Review of refrigerant cycle and characteristics of mechanical cooling equipment. Sensible and latent heat loads; air mixtures and dehumidification; system capacity and air distribution; pipe schematics and component symbols.

Prerequisite: AHR 1123

#### AHR 1126—Sheet Metal Layout & Fabrication I 2

Work in drafting room with instruments developing patterns on paper for popular duct fittings. Proper layout procedures are followed in work on plates including square and radius elbows, offsets, transitions, "Y" branches, and square to round fittings.

Prerequisite: None

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Course Title	Hours P	er Week	Quarter Hours
	Class	Lab	Credit
AHR 1127—Winter Air Conditioning II Stress is placed upon the burner mechanism of and wiring; burner components and system mechanical; operational problems involving dis ice technique; oil and gas burner capacity an safety. Prerequisite: AHR 1124	controls be agnosis, pr	oth electr ocedure a	rical and and serv-
AHR 1128—Control Systems Review of basic electricity and simple circle components for special applications. Electronic Motor controllers and starters. Thermostats, oil failure controls. Motorized dampers and value practice. Prerequisite: None	c and pneu solenoid	umatic op pressure	erations. switches,
AHR 1129—Air Conditioning Shop Practice I A continuation of practice on all shop procedu dent to this point; work on air conditioning co tions and troubleshooting; sheet metal duct is also duct insulation materials and procedures. Prerequisites: AHR 1123, AHR 1126	ompresso <b>r</b> s fabrication	s, central	installa-
AHR 1131—Absorption Systems Basic absorption cycle, strong solution circuitem components, system controls, direct and ineadvantages and applications. Prerequisite: AHR 1125			
AHR 1133—Air Conditioning Shop Practice II	3	6	5
Emphasis on pipe work and water circuits with phasis on control work with heat pumps, chille conditioning systems; fabrication and installa automatically operated; strengthen all manipul Prerequisite: AHR 1129	ers and din ation of m	rect expan notorized	nsion air dampers
AHR 1134—Sheet Metal Layout & Fabrication II	0	6	2
All popular types of sheet metal duct—fitting and fabricated. Shop procedures are learned ar is utilized. The trainee becomes proficient in and operations such as seaming, riveting, solde measuring are mastered. Prerequisite: AHR 1126	rs are laid all sheet the use of	t metal ed many ha	uipment and tools
AHR 1135—Electric & Hydronic Systems	3	6	5
To give a practical and working knowledge (at steam, hot and chilled water systems. Theor stallation and servicing procedures, controls an Prerequisite: None	a helpers y of opera	level) of	electric,

			01
Course Title	Hours Class	Per Week Lab	Quarter Hours Credit
AUTO BODY REPAIR AND AUTOMOTIT			
AUT 1111—Auto Body Repair I Basic principles of automobile construction, A thorough study of the requirements of a met of essential tools, formation of sheet metal in straightening simple damage. The student app straightening, shrinking, filling, aligning and Prerequisite: None	tal work nto ang plies the	er including les and cro e basic prin	g the use owns and nciples of
AUT 1112—Auto Body Repair II Development of skills to shrink stretched me of the metal for painting. Straightening of of fitting and aligning of panels. Removal and r checking and straightening of damaged fran pricing and ordering of parts and developing customer. Practice of spot repairs and comple Prerequisites: AUT 1111, WLD 1101, MAT 110	doors, he eplacem mes. Wr g the fin te repai	oods and d ent of oute riting of e nal settlem nting of ve	eck lids; er panels, stimates, ent with
AUT 1113—Metal Finishing and Painting A continuation of all phases of instruction cover 1112, making the instruction as realistic as p and refinishing cars with actual collision dam be placed on paint products, technique of use problems. Also included in this quarter is AUT tive glass and trim. Prerequisites: AUT 1112, WLD 1105	possible nage. Sp , color 1	by making becial emph matching a	repairs asis will and paint
AUT 1114—Body Shop Applications General introduction and instruction in the auto sion systems, the methods of operation and co vehicle. Unit job application covers straightening alignment. The student applies all phases of estimates, parts ordering, repairs and refinits Prerequisites: AUT 1113, AUT 1115, BUS 1103	ontrol an ing of fr f trainin hing of	nd the safet rames and f ng such as	ty of the front end
AUT 1115—Trim, Glass and Upholstery Familiarization of various methods of attachin and hardware. Instruction in proper installati glasses, aligning and sealing windshields and re precautions. Instruction in materials and m interior trim and upholstery. This course is AUT 1113. Prerequisite: AUT 1112	on and ear glass nethods	adjustment ses, stressir used for	of door ng safety cleaning
AUT 1123—Brakes, Chassis and Suspension System A complete study of various braking systems en light weight trucks. Emphasis is placed on ho justment and repair. Also, the servicing of par Principles and functions of the components of tical job instruction in adjusting and repairing Prerequisite: None	mployed ow they rking br f autom	operate, pr akes is em otive chass	oper ad- phasized. is. Prac-
AUT 1124—Automotive Power Train Systems Principles and functions of automotive power transmission gears, drive shaft assemblies, re Identification of troubles, servicing, and repair Proposuisite: None	ear axle	12 systems: s and diffe	7 clutches, erentials.

Prerequisite: None

Course Title		Per Week	Hours
	Class	Lab	Credit
AUT 1125—Auto Servicing I Emphasis is on the shop procedures necessa various component systems of the automobile. motive systems, provides a full range of exper repairing and replacing components. A close s motive shop situation will be maintained. Prerequisites: PME 1102, AUT 1123	. "Trouble riences in	eshooting" testing, a	' of auto- adjusting,
PME 1101—Internal Combustion Engines	3	15	8
Development of a thorough knowledge and a and storing the various hand tools and meas gine repair work. Study of the construction a of internal combustion engines. Testing of en and maintenance of pistons, valves, cams and systems, cooling systems; proper lubrication diagnosing and repairing. Prerequisite: None	suring dev and operat ngine perf camshafts	vices neede tion of con ormance; s, fuel and	ed in en- mponents servicing d exhaust
PME 1102—Engine Electrical and Fuel Systems	5	12	9
A thorough study of the electrical and fuel Battery cranking mechanism, generator, ignit fuel pumps, carbureators, and fuel injectors. C of fuel systems, special tools, and testing e electrical systems. Prerequisite: None	systems tion, acces Characteris	of the au ssories and stics of fue	tomobile. d wiring; els, types
PME 1122—Chassis & Suspension Systems	3	9	6
Principles and functions of the components of tical job instruction in adjusting and repairin Prerequisite: None	of automo		
PME 1202—Auto Electrical/Electronics	3	6	5
A thorough study of the theory and operation trical units and systems. Maintenance and to and repair of all types of electrical/electronic transistor circuits, found on the modern auto: Prerequisite: PME 1102	n of variou cesting pro	us automo ocedures,	bile elec- diagnosis
PME 1203—Automotive Engine Tune-Up	4	9	7
This course is designed to provide depth in the various types of tune-up equipment. Emphy knowledge of the waveforms of the oscillosce Tune-Up Tester. Through proper use of tune is expected to demonstrate his ability to diagon systems, cranking motors and charging circui Prerequisite: PME 1102	hasis is p cope and c e-up equip nose malfu	placed on other unit pment, the	gaining ts on the e student
PME 1221—Front Suspension, Alignment and Power Steering	1	6	3
Theory of operation, correct disassembly and pension parts on various types of frames (car a understanding of the function and repair of stee dard), shock absorbers, springs, wheels and	and light i ering gear	truck). A cs (power a	thorough and stan-

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.

Prerequisite: AUT 1123

Course Title	Hours Class	Per Week Lab	Quarter Hours Credit
PME 1224—Advanced Automatic Transmissions	3	12	7
	0 1 11 1		

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 "troubleshooting" procedures and repair of various types of automatic transmissions. Prerequisite: AUT 1124

PME 1226—Automobile Servicing II264Emphasis is placed on "troubleshooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in depth experiences in diagnosis, testing, adjusting, repairing, and replacing component parts.Prerequisite: AUT 1125



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Course Title	Hours Per Wee	k Quarter Hours
Course Title	Class Lab	Credit

### BUSINESS

#### **BUS 91—Business Machines**

A general survey of the business and office machines. Students will receive an introduction to and training in techniques, processes, operation and application of the ten-key adding machines and calculators. If a grade of B is achieved credit may be granted for T-BUS 110, with recommendation of the instructor.

#### BUS 94—Bookkeeping I

A study of the basic bookkeeping cycle. Begins with the starting of a bookkeeping system, covers the basic elements, the bookkeeping equation, the journalizing of transactions, the ledger, worksheet, financial statements and the closing of the ledger.

#### **BUS 95—General Business**

A study to help students become more competent in making economic choices and using business services; to develop desirable economic attitudes: willingness to assure responsibilities; awareness of personal obligations to others and appreciation of the role of the individual in business and government; to sharpen basic business skills, to develop an understanding of business occupations and to provide a basis for further study in business.

#### BUS 97—Economics I

A study of the basic concepts, principles, terminology and philosophy of economics from both a social and political view point.

#### **BUS 98—Bookkeeping II**

A study of the bookkeeping cycle with special journals and subsidiary ledgers.

#### **BUS 99—Economics II**

A continuation of BUS 97 with emphasis on current issues.

## BUS 101—Introduction to Business

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. Prerequisite: None

#### BUS 102—Beginning Typewriting

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, copy placement, memos, postal cards, business letters, tabulation, and simple reports. The student will type at least 30 gross words a minute on straight copy material for five minutes with a maximum of five errors.

Prerequisite: None

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Course Title	Hours Class	Per Week Lab	Quarter Hours Credit
BUS 103—Intermediate Typewriting	2	3	3
Instruction emphasizes the development	of speed and	accuracy	with fur-

ther mastery of correct typewriting techniques. These skills and techniques are applied in styles of business letters, including letters on oddsize stationery and two-page letters; open, ruled and boxed tabulations; telegrams; interoffice memorandums; and other business forms. Upon completion of this course, the student will type at least 40 words a minute on straight copy material for five minutes with a maximum of five errors. Prerequisite: BUS 102

**BUS 104—Advanced Typewriting** 2 3 3 Emphasis on typing tables with special problems, prepare material for duplication, and type material relevant to a variety of office situations. Upon completion of this course the student will type at least 50 words a minute on straight copy material for five minutes with a maximum of five errors.

Prerequisite: BUS 103

#### **BUS 106—Beginning Shorthand**

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

Prerequisite: None

#### **BUS 107—Intermediate Shorthand**

Continued study of theory with greater emphasis on dictation and transcription. Upon completion of the course, the student should be able to take new matter dictation for three minutes at a minimum of 60 words a minute with 97 percent accuracy. Prerequisite: BUS 106

#### **BUS 108—Advanced Shorthand**

Theory and speed building. Emphasis on transcription at the typewriter and correct copy. Upon completion of the course, the student should be able to take dictation of new material for three minutes at a minimum of 70 words a minute with 97 percent accuracy. Prerequisite: BUS 107

#### **T-BUS 110—Office Machines**

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, rotary calculators, printing calculators, and electronic calculators. Prerequisite: None

### T-BUS 112—Filing

Provides training in the field of records storage and control. Covers fundamental rules of alphabetic indexing and fundamental principles of filing as applied to both cards and correspondence. Appropriate coverage is given to four basic correspondence filing systems-alphabetic, numeric, subject, and geographic. Materials consist of textbook and practice set for card filing and correspondence filing. Prerequisite: None

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	Hours Po	er Week	
Course Title	Class	Lab	Hours Credit
<b>T-BUS 115—Business Law</b> A general course designed to acquaint the s mentals and principles of business law, incl instruments, and agencies. Prerequisite: None			
<b>T-BUS 116—Business Law</b> Includes the study of laws pertaining to ba partnership-corporation, mortgages, and prope Prerequisite: <b>T-BUS 115</b>			<b>5</b> -bearing,
BUS 120—Principles of Accounting A study of the basic accounting concepts, with cycle for single proprietorship. Preparation sheets, balance sheets, and income statements cepts of internal control. Prerequisite: MAT 110 or 111, or equivalent	of journa	ls, ledge	rs, work
<b>T-BUS 118—Record Keeping</b> Principles, techniques and tools of accounting mechanics of accounting. Collecting, summari ing information about service and mercantile of cation of the principles learned. Prerequisite: None	zing, analy	zing, and	i report-
BUS 121—Principles of Accounting	5	2	6
A study of accounting principles as applied tion. An introduction to basic concepts of costion of financial statements. Prerequisite: BUS 120			
<b>T-BUS 123—Business Finance</b> Financing of business units, as individuals, partrusts. A study is made of short-term, long-ter Financing, federal, state, and local government the economy. Factors affecting supply of f policies. Prerequisite: None	rm, and co and the en	nsumer fi suing effe	inancing. ects upon
<b>T-BUS 134—Personal Development</b> Designed to help the student recognize the imp tual, social, and emotional dimensions of person on poise, grooming and methods of personal in Prerequisite: None	onality. E	mphasis	4 intellec- is placed
<b>T-BUS 183L—Terminology and Vocabulary</b> To develop an understanding of the terminolog ate to the course of study, as it is used in bus sional offices. Prerequisite: BUS 107	<b>3</b> gy and voc siness, tech	0 abulary a nical, and	<b>3</b> appropri- 1 profes-
T-BUS 183M—Terminology and Vocabulary	3	0	3
To develop an understanding of the terminolog ate to the course of study, as it is used in bus sional offices. Prerequisite: BUS 107	y and voca	abularly a nical, and	ppropri-

	Uouma	Dom	Week	Quantan
Course Title	Class		Week Lab	Quarter Hours Credit
<b>T-BUS 205—Technical Typewriting</b> Emphasis is placed on the development of The student learns the techniques needed in p ects that closely approximate the work appro These projects include review of letter forms the typing of reports, manuscripts and legal d Prerequisite: BUS 104	olanning priate t s, statis	and o the tical	in typ e field	oing proj- of study.
<b>T-BUS 206—Dictation and Transcription</b>	3		2	4
Develops the skill of taking dictation and of tr materials appropriate to the course of study, the theory and the dictation of familiar and u ing rates of speed. Minimum dictation rate quired for five minutes on new material with Prerequisite: T-BUS 108	which unfamili of 80 w	inclu ar m ords	des a aterial per n	review of at vary- ninute re-
<b>T-BUS 207—Dictation and Transcription</b>	3		2	4
Covering materials appropriate to the course of the accuracy, speed, and vocabulary that will e graphic requirements of business and profession tion rate of 90 words per minute required for terial with 98 percent accuracy. Prerequisite: T-BUS 206	nable he onal offi	er to ces.	meet f Minim	the steno- um dicta-
<b>T-BUS 208—Dictation and Transcription</b>	3		2	4
Principally a speed building course, covering a course of study, with emphasis on speed as dictation rate of 100 words per minute requir material with 98 percent accuracy. Prerequisite: T-BUS 207	well as	accu	iracy.	Minimum
<b>T-BUS 211—Office Machines</b>	2		2	3
Instructions in the operation of the bookkeepin duplicating equipment. Prerequisite: BUS 104	ng-accou	inting	g macł	nines, and
<b>T-BUS 212—Transcribing Machines</b>	3		0	3
Students will receive training in the operation ing machines. Prerequisite: BUS 104	n of dict	ating	g and t	transcrib-
<b>T-BUS 214—Secretarial Procedures</b>	3		2	4
Designed to acquaint the student with the res a secretary during the work day. These includ duties, handling the mail, telephone technique grams, office records, purchasing of supplie insurance claims. Prerequisites: T-BUS 205, T-BUS 206	e the fo es, trav	llowi el in	ng: re format	ceptionist tion, tele-
<b>T-BUS 219—Credit Procedures and Problems</b>	3		0	3
Principles and practices in the extension of c laws pertaining to credit extension and collect Prerequisite: None				ocedures;
BUS 226—Cost Accounting	5		2	6
The course is designed to introduce the stud applied to computer applications. Departments costs are surveyed to give the students a working terminology.	al accou	inting	g and	job order
Prerequisite: BUS 121				

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Course Title	Hours	Per Week	Hours
	Class	Lab	Credit
T-BUS 229—Taxes	3	2	4
Application of federal and state taxes to and partnership. A study of the basic taxes a Prerequisite: None	re made.	ais, propri	etorsnips,
T-BUS 232—Sales Development	3	0	3
The student will identify and define buying n making a sale. He will also identify the ch successful salesmen. Prerequisite: None			
BUS 235—Business Management	5	0	5
Principles of business management including of management, such as planning, staffing, nancing. Clarification of the decision-making function. Role of management in business-qua Prerequisite: None	controllin function	g, directing versus the	g, and fi- operating
BUS 239—Marketing	5	0	5
A general survey of the field of marketing, functions, policies, and institutions involved Prerequisite: None			
T-BUS 243—Advertising	3	2	4
The role of advertising in a free economy a mass communications. A study of advertising research; selection of media; means of testing Theory and practice of writing advertising c Prerequisite: None	appeals; g effectiv	product an eness of ad	nd market vertising.
T-BUS 245—Retailing	3	0	3
A study of the role of retailing in the econo present retail structure, functions performed tive operation and managerial problems resu and social trends. Prerequisite: None	l, princip	les govern	ing effec-
T-BUS 272—Principles of Supervision	3	0	3
Introduces the basic responsibilities and dut relationship to superiors, subordinates, and curing an effective work force and the role of supervision are stressed. Prerequisite: None	associate	es. Ēmphas	sis on se-
T-BUS 284M—Terminology and Vocabulary	3	0	3
Greater emphasis on an understanding of the appropriate to the course of study, as it is us professional offices.	e termino		ocabulary

Prerequisite: T-BUS 183M

### BUS 1103—Small Business Operations 3 0 3 An introduction to the business law, business forms and records, financial problems, ordering and inventorying, layouts of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None

	Hours	Per Week		
Course Title	Class	Lab	Hours Credit	
BUS 1105—Industrial Organizations Methods, tcehniques, and practices of modern r ganizing and controlling operations of a manu tion to the competitive system and the factors Prerequisite: None	facturing	concern.	Introduc-	
ECO 201—Principles of Economics Survey of basic economic aspects of the nation income determination, pricing mechanisms, la and banking. Prerequisite: None				
ECO 202—Principles of Economics A continuation of Economics 201 with empha trade and finance, and economic problems. Prerequisite: ECO 201	<b>3</b> sis on pr	0 vicing, inte	3 rnational	
ECO 203—Principles of Economics A continuation of Economics 202 with emphas of agriculture, labor, and welfare, with an intr Prerequisite: ECO 202				
EDP 104—Introduction to Data Processing System	ns 5	2	6	
<ul> <li>Punched card concepts; unit-record machines' introduction to electronic digital computers output devices; binary and hexadecimal number tion to flow-charting.</li> <li>Prerequisite to all other programmings with dents with computer programming (or other remission of the instructor.</li> </ul>	with the r concept the exce	ir connecte s; and an <b>ption</b> of <b>t</b> !	ed input- introduc- hose stu-	
EDP 105—Assembly Language I	3	4	5	
Computer data formats utilizing DC's and I dressing of core storage; the 5 basic instruct arithmetic; binary arithmetic with rounding; o data translation instructions; branch instruc- tions (macros); writing of print programs ut the printer. Prerequisites are either EDP 104 or previous p the instructor's permission.	ion form lata mov tions; in tilizing t	ats; intege ement inst put-output he card re	er binary ructions; instruc- ader and	
EDP 107—Fortran	2	4	4	
Analysis of equations and translation to Fortran statements; simple REAL and INTEGER formats; unconditional branches to statement numbers; logical "IF"—statements; explanation of "free" Input-Output statements available only in WATFIV; explicit and implicit declarations; DO-loops; arrays and subscripting; advanced input-output utilizing the "FORMAT" —statement. This course utilizes the WATFIV compiler.				
Prerequisites are EDP 104 and T-MAT 106 E Mathematics I. Practical programming expen- the instructor in lieu of EDP 104.				
EDP 201—Assembly Language II	3	4	5	
Packed-decimal arithmetic; use of ED and E output numeric data more readable; loop pr BCTR, BXH, and BXLE); indexing; logical	ogrammi	ng (utilizi	ing BCT,	

Hours Per Week Quarter Hours Class Lab Credit

EXCLUSIVE-OR instructions); programming appropriate problems with extensive use of core dumps.

Prerequisite is either EDP 105 or appropriate programming experience with IBM's Assembly Language and permission of the instructor.

#### EDP 202—Cobol I

Course Title

This course teaches the basic elements necessary to code programs using sequential data sets (only). The Data Division is treated rigorously. By the end of the course the students write a print-problem involving several control breaks.

Prerequisite is EDP 104 or previous programming experience and the instructor's permission.

#### **T-EDP 204—Introduction to Data Processing—Business**

An overview of the field of electronic data processing. Major topics include historical development, unit record, number systems, basic input-output operations, flow-charting, and an introduction to computer programming. Prerequisite: None

#### EDP 210—Cobol II

Table handling;

Reading of sequential and indexed-sequential data sets (on IBM disk pack); File maintenance problem; and

SORT-verb.

NOTE: This course emphasizes program writing and debugging by the students.

Prerequisite is EDP 202 (Cobol I) or appropriate programming experience in Cobol and the instructor's permission.

#### EDP 211—Cobol III

Extensive programming practice in Cobol designed to develop in the prospective programmer facility in coding and debugging Cobol-programs. Prerequisite is EDP 202 (COBOL I) and EDP 210 (COBOL II) or appro-

priate programming experience in COBOL and the instructor's permission.

### EDP 215—Operating Systems

General introduction to Job Control Language (JCL); thorough coverage of the JOB, EXEC, and DD cards in JCL; advanced options available through use of LINKAGE EDITOR; Direct Access storage devices and organization methods; introduction to utilization of the UTILITIES.

Prerequisite is either EDP 201 (Assembly Language II) or EDP 210 (COBOL II).

This course must be completed satisfactorily before the student may undertake the Field Project (EDP 223).

#### EDP 220—Introduction to Systems Analysis

Who a systems analyst is and what he does; Tools of systems analysis; Standards; File design; Program specification and testing; Feasibility studies; System implementation;

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Course Title	Hours Class	Per Week Lab	Quarter Hours Credit
Controls and security; Application packages; and Management information systems (MIS). Prerequisites are one year of accounting and any business-oriented computer language; or lent) and the instructor's permission.			
EDP 223—Field Project Students are assigned practical-level problem to program and de-bug in a professional many Properly supervised commercial programming the instructor's permission. Normally studend programs, but special arrangements will be to dents desiring to utilize other languages (success Fortran IV Language). Prerequisites are Operating Systems EDP 215, and the courses that taught the computer language NOTE: For those with special needs, special sidered. Such students should contact their ad month before they intend to take EDP 223.	ner. work ca it will u made wh h as Ass ce the stu arrange	in be used l se COBOL en possible sembly Lan ident desire ements may	here with in their for stu- guage or es to use. y be con-
EDP 224—Report Program Generator (RPG) File Description Specifications sheet; Input Specifications sheet; Output Specifications sheet; Introduction to Calculation Specifications sheet Use of control breaks; Thorough coverage of the Calculation Spec she Matching with 2 input files (sequential); Table look-up utilizing the File Extension Sp Appropriate programming assignments. Prerequisite is EDP 104 or previous programming of the instructor.	eet; becificatio		

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Course Title	Hours Class	Per Week Lab	Quarter Hours Credit
CIVIL—SURVEYING			
<b>T-CIV 101—Surveying</b> Theory and practice of plane surveying includ profile leveling, cross sections, earthwork co and transit-tape surveys. Prerequisite: None	<b>2</b> ing tap omputat	<b>6</b> ing, differe ions, trans	4 ential and it, stadia
T-CIV 102—Surveying Triangulation of ordinary precision; use of areas of land; land surveying; topographic sur Prerequisite: T-CIV 101 Corequisites: T-MAT 102, T-DFT 102	2 plane t rveys ar	6 able; calcund mapping	4 Ilation of
T-CIV 103—Surveying	2	6	4
Route surveys by ground and aerial methods; parabolic and spiral curves; geometric design veys and plants, including mass diagrams. Prerequisite: T-CIV 102 Corequisite: T-MAT 103	simple of high	, compound ways; higł	, reverse, way sur-
T-CIV 109—Boundary Law	3	0	3
The study of the North Carolina state statute surveying, laws pertaining to riparian right preparation of abstracts. Corequisite: T-CIV 103 or by permission of i	ts, adv	erse posses	
T-CIV 114—Statics	5	0	5
Forces, resultants, and types of force system coplanar forces by analytical and graphic meth in simple structures; equilibrium of forces in s tion; center of gravity, centroids, and moment Prerequisite: T-MAT 102	is; mon hods; st pace, st	tresses and atic and kin	ibrium of reactions
T-CIV 201—Properties of Engineering Materials	2	3	3
Study and testing of the properties of ferrous ber, stone, clay products, bituminous cementing measurements; behavior of materials under strength; control of the properties of the mate Prerequisites: T-PHY 101, and T-CIV 216	and nor g mater load;	nferrous me rials; load a qualities of	etals, tim- and strain ther than
T-CIV 202—Properties of Soils	2	3	3
Study of soil types and their physical properti tests of soils; techniques of subsurface inv theories; bearing capacity; stability of slop water; methods of compaction and consolidati Prerequisite: T-CIV 216	estigati es; hyc	ons; earth	pressure
T-CIV 211—Topographic Surveying	2	6	4
The practice of methods of making topographi instruments to include the plane table. The us ping purposes. The production of photo-maps, control in aerial surveys. Applied field problem Prerequisite: T-CIV 103	se of pl and th	hotography e methods	for map-
T-CIV 212—Route Surveying	2	6	4
Advanced study in the laying out of railroads	highw	avs, and ca	inals with

Advanced study in the laying out of railroads, highways, and canals with a concentration in grade and slope staking, spiral curves, superelevation. Applied field problems will be laid out. Prerequisite: T-CIV 211

Course Title	Hours	Per Week	Quarter Hours
	Class	Lab	Credit
T-CIV 213—Advanced Land Surveying Theories and practices of land surveying, sub- ing deeds, tying surveys to the N. C. Co-ord and astronomic observations. Field demonstrat with many modern types of survey instrument Prerequisite: T-CIV 212	linate Sy cions and	ystem, triai	ngulation
T-CIV 214—Mapping and Sub-division Planning	2	6	4
Mapping principles and their applications in p hydrographic, and photographic maps and their Field trips will be made to various sub-division planning offices. Prerequisite: T-DFT 102	use in si	ab-division	planning.
T-CIV 216—Strength of Materials	3	2	4
Fundamental stress and strain relationship; moments; stresses and deflections in beams; i determinate beams; columns; combined stresse Prerequisites: T-CIV 114, T-MAT 103	ntroduct		
T-CIV 217—Construction Methods & Equipment	3	2	4
Excavating methods and equipment used in struction; pile driving; construction technique reinforced concrete buildings, bridges, lift-sl plates, erection methods and equipment of stru- bridges; carpentry in house and heavy timber safety. Field inspection trips. Prerequisites: T-DFT 102 or by permission of	ies and abs, thi ructural r constr	equipment n-shells an steel build uction; con	used in d folded ings and
T-CIV 223-Codes, Contracts, & Specifications	3	0	2
Basic principles and methods most significan appreciation of the legal considerations in c the National Building Code and local buildi outlining specification.	onstruct ng code	ion work;	study of
Corequisite: T-CIV 117 or by permission of ins		0	4
T-CIV 227—Construction of Roads and Pavement		2	4
Construction practices for various types of r properties, grading, subgrading, base course compaction, and formwork. Design, construct Portland-cement concrete and flexible bitum spection trips. Prerequisites: T-CIV 217, T-CIV 212, T-CIV 2	es, drain etion, an inous pa	lage, emba nd testing	nkments, of rigid
T-CIV 228—Drainage Structures	2	3	3
The application of basic hydraulics principles the collection, distribution and disposal of wa work will involve solving realistic problems. Prerequisites: T-DFT 102, T-CIV 211 or by pe	ter and	wastes. La	lboratory
T-CIV 229-Subdivision Drainage	3	0	3
The principles of drainage and hydrology as a wanted surface and subsurface water. Particul problems of draining urban residential areas. Prerequisite: T-CIV 228 or by permission of Corequisite: T-CIV 214	lar atten	tion is give	
CIV 1101—Construction Surveying	2	3	3
Basic instrument use; construction site surveyi be studied. Drafting room application of surve ration of site plans and cost estimating. Prerequisite: MAT 1104 Co-requisite: DFT 1147			

## **DENTAL HYGIENE**

Course Title		Per Week	Hours	
	Class	Lab	Credit	
DEN 101-Dental Anatomy I	2	6*	4	
Basic knowledge of the anatomy, nomenclature, arrangement and minute structure of the human dentition and all supporting structures including a detailed study of deciduous and permanent teeth. Laboratory experiences include drawing, graphic representations and carving selected teeth to correct dimensions. The use of plaster models articulated for orientation will be included. Prerequisite: None				
DEN 102—Dental Anatomy II	2	0	2	
Continuation of DEN 101 with emphasis on organs, tissues, muscles of mastication and speech, occlusion, and application to dental hygiene practice. Prerequisite: None				
DEN 111 Introduction to Doutel Haging	9	0	9	

DEN 111—Introduction to Dental Hygiene 3 0 3 A composite course designed to acquaint the first year students with the content of the dental hygiene curriculum, relation of courses of study to the practice of dental hygiene, the professional responsibilities of the hygienist and her relation to the dental health team, including personal factors of health and appearance. (Also included will be) An introduction to methods of study and use of library facilities. Prerequisite: None

DEN 112—Preclinical Dental Hygiene 1 9\* 4 Principles and procedures of oral prophylaxis with repetitive practice on the dental manikin. Proper instrumentation, fulcrum position, care of instruments including storage, sharpening, and sterilization. Proficiency in charting existing oral conditions, taking medical histories, and knowledge of medical and dental terminology will also be emphasized. Prerequisite: DEN 111

DEN 113—Introduction to Clinical Dental Hygiene 1 12\* 6 Further development of skills in manipulating instruments and materials used in oral prophylaxis and application of clinic procedures at the chair. Practical experience will include proper patient and operator positioning, patient education, record keeping, examination and charting. Prerequisite: DEN 112

**DEN 123—Periodontia and Preventive Dentistry I** 2 0 2 Study of the periodontium and periodontal pathology, the "causes and effects" of dental disease, and information in developments in the field of science which contribute to preventive dentistry. Emphasis will be placed on the role of the dental hygienist in the treatment and prevention of periodontal disease. Prerequisite: DEN 102

DEN 133—Dental Radiology 2 2 3 Study of the principles related to the exposing, processing, identification and mounting of x-rays, using both the long and short cone techniques. This course further includes emphasis on radiation safety standards and laboratory experiences will include practice in both intra-oral and extraoral techniques.

Prerequisites: DEN 101, DEN 102

		Hours
Class	Lab	Credit
		3 al cavity,
nciples a ractical	nd proce knowledg	dures re- e in the
		<b>5</b> ohasis on
2 perience i	12* in existin	<b>6</b> g dental
alysis of is on a po ilizing of	eriodontia ral physi	l control otherapy
forces, in and in de	communi ental spec	ty health eialty of-
lental hea	alth in an	reas out-
eir manip	oulation a	ind care.
	Class 2 of the factor oral cav 0 se conter e dental 2 is on pro- inciples a ractical agement 1 ocedures procedures procedures procedures procedures 2 erience $\frac{2}{2}$ berience $\frac{2}{2}$ oduction forces, in and in dental ble for b 2 oduction forces, in and in dental ble for b 2 oduction forces, in and in dental ble for b 2 y used in primer manip	22of the face and oral cavity.0 $3^*$ $0$ $3^*$ rse content of the e dental hygenists2 $12^*$ is on progress in inciples and proceed ractical knowledg agement of patien1 $12^*$ ocedures with emp procedures.2 $12^*$ berience in existin2 $2$ alysis of the period is on a periodontia illizing oral physic control program2 $3$ oduction to the rol forces, in communitiand in dental special ible for broader exists2 $3$ d analysis of the lental health in an sist of actual expension

Course Title	Hours	Per Week	Quarter Hours
	Class	Lab	Credit
DEN 235—Dental Health Education	1	2	2
Designed to educate the student to the importance of effective communica- tion as a dental health educator. Includes methods and materials used in teaching dental health and class projects are done on organizing dental health programs using self-designed materials for all age levels. Group activity is experienced on campus and in the public school classroom. Prerequisite: By permission of instructor			
DEN 254—General and Oral Pathology	2	0	2
Study of the anatomic and physiologic deviations from the normal that constitute disease or characterize a particular disease with special em- phasis on the relationship of the hygienist to oral pathologic conditions. Prerequisites: DEN 123, BIO 122			
DEN 255—Introduction to Pharmacology	2	0	2
Study of basic information related to the field of pharmacology and par- ticularly those agents prescribed by dentists and commonly used by pa- tients whose systemic or oral conditions, including drug abuse, require special procedures in the dental office. Study of properties, dosage, thera- peutic effects, methods of administration and indications and contraindica-			

tions of drugs used as adjuncts in dental procedures. Prerequisites: DEN 254, BIO 121, BIO 122



	Hours	Per	Week	Quarter
Course Title	Class	Т	lab	Hours Credit
DENTAL ASSISTANT	Olubb			orcuit
DEN 1001—Introduction to Dental Assisting An introduction to the history of dental assist dental assistant in practice and in relation to o health team, dental terminology, and the person for safe and effective practice. Prerequisite: None	other me	embe	rs of tl	he dental
DEN 1002—Dental Materials Identification of dental materials, characteris quality, and principles and procedures related of various dental materials. Prerequisite: None				
<b>DEN 1003—Dental Anatomy</b> Basic information of oral and dental anatomy and the practice of dental assisting. Prerequisite: None	1 as relat	ced to	2 o denta	2 I science
DEN 1004—Preclinical Sciences II Fundamental information from oral patholog and common emergencies as related to the role signed in four units to permit flexibility in se Prerequisite: DEN 1003	of the	denta		
DEN 1005—Dental Accounting Fundamentals of accounting as applied to dentice in application of principles to various formoffice. Prerequisite: None				
DEN 1006—Clinical Procedures I	3		6	5
Principles and procedures related to dental is and chairside techniques of dentail assisting with dentistry. Prerequisite: DEN 1002	instrume		and eq	uipment,
DEN 1007—Clinical Procedures II	4		6	6
Role of the dental assistant in various dental s tics, periodontics, orthodontics, prosthodontics Prerequisite: DEN 1006	specialti		ich as	endodon-
DEN 1008-Dental Office Management	4		3	5
Principles and procedures related to manage including maintenance of inventories, ordering financial records, making appointments and es relations. Prerequisite: DEN 1005	of supp	lies,	patient	al office, records,
DEN 1009—Dental Office Practice I	0		12	4
Introduction to practice in the dental office of on the role of the dental assistant in the oper- procedures. Prerequisite: DEN 1006			ic; em]	

Prerequisite: DEN 1006

Course Title	Hours Per Class	· Week Lab	Quarter Hours Credit
<b>DEN 1010—Dental Office Practice II</b> Practice in the dental office or dental clinic; encompass experience in office management, the operatory. Emphasis on chairside assistin in a variety of clinical procedures. Prerequisite: DEN 1009	the dental	laborat	ory, and
DEN 1011—Dental Assistant Seminar Study of personal responsibilities as a membe including employee-employer relations, oppor sonal and professional development. Prerequisites: DEN 1007, DEN 1008, DEN 101	tunities for		
<b>DEN 1012—Dental Roentgenology</b> Study of principles related to exposing, proce x-ray. Radiation hazards and safety measur of patient and self are stressed. Prerequisite: None			
<b>DEN 1013—Oral Health Education</b> Designed to present information on deposits a periodontal disease as related to prevention an			

Designed to present information on deposits and stains, dental caries and periodontal disease as related to prevention and control with emphasis on development of self confidence in interpreting dental health information and in demonstrating techniques to individuals and groups. Prerequisite: None

Course Title	Hours Per	Week	Quarter Hours
	Class	Lab	Credit
DRAFTING			

#### **T-DFT 101—Technical Drafting**

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced. Prerequisite: None

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#### **T-DFT 102—Technical Drafting**

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings," approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects. Prerequisite: T-DFT 101

- DFT 1101—Schematics and Diagrams 3 2 4. Interpretation and reading of schematics and diagrams. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None
- DFT 1104—Blueprint Reading: Mechanical 0 3 1 Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes. Prerequisite: None
- DFT 1109—Electrical Blueprints and Layouts 3 0 1 Provides a basic working knowledge of how to read and understand electrical plans and circuits. How to draw and make drawings of electrical circuits. Use of electrical symbols in blueprints and wiring diagrams. Planning and estimating electrical requirements from plans. Prerequisites: ELC 1112, ELC 1127
- **DFT 1110—Blueprint Reading: Building Trades** 0 3 1 Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None

### DFT 1111—Blueprint Reading & Sketching 0 3 1 Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches and cavity wall construction. Development of proficiency in making three view and pictorial sketches. Prerequisite: DFT 1110

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Course Title	Hours I Class	Per Week Lab	Quarter Hours Credit
DFT 1117-Blueprint Reading: Welding	0	3	1
A thorough study of trade drawings in which dicated. Interpretation, use and application of tions, and specifications. Prerequisite: DFT 1104			

DFT 1118—Pattern Development and Sketching 0

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.

Prerequisite: None

#### DFT 1140—Architectural Drafting I

A course designed to provide a fundamental knowledge of the principles of architectural drafting. The basic skills and techniques of drafting expression, sketching, architectural lettering, and use of instruments and equipment are stressed. Geometrical construction, orthographic drawing, paraline drawing and projection problems are studied. The principles of isometric, oblique and perspective drawings are introduced. Graphic symbols and conventions on a professional level. The study of sketching and to interpret construction drawings and prints. Various methods of reproduction will be introduced. Prerequisite: None

#### DFT 1141—Architectural Drafting II

A continuation of the fundamental knowledge of the principles of architectural drafting. Projection problems dealing with descriptive geomery in architecture are studied. Drafting expression with the basic control of line quality and technique is stressed. Emphasis is placed on the student to express and produce numerous construction details using appropriate symboys and conventions on a professional level. The study of sketching and architectural lettering is continued.

Prerequisites: DFT 1140, DFT 1144

#### DFT 1142—Architectural Drafting III

The study of typical architectural details and techniques relative to the preparation of detailed working drawings. Using preliminary sketches, the student as an individual or in group participation will proceed and complete a full set of working drawings, on a professional level, of a small light framed building. Use of appropriate drafting expression and techniques will be stressed.

Prerequisites: DFT 1141, DFT 1143

### DFT 1143—Building Mechanical Equipment

A very general study of the heating, air conditioning, electrical and plumbing equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures as related to mechanical equipment will be reviewed. Reading and interpretation of mechanical working drawings will be required by the student to familiarize him with various graphic techniques.

Prerequisites: DFT 1140, DFT 1144

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Course Title		Hours Per Week	
Course Intre	Class	Lab	Hours Credit
DFT 1144—Building Materials & Methods	3	2	4

General study of basic materials and methods used in the construction of architectural structures will be studied. Field trips to construction sites, fabrication shops and material producers coupled with the study of material specifications and techniques of construction. Prerequisite: None

#### DFT 1145—Codes, Contracts, and Specifications 3 2 4

A study of building codes and their effect in relation to specifications and drawings. The purpose and writing of specifications will be studed along with their legal and practical application to working drawings. Contract documents will be analyzed and studied for the purpose of owner-architectcontractor responsibilities, duties, and mutual protection. Prerequisites: DFT 1141, DFT 1143

#### DFT 1146—Construction Estimating and **Field Inspection**

Interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; approximate and detailed estimates of cost. The student will study materials take-off, labor take-off, sub-contractor's estimates, overhead costs, bid and contract procedures. Detailed inspection at the construction by comparing finished work to the specifications.

Prerequisite: DFT 1145

### DFT 1147—Architectural Drafting IV

The application of drafting techniques in land surveys, topographic surveys, and work involving roads, buildings and elevations as related to architectural working drawings. The study and drawing of structural plans, details, and shop drawings of the various structural components of buildings to include steel, reinforced concrete and timber structures. Appropriate symbols, conventions, dimensioning practices and notes as used by the topographic and structural draftsman will be included. Prerequisites: DFT 1142 and MAT 1104

Co-Requisite: CIV 1101

### **DFT** 1148—Office Practice Seminar

A study of the professional relationship of the architectural firm in relation to clients, contractors, suppliers, consultants and other architects. Ethics of the profession as applicable to the draftsman's role in the architectural firm will be stressed.

Prerequisite: None

#### DFT 1180—Trade Drafting

This course is designed as an introductory course in drafting for students needing a knowledge of drawing principles and practices for reading and describing objects in the graphic language. The student is expected to gain basic skills in drawing with instruments, lettering, geometrical constructions, freehand sketching, and describing objects orthographically with principal views. Freehand sketching and orthographic reading are to be emphasized.

Prerequisite: None

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Hours Per Week Quarter Hours Credit

Class Lab

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## ELECTRICAL INSTALLATION AND MAINTENANCE

### ELC 1101—Basic Electricity

A study of basic electricity and the electrical systems, single phase and three phase power, their voltages and uses. Types of electrical circuits and their control devices. Electrical materials and tools. The National Electrical Code requirements as applied to branch circuits and their overcurrent protective devices. Practical application of basic electrical circuits, troubleshooting and repair of circuits. Prerequisite: PHY 1105

ELC 1112—Electrical Theory

A study of the Electron Theory and Magnetism. The relationship between voltage, current and resistance. Electrical terms and symbols. Basic electrical circuits—series, parallel and combination. Types of electrical measuring devices and how to apply them in electrical circuits. Electrical systems for lighting and power. (wye & delta) Prerequisite: None

#### ELC 1113—Electrical Motors & Controls (Elec. Inst. & Maint.) 3 9 6

Provides instruction and application in the installation of electrical motors and control devices, manual, automatic, remote control stations, relays, dual motor operations. Maintenance and troubleshooting, repair of controlers and control devices. Types of electrical motors, single phase, and three phase. Maintenance and repair of electrical motors. Prerequisites: ELC 1112, ELC 1126, DFT 1109, and ELC 1124

#### ELC 1114—Electric Motors & Controls (Air Cond. & Refrig.) 0 6 3

Provides instruction and application in the installation of electrical motors and control devices, manual, automatic, remote control stations, relays, dual motor operations. Maintenance and troubleshooting, repair of controlers and control devices. Types of electrical motors, single phase, and three phase. Maintenance and repair of electrical motors. Prerequisite: ELC 1101

### ELC 1124A—Residential Wiring

Provides instruction and application in the installation of electrical requirements in residential dwellings. Regulations governing the wiring as listed in the National Electrical Code and in the specifications. Load calculation for family type dwellings. Installation of service equipment and branch circuits in actual building mock-ups.

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Prerequisites: ELC 1112, MAT 1115, ELC 1127

### ELC 1124B—Residential Installation

Provides instruction and application in the installation of electrical requirements in residential dwellings. Regulations governing the wiring as listed in the National Electrical Code and in the specifications. Load calculation for family type dwellings. Installation of service equipment and branch circuits in actual building mock-ups.

Prerequisites: ELC 1112, MAT 1115, ELC 1126, ELC 1127, DFT 1109

## **Course Title**

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Course Title	Hours P Class	er Week Lab	Quarter Hours Credit
ELC 1125A—Commercial Installations	3	3	4
Provides instructions and application in the	installation	of electric	al serv-

ments for electrical service as set forth by the National Electrical Code. Load calculations. Actual wiring of commercial type installation in building.

ice equipment and branch circuits in commercial type buildings. Require-

Prerequisites: ELC 1112, MAT 1115, ELC 1126, ELC 1127, DFT 1109

#### ELC 1126—National Electrical Code

Introduction to the National Electrical Code, 1971 Edition. The purpose and interpretations of the Articles of the Code.

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Prerequisites: ELC 1112, MAT 1115, ELC 1127

#### ELC 1127—Electrical Materials and Tools

Provides instruction in the knowledge and use of electrical hardware and devices. Their use and application in the electrical installations. Types of electrical conductors and cable. Steel electrical raceways. Overcurrent protection devices. General knowledge of electrical tools, care and maintenance of tools and equipment.

Prerequisite: None

#### ELC 1128B—Commercial Installations

Provides instructions and application in the installation of electrical service equipment and branch circuits in commercial type buildings. Requirements for electrical service as set forth by the National Electrical Code. Load calculations. Actual wiring of commercial type installation in building.

Prerequisits: ELC 1112, MAT 1115, ELC 1126, ELC 1127, DFT 1109, ELC 1124, ELC 1125A

#### ELC 1129—Industrial Installation

Provides instructions and application in installation of electrical service in industrial type buildings. Installation of three phase power circuits. National Electrical Code requirements, and solid state controls circuits.

Prerequisites: ELC 1112, ELC 1113, MAT 1115, ELC 1126, ELC 1127, ELC 1124, ELC 1125, and DFT 1109

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Quarter

Hours Per Week

Hours Credit Class Lab ENGLISH 3 0 0 ENG 92—Developmental Reading A laboratory approach to reading development. Emphasis is placed on vocabulary building, comprehension and rate. The instructor will determine areas of deficiency and design a reading development program to meet the individual needs. Prerequisite: None ENG 93—Reading and Vocabulary I 5 5 A practical approach to reading and vocabulary development. Included are dictionary skills, word attacks, pronunciation skills, the techniques of interpretative and critical reading, and the elements of sentence construction. Prerequisite: None ENG 94—Reading and Vocabulary II 5 5 A continued practical approach to reading and vocabulary development. Time is also devoted to grammar, sentence structure, punctuation, and spelling. Prerequisite: None 5 0 ENG 95—Composition and Grammar 5 Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situation in industry and social life. Emphasis is placed on grammar, sentence structure, punctuation and spelling. Proper use of the library for reference work will be stressed. Prerequisite: None

5 0 0 A basic course in English grammar, and composition. Recommended for students who evidence a need for an improved mastery of the subject. Students receiving a grade of C or better may receive credit (3 hours credit) upon the recommendation of the instructor for English 101. Prerequisite: None

3 3 0 Organizing and developing full length essays with a brief review of elements of grammar. A study of the types of short story and its elements. Prerequisite: English 100 or equivalent

## 3 Organizing and developing a research paper, with a brief review of elements of grammar as needed. A study of the drama and the novel and their

elements. Prerequisite: English 101

## ENG 103—English Composition

A study of poetry as a genre and of nonfiction and critical writing. Prerequisite: English 102

### T-ENG 101—Grammar

Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 95 or equivalent.

**Course Title** 

## ENG 100—Developmental English

## ENG 101—English Composition

## ENG 102—English Composition

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	Hours	Per Week	Quarter
Course Title	Class	Lab	Hours Credit
<b>T-ENG 102—Composition</b> Designed to aid the student in the improvement ten composition. Emphasis is placed on application correct diction and grammar to the organization Prerequisite: T-ENG 101 or equivalent	ying th	le basic con	ncepts of
ENG 1101—Reading Improvement Designed to improve the student's efficiency a reading. Time is also devoted to developing e vocabulary, and the elements of simple parage Prerequisite: None	ffective	study hab	
ENG 1102—Business Writing Fundamentals of correct language usage are as and the simple business or technical report. Prerequisite: ENG 1101	3 pplied t	0 o the busin	<b>3</b> ess letter
ENG 1103—Communication Skills Designed to develop further effective comm language usage and orderly thought processes b Prerequisite: ENG 1102 or equivalent			
ENG 201—English Literature The study of English literature from Beowulf Prerequisite: ENG 103	5 to the	0 Romantic P	5 Period.
ENG 202—English Literature A continuation of ENG 201, including a study the Romantic Period through the Modern Perio Prerequisite: ENG 201		0 glish literat	5 ure from
ENG 203—American Literature A survey of representative American writers in Dickinson. Prerequisite: ENG 103	5 from th	<b>0</b> e Colonial 1	5 Period to
ENG 204—American Literature A continuation of English 203. A survey of n Dickinson until the present. Prerequisite: ENG 203	5 represer	0 ntative writ	5 ers from
ENG 205—World Literature A survey of the tempers of western thought 1600, stressing the relationship between literat Prerequisites: ENG 101, 102, 103			
ENG 206—World Literature A survey of the tempers of western thought stressing the relationship between literature a Prerequisites: ENG 101, 102, 103			5 present,
ENG 210—Creative Writing A course geared to the needs and interests o form, style, and the techniques of the discip adapted to the abilities of individual students. Prorequisites: ENG 101 102 103 and/or permi	line, wi	th special	exercises

Prerequisites: ENG 101, 102, 103 and/or permission of instructor

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Course Title	Hours 1 Class	Per Week Lab	Quarter Hours Credit	
T-ENG 204—Oral Communication	3	0	3	
A study of the basic concepts and principles of oral communication to en- able the student to speak more effectively. Emphasis is placed on logical				

organization and effective presentation of ideas. Attention is given to a variety of speaking situations in which the student may find himself when he enters the business world. Prerequisite: T-ENG 102 or equivalent

### **T-ENG 206—Business Communication**

The fundamentals of English are used as a background for the organization and preparation of modern business (or technical) reports and letters. Various methods of report preparation are considered, as well as techniques of presenting material, i.e. graphs, tables, pictures, etc. The major types of business letters are discussed with emphasis placed on getting across the purpose of each type of letter. Prerequisite: T-ENG 102





Course Title	Hours Pe	r Week	Quarter Hours
Course Inte	Class	Lab	Credit
FOREIGN LANGUAGE			
<b>FRE 101—Elementary French</b> A study of the basic elements of French. Func- in pronunciation, reading, and special emph the language. This sequence is designed for s units of high school French. Prerequisite: None	asis on or	al expr	ession in
FRE 102—Elementary French A continuation of FRE 101. Prerequisite: FRE 101 or equivalent	3	1	3
FRE 103—Elementary French A continuation of FRE 102. Prerequisite: FRE 102 or equivalent	3	1	3
FRE 201—Intermediate French An intermediate sequence designed to provide a grammar and to further develop the skills of 1 and writing French. Prerequisite: FRE 103 or two high school units	listening, s		
FRE 202—Intermediate French A continuation of FRE 201. Prerequisite: FRE 201	3	1	3
FRE 203—Intermediate French A continuation of FRE 202. Prerequisite: FRE 202	3	1	3
FRE 211—Advanced French A sequence of courses conducted in the languag history of French, principally as reflected i on advanced composition and reading of selection Prerequisite: FRE 203	n the liter	ature. I	Emphasis
FRE 212—Advanced French A continuation of FRE 211. Prerequisite: FRE 211	3	1	3
FRE 213—Advanced French A continuation of FRE 212. Prerequisite: FRE 212	3	1	3
SPA 101—Elementary Spanish A study of the basic elements of Spanish. H drill in pronunciation, reading, and special en in the language. This sequence of courses is less than two units of high school Spanish. Prerequisite: None	nphasis on	oral ex	pression
SPA 102—Elementary Spanish A continuation of SPA 101. Prerequisite: SPA 101 or equivalent	3	1	3
SPA 103—Elementary Spanish A continuation of SPA 102. Prerequisite: SPA 102 or equivalent	3	1	3

Course Title	Hours	Per Week	Quarter Hours
	Class	Lab	Credit
SPA 201—Intermediate Spanish	3	1	3
An intermediate Spanish sequence designed to view of basic grammar and to develop the a hension material dealing with Spanish Civiliz Prerequisite: SPA 103 or two high school unit	bility to ation.	read with	
SPA 202—Intermediate Spanish A continuation of SPA 201. Prerequisite: SPA 201	3	1	3
SPA 203—Intermediate Spanish A continuation of SPA 202. Prerequisite: SPA 202	3	1	3
SPA 211—Conversational Spanish	3	1	3
Emphasis on the systematic usage of the lang through listening and speaking. Prerequisite: SPA 203 or equivalent	uage fro	m an oral	approach
SPA 212—Spanish and Spanish-American Civilization	3	1	3
Geographical, historical, and cultural aspec American civilization. Prerequisite: SPA 203 or equivalent	-	pain and	-
SPA 213—Advanced Conversation and Composition Stress on oral and written expression of the l Prerequisite: SPA 211 or equivalent		1	3

team.

	Hours I	Per Week	
Course Title	Class	Lab	Hours Credit
HEALTH AND PHYSICAL EDUCATION			
HEA 101—Personal and Community Health The development of all aspects of personal a underlying science to clarify and support healt			5 alth with
HEA 102—First Aid and Safety A basic course in health education designed to administering first aid. Emphasis is placed practical application.			
PED 250—Introduction to Physical Education	3	0	3
This course is designed to give the physical an introduction to Physical Education, and r historical background, fundamental concepts ing, qualifications, and professional opportunit	related an s, progra	reas, inclu m conter	idnig the
PHYSICAL EDUCATION: The following are "set	rvice" cou	urses in v	which the
history, fundamental skills, rules of play, and presented.	recreatio	nal aspect	ts will be
PED 101—Physical Conditioning I (required)	2	0	1
PED 102—Softball	2	0	1
PED 103—Soccer	2	0	1
PED 104—Social and Square Dance	2	0	1
PED 105—Volleyball	2	0	1
PED 106—Touch Football	2	0	1
PED 107—Beginning Basketball	2	0	1
PED 108—Archery	2	0	1
PED 109—Tennis	2	0	1
PED 110—Wrestling	2	0	1
PED 111—Circuit Training and Advanced Conditioning II Prerequisite: PED 101	· 2	0	1
PED 113—Bowling (\$10.00 fee charged)	2	0	1
PED 115—Golf (fee charged)	2	0	1
PED 116—Introduction to Tumbling and Gymnasti	cs 2	0	1
PED 208—Individual and Dual Activities (Badminton and Deck Tennis)	2	0	1
PED 112—Advanced Basketball I	2	0	1
Designed for the more advanced male athlete ticipant on the intercollegiate basketball to			

Course Title	Hours Pe	r Week	Quarter	
Course Title	Class	Lab	Hours Credit	
PED 114—Cheerleading I	2	0	1	
Approaches to the techniques of cheerleading which are based upon crowd psychology, cheerleading conduct on the field of play, and the cheerleading squad as a whole. Directing cheers, basic techniques in "motion," breath- ing, and tumbling. All prospective cheerleaders must be registered for their first year on the squad. Open to men and women.				
PED 121—Advanced Baseball I	2	0	1	
Designed for the more advanced male athlete ticipant on the intercollegiate baseball team for				
PED 212—Advanced Basketball II	2	0	1	
Designed for the more advanced male athlete ticipant on the intercollegiate basketball team team.				
PED 214—Cheerleading II	2	0	1	
Approaches to the techniques of cheerleading which are based upon crowd psychology, cheerleading conduct on the field of play, and the cheerleading squad as a whole. Directing cheers, basic techniques in "motion," breath- ing, and tumbling. All prospective cheerleaders must be registered for their second year on the squad. Open to men and women.				
PED 221—Advanced Baseball II	<b>2</b>	0	1	

Designed for the more advanced male athlete who must be an active participant on the intercollegiate baseball team for his second year on the team.

	Hours Pe	r Week	Quarter
Course Title	Class	Lab	Hours Credit
HUMANITIES			
ART 101—Art Appreciation	5	0	5
Art expression emphasizing styles and form and continuing to the art of present day, includin			
DRA 202—Acting	3	0	3
A study of the basic principles underlying the stage technique through the training of the boo of expression.			
DRA 203-Intermediate Acting	3	0	3
A continuation in the study of basic principart; further development of stage technique to body and voice as instruments of expression. Prerequisite: DRA 202			
DRA 210—History of the Theater	5	0	5
A survey of the history of the theater beginnin tinuing with the development of drama to its p Prerequisie: None			and con-
MUS 101—Music Appreciation	5	0	5
A study of the basic fundamentals of music wit and composers, giving reference to cultural bac of music with the other arts.			
PHI 201—Introduction to Philosophy	5	0	5
An introduction to the basic problems of huma of fundamental issues underlying daily life. relevant philosophers from the Greeks to the	A survey		
SPH 201—Fundamentals of Speech	3	0	3
The study and practice or oral communication. physiology of speech, basic speech skills, speed and presentation. Prerequisite: None			
SPH 202-Voice and Diction	3	0	3
A course designed to develop the voice to its emphasizing central diaphragmatic breathing clear articulation, and correct pronunciation. Prerequisite: SPH 201			
MACHINE SHOP	•		
MEC 1100—Machine Shop: Basic	2	6	4
Further develop skills in the use of measuring with the procedures of layout work, correct r basic fundamentals of drill press and lathe o drill bits and lathe tools to meet needs commo Prerequisite: None	nethod of peration a	using hand	and tools, grinding
MEC 1112—Machine Shop Processes	0	6	2
To acquaint the student with the procedures of use of hand and machine tools. Experiences in drill press and lathe operation; hand grinding set-up work applied to the trade.	n the basic	fundam	nentals of

set-up work applied to the trade. Prerequisite: None

Hours Per Week Quarter Hours Credit

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### MAT 91—Preparatory Algebra

A course for students without an adequate background in algebra. This course is designed for students who have less than two units of high school algebra or whose placement test scores indicate a need for review. The instructor will design a program of instruction to meet the needs of the individual. Topics include competence in the fundamental operations for counting numbers, integers, and rational numbers; simplification of algebraic expressions; solutions of equations; linear graphs; simultaneous linear equations; factoring, solutions of quadratic equations by factoring. Additional topics are included for those intending to register for MAT 102. **Prerequisite:** None

### MAT 93—Mathematics I

Reading numerals and decimals, rounding whole numbers, addition, subtraction, multiplication and division of whole numbers and decimals. Prime and composite numbers, common fractions, decimal fractions. Appropriate practical application problems.

### MAT 94—Mathematics II

The meaning of percent. Relationship between percent, fractions and decimals. Squares and square roots. Binary numbers. Measure of weight-dry capacity measure and liquid measure. Measure of time-24-hour clock. Compound numbers of two or more denominations-fundamental operations. Aliquot parts.

#### MAT 95—Mathematics III

Introduction to word problems and solution to simple equations, formulas and evaluation of algebraic expressions as they pertain to payrolls, simple and compound interest, taxes, installment buying and other consumer problems. Interpretation of tables and graphs.

### **T-MAT 101—Technical Mathematics**

The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.

Prerequisite: Satisfactory evidence that admission requirements have been met

### MAT 102—College Algebra

This course offers an introduction to an algebraic structure through the use of the algebra of sets, an axiomatic development of the real numbers, and the algebra of polynomials; a rapid review of elementary algebra; an introduction to elementary functions through the study of algebraic, exponential, and logarithmic functions; and an algebraic and graphical solution of systems of linear and quadratic equations and inequalities. Additional topics include: determinants, binomial theorem, permutations, combinations, theory of equations, and complex numbers.

Prerequisites: Two years of high school algebra or MAT 111 and 112 with the recommendation of the instructor

### **T-MAT 102—Technical Mathematics**

A continuation of T-MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binomial expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studies in depth. Prerequisite: T-MAT 101

## **Course** Title

MATHEMATICS

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Course Title	Hours Per	Week	Quarter Hours
Course Inte	Class	Lab	Credit
MAT 103—Trigonometry	5	0	5

This course offers a review of sets, real numbers, relations and functions, geometric concepts, and the rectangular and polar coordinate systems; an analytical and graphical study of the properties and applications of the trigonometric and circular functions, the inverse trigonometric functions, vectors, and complex numbers; a study of the techniques of proving trigonometric identities and solving trigonometric equations; and the use of logarithms as applied to trigonometric problems.

Prerequisites: MAT 102 or MAT 112 and the recommendation of the instructor

### **T-MAT 103—Technical Mathematics**

The fundamental concepts of analytical geometry, differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Applications of these concepts to practical situations are stressed. Prerequisite: T-MAT 102

#### T-MAT 106—Electronic Data Processing Mathematics I

This course offers a comprehensive study of place-value, number bases, scientific and floating-point notations, and the concept of absolute value; a development of the Laws of Exponents; an introduction to the operations on irrational algebraic expressions; an introduction to elementary and logarithmic functions; exercises in the interpretation of graphs and solutions of linear equations and inequalities; and an introduction to the solution of linear systems in two variables. Prerequisite: None

# T-MAT 107—Electronic Data Processing

Mathematics II

This course is a continuation of T-Mat 106. Topics presented are: multivariable linear systems, determinants, Cramer's rule, matrix theory and applications to linear systems, sequences and series, introduction to logic and Boolean algebra, and algorithms and iterative techniques. Prerequisite: T-MAT 106

### MAT 110—Business Mathematics

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: None

#### MAT 111-Contemporary College Math I

This course, preceding MAT 112, is designed to introduce to the general and liberal arts student broad areas of mathematics which appear to have contributed to civilization and which may be utilized by him in his endeavors. MAT 111 includes mathematical systems and structures, such as the algebra of sets, logic, number systems, and elementary algebraic operations. Numeration systems are also studied.

Prerequisite: MAT 91 or equivalent

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**Course Title** 

Hours Credit Class Lab Hours Per Week Quarter

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MAT 112—Contemporary College Math II

This course is a continuation of MAT 111. Topics include the simplification of algebraic expressions and the study of radicals and rational exponents, equations and inequalities, polynomials, relations, functions and graphs, permutations, combinations, and an introduction to probability and statistics.

Prerequisite: MAT 111

MAT 201—Calculus and Analytic Geometry I 0 5

This course offers an introduction to differential and integral calculus through a study of slopes of lines and curves; concept of limits and continuity; concept of, and method for finding, derivatives; differentials and their use in related rates, maxima, minima; a development of the Mean Value Theorem; and a study of the definite integral, simple methods of integration and their use in finding areas under a curve.

Prerequisites: MAT 102 and MAT 103 or permission of the Dean of Academic Affairs

MAT 202—Calculus and Analytic Geometry II 5

This course offers a continuation of MAT 201 through a study of methods in differentiating and integrating the transcendental functions; a development of the Fundamental Theorem of Calculus; applications of integration in word problems, volumes of simple solids of revolution and practical applications involving transcendental functions; and the inverse trigonometric function with differentiation and integration.

Prerequisite: MAT 201 or equivalent.

MAT 203—Calculus and Analytic Geometry III

This course offers a continuation of MAT 202 through a study of differentiation and integration of hyperbolic functions, polar equations of two space curves, additional methods of integration formulas such a partial fractions, conic sections; a review of determinants of linear equations and matrices; tangents and normals in two-space; and a deeper look at limits. Prerequisite: MAT 202 or equivalent

#### MAT 204—Calculus and Analytic Geometry IV 0 5 5 This course offers a continuation of MAT 203 through a study of se-

quences and series; vectors including differentiation, curvature, tangents and normals in three-space; partial derivaties and multiple integrals. Prerequisite: MAT 203 or equivalent

#### MAT 250—Introductory Statistics 2 This course relates general concepts and methods in statistics with appli-

cations to contemporary life. Topics include introduction to statistical thought, descriptive statistics, problems of sampling and inference, testing of hypotheses, regression, correlation, and selected basic statistical techniques.

Prerequisite: MAT 112 or MAT 102

### MAT 251—Statistics Laboratory I and Directed Study

A laboratory program which is individually designed to meet the needs of the student in his interests or chosen field. Selected topics and problems will be assigned.

Prerequisite: MAT 250 or equivalent

Course Title	Hours Per Class		Quarter Hours Credit
MAT 252—Statistics Laboratory II and Directed Study	0	2	1
This course is a continuation of MAT 251, tunity for a greater in-depth study of probl	0		

tunity for a greater, in-depth study of problems and statistical techniques. Prerequisite: MAT 251 or equivalent

**MAT 1101—Fundamentals of Mathematics** 5 5 Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth. Prerequisite: None

#### MAT 1102—Mathematics: Algebra

Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtration, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition, and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation.

Prerequisite: None

#### MAT 1103—Geometry

Fundamental properties and definitions; plans and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations. Prerequisite: None

#### MAT 1104—Trigonometry

Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems. Prerequisites: MAT 1102, MAT 1103

## MAT 1112—Building Trades Mathematics

Practical problems dealing with volumes, weights, ratios; mensuration; and basic estimating practices for building materials. Prerequisite: MAT 1101

#### MAT 1115—Electrical Mathematics

This course analyzes basic concepts and operations in the base-10 numeration system, develops the use of formulas, and emphasizes skills in solving problems in electrical and related business calculations. Other topics may include powers of 10, scientific notation, tables and their interpretation, measurement of surfaces and volumes, wire sizes and ampacities, roots, and related subjects. Prerequisite: None

### MAT 1116—Electrical Mathematics

This is a continuation of MAT 1115 and deals with trigonometric functions, logarithms, plane vectors, alternating current, the use of the slide rule in computation and additional study of algebra. Prerequisite: MAT 1115

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Course Title	Hours Per Class	· Week Lab	Quarter Hours Credit
MASONRY			

### MAS 1101—Bricklaying

The history of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, and tools and their uses. Laboratory work will provide training in the basic manipulative skills. Prerequisite: None

#### MAS 1102—Bricklaying

Designed to give the student practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches and cavity walls. The proper use of bonds, expansion strips, wall ties and caulking mothods are stressed. Prerequisite: MAS 1102

#### MAS 1103—General Masonry

Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta and modular masonry construction theory and techniques. Prerequisite: MAS 1102

#### MAS 1113—Masonry Estimating

This is a practical course in quantity "take off" from prints of the more common type jobs for bricklayers and masons. Figuring the quantities of materials needed and costs of building various components and structures. Prerequisite: MAS 1103

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Course Title	Hours Per	Week	Quarter Hours	
	Class	Lab	Credit	
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## PRACTICAL NURSE EDUCATION

#### NUR 1001—Practical Nursing I

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Designed to assist students in acquiring the knowledge, understandings, appreciations, and attitudes basic to effective nursing of patients of all ages and backgrounds. Emphasis is on nursing needs arising both from the individuality of the patient and from inability for self-care as a result of a health deviation. Patient-centered studies include analysis of patient needs, both through classroom study of hypothetical patient situations and through planned experiences in the clinical environment. Beginning skills in nursing methods are developed through planned laboratory practice and supervised patient care.

OBJECTIVES: To assist beginning students in practical nursing to acquire basic knowledge from nursing and related subject areas and to begin to develop the skills needed for safe and effective bedside care of patients in a state of dependency due to health deviations.

COURSE MATERIAL:

Nursing— History Introduction to Patient Care

Health— Personal, Physical and Mental Family Community

Basic Science— Body Structure and Function Bacteriology Basic Nutrition

Vocational Adjustments— Introduction to Ethics Legal Aspects of Nursing

Communications and Human Relations

Prerequisite: Admission requirements

#### NUR 1002—Practical Nursing II

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Designed to introduce the student to deviations from normal, to nursing methods and therapeutic procedures, and to the clinical specialties. Continued patient-centered study, with introduction of the illness condition as an additional source of nursing needs. Increased emphasis on clinical activities and selected patient care.

OBJECTIVES: To assist practical nursing students to acquire further knowledge and understanding and to develop further skills needed for rendering safe and effective nursing care to selected patients of all ages.

COURSE MATERIAL:

Medical Surgical Nursing— Patient Care Therapeutic Methods, including administration of oral medications Introduction to Maternity Nursing Introduction to Nursing the Sick Child Communications and Human Relations

Prerequisite: NUR 1001

Course Title	Hours Per	Hours Per Week		
	Class	Lab	Hours Credit	
NUR 1003—Practical Nursing III	12	24	396	

Designed to acquaint the student with common illness conditions, related nursing needs and therapeutic methods, and role of the practiced nurse in care of patients with specific conditions. Learning situations are selected to illustrate commonalities with a wide variety of simlar conditions and to promote student awareness of similarities and differences. Clinical practice emphasizes student experience in care of subacutely ill patients with a wide variety of illnesses, correlated with classroom studies insofar as possible.

OBJECTIVES: To assist practical nursing students to acquire knowledge of common disease conditions and to develop beginning skills in rendering nursing care to patients of all ages with specific needs arising from the illness and/or therapy.

COURSE MATERIAL:

**Common Medical-Surgical Conditions** 

Care of the Subacutely Ill Child

Care of Maternity Patients and Newborn Infants with Complications Prerequisite: NUR 1002

#### NUR 1004—Practical Nursing IV

Designed to introduce the student to care of patients with complex nursing needs and to the assisting role of the practical nurse in situations requiring judgments based on depth of knowledge. Clinical practice includes supervised care of labor patients and seriously ill adults and children. OBJECTIVES: To assist advanced practical nursing students to acquire knowledge of needs of seriously ill patients, to develop beginning skills in

assisting the registered nurse and/or physician in complex nursing situations, and to make the transition to the role of graduate practical nurse.

COURSE MATERIAL:

Needs of the Serionsly Ill Patient

Needs of Patients in Immediate Post-Operative Period

Needs of the Labor Patient

Needs of the Seriously Ill Child

Assuming the Role of Graduate Practical Nurse Prerequisite: NUR 1003

Course Title	Hours	Per Week	Quarter Hours	
DADIO AND THE EVICION CEDVICING	Class	Lab	Credit	
RADIO AND TELEVISION SERVICING				
ELN 1112—Direct and Alternating Current	5	15	10	
A study of the structure of matter and the elect between voltage, current and resistance in series lel circuits. Analysis of direct current circuits by Law; sources of direct current potentials. Fund- nating current flow; a study of reactance, imp and resonance and alternating current circuit a Prerequisite: None	s, paral y Ohm's damenta edance,	lel, and seri Law and K al concepts phase angl	es-paral- Airchoff's of alter-	
ELN 1122-Vacuum Tubes and Circuits	5	9	8	
An introduction to vacuum tubes and their development; the theory, char- acteristics and operation of vacuum biodes, triodes, pentodes, tetrodes, and special purpose tubes. The principles of radio and amplifier circuits using vacuum and other tube types. A study of power supplies and basic test equipment circuitry is included. Prerequisites: ELC 1112, MAT 1115				
ELN 1123—Introduction to Television	2	6	4	
The theory and circuitry of monochrome telev Prerequisites: ELN 1122, ELN 1125, MAT 1110				
ELN 1124—Servicing Home Entertainment Electronic Devices	2	6	4	
The principles and techniques of servicing radio receivers including AM, FM, and stereo. Tape recorders, amplifiers, and record player servicing are covered. Proper use of test equipment for diagnosis, alignment, and repairs are stressed. Prerequisites: ELN 1122, ELN 1123				
ELN 1125—Transistor Theory and Circuits I	2	6	4	
Transistor theory, physics, characteristics, and receivers and audio amplifier circuits. Prerequisites: E LC 1112, MAT 1115	_	-	_	
ELN 1126—Transistor Theory and Circuits II	2	9	5	
The theory and application of recent semi-conductor developments including zener diodes, tunnel diodes, field effect transistors, silicon controlled recti- fiers, break over diodes (diacs), unijunction transistors and triacs. Prerequisites: ELN 1125, ELC 1112, MAT 1115				
ELN 1127—Television Receiver Circuits and Servicing	. 10	15	15	
<ul> <li>A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of troubleshooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, troubleshooting and repair of the color television circuits.</li> <li>Prerequisites: ELN 1123, ELN 1122, ELN 1124, ELN 1125, ELN 1126, MAT 1116</li> </ul>				
MILLI IIIO				

	Hours	Per We	·····
Course Title	Class	La	Hours b Credit
SCIENCE			
BIO 101—General Biology Introduction to principles and concepts of bio its physical and chemical properties and genetic			4 of the cell,
BIO 102—General Biology	3	2	4
A study of the organism and organ systems incl nutrition, response, and behavior. Each topic a discussion of specific genera which illustrate v	will be	approac	hed through
BIO 103—General Biology	3	2	4
A survey of the plant and animal kingdoms wi evolution, and ecological concepts.	ith emp	hasis or	n adaptation,
BIO 121—Human Anatomy and Physiology I	4	2	5
The study of the structure and function of the nervous, circulatory, and respiratory systems, these various systems to total body functioning. Prerequisite: None	, and $\mathbf{t}$		
BIO 122—Human Anatomy and Physiology II	4	2	5
Part two of an integrated anatomy and physi body with greater emphasis on the head and ne Prerequisite: BIO 121	00		f the human
BIO 123—Introduction to Microbiology	3	3	4
Study of the fundamental principles of micro-or cation, classification, morphology, culture met transmission, sterilization and pathogenic orga Prerequisite: None	chods an		
BIO 1101—Preclinical—Microbiology & Gross Anatomy & Physiology	2	2	3
Study of micro-organisms, including the classifi methods and media, identifying the role of par modes of transmission and methods of contr provide opportunities for microscopic study of and cultures, and for identifying colonies of isms. A study of the organizational plan of t nine body systems. Emphasis is placed upon the various processes essential to total body funct Prerequisite: None	thogenic ol. Lab slides, selected he hum e role o:	c specie oratory for prep l pathog an body f the sy	s in disease, experiences paring slides genic organ- and of the stems in the
CHE 101—General Chemistry	3	3	4
Introduction to the fundamental principles of atomic and molecular structure; chemical bone chemical periodicity; and chemical reactions, fo	ding an	d states	of matter;
CHE 102—General Chemistry	3	3	4

A continuation of CHE 101 with emphasis on acid-base theory and elementary organic chemistry. Prerequisite: CHE 101

Course Title	Hours Per		Hours
	Class	Lab	Credit
CHE 103—General Chemistry	3	3	4

A continuation of CHE 102 with emphasis on solution chemistry, ionic equilibria and electrochemistry. Laboratory work concentrates on the procedures and techniques of inorganic qualitative analysis. Prerequisite: CHE 102

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#### CHE 104-Nutritional Chemistry

The basic principles of nutrition and dietetics and how they apply to personal and community health. An analysis of diets, vitamin requirements, etc. to meet the needs of individuals in various life stages with emphasis on the responsibility of the dental hygienist in this role. Prerequisite: CHE 102

#### **T-PHY 101—Physics: Properties of Matter**

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: None

#### **T-PHY 102—Physics: Work, Energy, Power** 3

Major areas covered in this course are work, energy, and power. Instruction includes such topics as statics, forces, center of gravity and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas.

Prerequisites: T-PHY 101, T-MAT 101

#### **T-PHY 104—Physics: Light and Sound**

A survey of the concepts involving wave motion leads to a study of sound, its generation, transmission and detection. The principles of wave motion also serve as an introduction to a study of light, illumination and the principles involved in optical instruments. Application is stressed throughout. Prerequisites: T-MAT 101, T-PHY 101

#### PHY 1101—Applied Science

An introduction to physical principles and their application in industry. Topics in this course include measurement, properties of solids, liquids, and gases, basic electrical principles. Prerequisite: None

### **PHY 1102—Applied Science**

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat thermometry, and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101

#### 'HY 1103—Work, Energy, Power

Physical principles of force, energy, work and power; equilibrium and the laws of motion; principles of machines, mechanical advantage, and transmission of power in practical applications and the use of vectors and graphical presentations.

Prerequisites: PHY 1101, MAT 1101

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Course Title	Hours Pe		Quarter Hours
DHV 1105 Shan Seisnes I	Class	Lab	Credit
PHY 1105—Shop Science I Principles of measurement and a study of e electron theory, magnetism, electromagnetism elements of circuits and their effect on curren Prerequisite: None	n and its	applicat	ion, and
PHY 1106—Shop Science II	3	2	4

A discussion of basic physical principles and their application to industry. Topics of study may include properties of solids, liquids and gases; work and energy; power and power transmission; hydraulics; and thermodynamics.

Prerequisite: PHY 1105

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Course Title	Hours Per	Week	Quarter
Course Title	Class	Lab	Hours Credit
SOCIAL SCIENCES			
EDU 201—Introduction to Education The study of education as an institution in s educational system in the United States, its fu history.		<b>▲</b>	
GEO 201—Physical Geography A study of basic concepts of physical geographic features, weather, climate and astronomical r Regional and cultural geography are emphasized	elationship	are emp	phasized.
GEO 202—Cultural Geography	5	0	5
A study in world patterns of population distr diversity, settlement, production and consum munication, and territorial organization. Man <sup>2</sup> and his environment is emphasized throughou	ption, tran 's relationsl	sportation hip with	on, com-
HIS 101—Western Civilization I A study of the forces responsible for the ris			3 tes from
prehistoric times through events prior to the R HIS 102—Western Civilization II	enaissance.	0	3
A survey of the Renaissance, the Age of Re Agricultural and Industrial Revolution, Constit land, Imperialism, the French Revolution, and ploration and colonization of non-European and influence on Europe. Prerequisite: None	utional Gov d Congress	the Con ernment of Vier	nmercial, in Eng- nna. Ex-
HIS 103—Western Civilization III	3	0	3
A survey of the European political revolts, p many and Italy, World War I, World War I Nazism and Facism, the development of Comp the Cold War. Prerequisite: None	I, and the	rise and	d fall of
HIS 201—American History	5	0	5
A survey of the history of the United States fro to the end of the Civil War. Emphasis is place and cultural developments of the United States Prerequisite: None	d on the ec		
HIS 202—American History	5	0	5
A survey of the history of the United Stat period to the present. Emphasis is placed on domestic and international problems, and the v Prerequisite: None	the study		
<b>'OL 201—American Federal Government</b>	5	0	5
The study of the origins, development, structure Federal Government. Prerequisite: None	ure, and fu	nctionin	g of the
'OL 202-State and Local Government	5	0	5
A survey of the functions of state and local ernmental relationships with emphasis on the state and local governments.			

	Hours	Por	Wook	Quarter
Course Title	Class		Lab	Hours Credit
T-POL 201—United States Government	3		0	3
A study of government with emphasis on basic procedures and problems. Prerequisite: None	-	ts, st	-	e, powers,
PSY 1101—Human Relations	3		0	3
A study of the principles of human behavior. Th are studied in relation to society, group me within the work situation. Prerequisite: None	ne problembersh	ems ( ips a	of the i and rel	ndividual ationship
T-PSY 206—Applied Psychology	3		0	3
A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job prob- lems. Other topics are 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 his adjustment problems as a worked and a member of the general community. Prerequisite: None				
PSY 201—Introduction to Psychology	5		0	5
The introductory study of psychology. The course includes the study of principles of behavior in the areas of motivation, perception, learning, in- telligence, and the organization of personality. Prerequisite: None NOTE: This course may be taken through Independent Study under the supervision of an appropriate faculty member and in conjunction with the Learning Center.				ning, in-
PSY 202—Growth and Development	5		0	5
A study of the growth and development of the human being, beginning with the prenatal environment, with emphasis given to emotional, social, and intellectual development. Prerequisite: None				
SOC 201—Introduction to Sociology	5		0	5
A study of the fundamental principles and concepts of sociology, with emphasis on contemporary American Institutions in relation to technologi- cal change. Prerequisite: None NOTE: This course may be taken through Independent Study under the supervision of an appropriate faculty member and in conjunction with the Learning Center.				
COC 202 Casial Drahlama	-		0	-

### SOC 202-Social Problems

An introduction to the nature of social and cultural problems in contemporary society. Specific attention will be given to the causes, control, treatment, and prevention of problems relating to crime, divorce, race problems, poverty, and housing.

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Prerequisite: None

Course Title	Hours Pe	er Week	Quarter Hours
course ritte	Class	Lab	Credit
SOC 203—Marriage and the Family	5	0	5
A study of marriage and family life as a socia approach to premarital and marital relationship problems of the contemporary American family Prerequisite: None	os, with en		
T-SSC 201—Social Science	3	0	3
An integrated course in social sciences, draw thropology, psychology, history, and sociology. Prerequisite: None	ing from	the field	s of an-
T-SSC 202—Social Science	3	0	3
A further study of social sciences with emphasized science, and social problems as they relate to the Prerequisite: T-SSC 201			political
<b>T-SSC 205—American Institutions</b>	3	0	3
A study of the effect of American social, econ tions upon the individual as a citizen and as a upon current local, national, and global problem	worker.	The cours	se dwells

tions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economic heritage. Prerequisite: None

## SP-1198 SPECIAL PROBLEMS

Elective course in programmed instruction offered through the Learning Laboratory. Student may, with approval from the Learning Lab Coordinator, select a course of pursuit from a variety of subject areas—to include math, English, reading comprehension, science, and subjects of general interest. Credit hours received will depend upon hours in attendance.

Course Title WELDING	Hours Per Class	Week Lab	Quarter Hours Credit	
WLD 1101—Basic Gas Welding Welding practices on materials applicable to of body panels. Students run beads, does butt Performs tests to detect strength and weakne procedures are emphasized throughout the con Prerequisite: None	and lap we ess of welde	elds and	brazing.	
WLD 1105—Auto Body Welding132Taught in conjunction with AUT 1112, the welding skills gained in WLD 1101 are used to repair tears or cracks in sheet metal, patch panels or cut and replace damaged panels. Frames are also repaired using panels to reinforce weak or damaged areas. Prerequisite: WLD 1101				
WLD 1112—Mechanical Testing and Inspection The standard methods for mechanical testing introduced to the various types of tests and ofrms the details of the test which will give the quality of the weld. Types of tests to be co free-bend, guided-bend, nick-tear, notched-ber	testing proc adequate ir vered are: b	cedures formatioend, des	and pe <b>r-</b> ion as to structive,	

V-notch, Charpy impact, etc.

Prerequisites: WLD 1120, WLD 1121

WLD 1120—Oxyacetylene Welding and Cutting 3 12 7 Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

Prerequisite: None

#### WLD 1121—Arc Welding

The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.

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Prerequisite: None

#### WLD 1122—Commercial and Industrial Practices 3 9

Designed to build skills through practices in simulated industrial processes and techniques: sketching and layout out on paper the size and shape description, listing the procedure steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding and nondestructive tests and inspection. Prerequisites: WLD 1120, WLD 1121

### WLD 1123—Inert Gas Welding

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and

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Course Title	Hours H	Per Week	Quarter Hours
Jourse mile	Class	Lab	Credit
practice in the various positions. A thorough principles of operation, shielding gases, filler is applications, manual and automatic welding. Prerequisite: WLD 1120, WLD 1121			
VLD 1124—Pipe Welding	3	12	7
Designed to provide practice in the welding of zontal, vertical, and horizontal fixed position welding processes according to Sections VIII a Prerequisite: WLD 1121	using :	shielded n	netal arc
VLD 1125—Certification Practices	3	6	5
This course involves practice in welding the various materials to meet cer- tification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Em- phasis is placed on attaining skill in producing quality welds. Prerequisites: WLD 1120, WLD 1121, WLD 1123, WLD 1124			

#### WLD 1129—Basic Welding

Basic characteristics of metals, equipment, its construction and operation are presented by means of audio-visuals and other educational media. Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment. Practice will be given in surface welding; bronze welding, silver-soldering, and flame-cutting and are welding methods applicable to mechanical repair work.

Prerequisite: None

### WLD 1180-Basic Welding

A short course in welding, both oxyacetylene and electric, designed as a helping course for Automotive Mechanics, Air Conditioning and Refrigeration Trade, Drafting, Sheet Metal and Machine Shop. This course covers a minimum of technical facts, and is designed to teach the student to weld in the flat position only with electric arc and oxyacetylene.

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Creducto Study University of Vincinia and Idaho State University
Graduate Study—University of Virginia and Idaho State University
L.H.D. (Honorary)—Instituto de Estudios Iberoamericanos
L.H.D. (Honorary)—Instituto de Estudios Iberoamericanos Marcia L. Windham Instructor, Biology
L.H.D. (Honorary)—Instituto de Estudios Iberoamericanos

## **OFFICE PERSONNEL**

## GENERAL ADMINISTRATION

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Mrs. Fran Grant	Secretary, Dean of Academic Affairs			
Mrs. Carol Grimes	Secretary, Cooperative Education			
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	Head Bookkeeper			
Mrs. Jeannette Jones	Bookkeeper			
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	Receptionist			
Mr. Gray Padgett	Equipment Clerk			
Mrs. Donna Strickland	Secretary, Dean of Student Affairs			
Mrs. K ay Thomas	Secretary, Dean of Continuing Education			
Mrs. Marge Warden	Secretary, Director of Evening Programs			
Mrs. Margaret Woolley	Secretary, Business Manager			
INSTRUCTION				

Mrs. Ruby Walton Secretary to the Faculty LIBRARY Secretary to the Librarian

Mrs. Sybil Moore

# MAINTENANCE

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Mrs. Donna Baxter	Custodian
Mrs. Beulah Duncan	Custodian
Mr. Richard Jones	Maintenance Man
Mr. Gary W. Darche	Maintenance Man

The only valid philosophy for North Carolina is the philosophy of total education: a belief in the incomparable worth of all human beings, whose claims upon the State are equal before the law and equal before the bar of public opinion, whose talents (however great or however limited or however different from the traditional) the State needs and must develop to the fullest possible degree. That is why the doors to the institutions in North Carolina's System of Community Colleges must never be closed to anyone of suitable age who can learn what they teach. We must take the people where they are and carry them as far as they can go within the assigned function of the system. If they cannot read, then we will simply teach them to read and make them proud of their achievement. If they did not finish high school but have a mind to do it, then we will offer them a high school education at a time and in a place convenient to them and at a price within their reach. If their talent is technical or vocational, then we will simply offer them instruction, whatever the field, however complex or however simple, that will provide them with the knowledge and the skill they can sell in the marketplaces of our State, and thereby contribute to its scientific and industrial growth. If their needs are in the great tradition of liberal education, then we will simply provide them the instruction, extending through two years of standard college work, which will enable them to go on to the University or to senior college, and on nto life in numbers unheard of in North Carolina. If their needs are for cultural advancement, intellectual growth, or civic understanding, then we will simply make available to them the wisdom of the ages and the enlightenment of our times and help them on to naturity.

> DR. DALLAS HERRING, Chairman N. C. State Board of Education

Dave Caladina a.N.C. Sidnan Chapel Hill N.C. 27514 allect 170.0