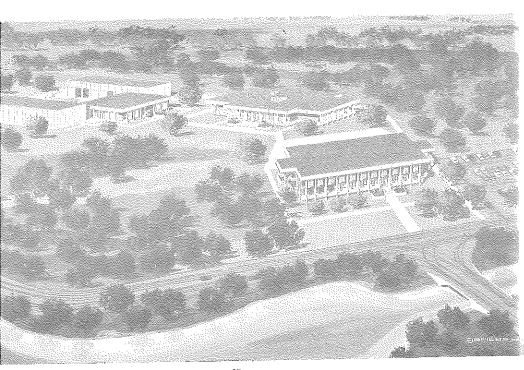
OTHERMAL OMMUNITY COLLEGE

1967 - 1968





General Catalog



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WINTER QUARTER, 1968

Jan. 2, Tues.

Jan. 3, Wed.

Jan. 4, Thurs.

Jan. 11, Thurs.

Jan. 18, Thurs.

Mar. 13, Wed.

Mar. 14, 15, 18, Thurs.,

Fri., Mon.

Mar. 19, Tues.

SPRING QUARTER, 1968

Mar. 25, Mon.

Mar. 26, Tues.

Mar. 27, Wed.

Apr. 3, Wed.

Apr. 10, Wed.

Apr. 12, Fri.

June 5, Wed.

June 6, 7, 10, Thurs.,

Fri., Mon.

June 11, Tues.

Freshman and Transfer Orientation.

Registration.

Classes begin.
Last day to change

schedule. Last day to withdraw

without penalty.
Last day of classes.

Examinations.

Spring Holidays begin.

Freshman and Transfer Orientation.

Registration.

Classes begin.

Last day to change schedule.

Last day to withdraw without penalty.

Easter Holiday.
Last day of classes.

Examinations.

Summer Holidays begin.

SUMMER TERMS, 1968

FIRST SESSION

June 13, Thurs.

June 14, Fri.

June 17, Mon.

June 20, Thurs.

Freshman and Transfer Orientation.

Registration.

Classes begin.

Last day for registration

(continued)

ily 4, Thurs. uly 19, Fri. aly 22, 23, Mon., Tues.

Independence Day Holiday. Last day of classes.

Examinations.

ECOND SESSION

ıly 24, Wed.

ıly 25, Thurs. ıly 31, Wed.

ig. 28, Wed.

ig. 29, 30, Thurs., Fri.

Registration.

Classes begin.

Last day for registration. Last day of classes.

Examinations.

ISOTHERMAL COMMUNITY COLLEGE BOARD OF TRUSTEES

H. Paul BridgesCliffside
Ivy CowanSpindale
W. M. Elliott (M.D.)Forest City
Spencer D. GambleBostic
J. T. Mize (D.D.S.)Tryon
Hollis M. Owens, JrRutherfordton
Max Padgett, SecretaryForest City
Robert R. SprattCaroleen
James T. Tanner, Vice-ChairmanRutherfordton
J. J. Tarlton, ChairmanRutherfordton
A. Clyde TomblinSpindale
Frank H. WestCaroleen

ADMINISTRATION

President	
Dean of the CollegeB.S., M.S., Ed.D.	
Dean of Student Affairs	
Director of Adult EducationRichard T. Brinkley, B.S., M.A.	
Director of Technical-Vocational Division	•
Director of Evening ProgramsElliott M. Shearon, B.S., M.A.	
Business Manager M.S. M.A.T.	و .
RegistrarWilbur Wright, B.S., M.S.	
Bookkeeper	3

SECRETARIAL STAFF

Mrs. Dianne Bailey Mrs. Nancy H. Collins Mrs. Frances Logan Mrs. Doris U. Lowery Mrs. Janice Watson



A MESSAGE FROM THE PRESIDENT

We believe that every citizen should have the opportunity to study and work in whatever field best suits his individual abilities and desires.

We believe that no interested and capable student should be denied the privilege of attending a college or vocational school of the highest quality.

we believe that knowledge and skill are essential to a happy productive life for our people and for the welfare of our nation.

We believe that since no one's education is ever complete, continuing education can be beneficial to any community.

Because of our belief in these principles, and in the philosophy of the Community College, we are extending every effort to bring to the people of this area the best possible education and training at a price they can afford to pay.

Fred J. Eason

President

GENERAL INFORMATION

ISTORY OF THE COLLEGE

Isothermal Community College was authorized by the 1963 eneral Assembly under Chapter 115A, General Statutes of North arolina. The new college will be located in the Oakland community on a 107 acre tract, and the new campus if expected to be ready for use in the fall of 1967.

Permanent buildings are being constructed on the beautful wooded site one mile south of Spindale, and two miles orth of Forest City, near the center of the two counties, authorford and Polk. The New Highway 74 (a modern four-lane highway) will pass near the front entrance to the college campus.

The institution is planned as a commuter's college with classes taught both day and night. Four basic curricula include: college parallel, technical, vocational and adult education courses. Courses in adult education are initiated on the basis of adult interest and demand. College parallel, echnical and vocational courses are planned along the lines of other college programs throughout the state. Qualified instructors are selected to fill each position on the teaching staff, in each curriculum.

PURPOSE

Isothermal Community College is a comprehensive two-year institution. The purpose of the comprehensive college is to provide for all citizens beyond the normal high school age appropriate, economical, and convenient learning opportunities. The various programs include two-year college parallel and technical programs, one year vocational programs, a variety of educational programs for adults and guidance services for in-school and out-of-school citizens. Isothermal Community College offers help for the student in developing the understandings, dispositions, and habits required for living effectively. The college also seeks to prepare students for successful entry into senior colleges and universities as juniors or for immediate entry into an occupation.

OBJECTIVES OF THE COLLEGE

The Isothermal Community College objectives are:

- 1. To provide two years of transferable college credit courses for students desiring to transfer to four-year colleges.
- 2. To provide two years of technical education appropriate to the needs of the individual and the community.
- 3. To provide vocational education for persons desiring to prepare for a trade or upgrade themselves in their present jobs.
- 4. To provide an adult program based on community needs and interests with special emphasis on the following areas:
 - a. Basic education courses for grades 1-8.
 - b. High school equivalency certificate.
 - c. Cultural and community service programs.
- To provide a program of guidance and instruction which will help all students become effective members of a democratic society.

DEGREES AND DIPLOMAS OFFERED

Isothermal Community College offers the following degree upon satisfactory completion of a prescribed program:

- 1. Associate in Arts
 - a. Liberal Arts
 - b. Pre-Professional
- 2. Associate in Applied Science
 - a. Electronics Technology
 - b. Business Administration
 - c. Executive Secretary

3. Diploma Program

- a. Automotive Mechanics
- b. Electrical Installation and Maintenance
- c. Mechanical Drafting
- d. Welding
- e. Masonry
- f. Auto Body Repair

DEADLINE FOR SUBMITTING APPLICATIONS

Completed applications and all supporting data listed above should be received not later than four weeks prior to the beginning of the term for which the student plans to register. Any student who does not meet these admission requirements may be granted a conditional admission; however, if the admission requirements are not met within two weeks after the time of registration, a student will be withdrawn from the program.

TRANSCRIPTS OF RECORDS

Upon request of the students, a record of academic credit earned at the Isothermal Community College will be sent to any college or university or prospective employer.

Each student is entitled to one official transcript of his work, provided all accounts with the college have been settled satisfactorily. A student requesting an additional transcript should enclose one dollar for this service.

TRANSFER OF STUDENTS

Isothermal Community College will accept any transfer student who has maintained a satisfactory conduct standing in his previous institution. In general, approval to transfer resident credits and correspondence credits and their respective quality points will be granted for courses similar in content objective and quality to those included in the North Carolina Community College System instructional programs, providing such courses have been taken at accred-

ited educational institutions and providing the courses carried a grade of "C" or better. "D's" and "F's" will not be accepted or placed on the permanent records of this institution.

All applicable supporting documents for admission are required to be submitted along with the application for admission at least four weeks prior to registration. The following documents must be submitted for all transfer students:

- 1. A completed application for admission form.
- 2. A transcript of all previous academic work in colleges and/or institutions attended.
- 3. A report of a physical examination completed by a physician.
- 4. Placement testing is required for applicants who are transferring less than 15 quarter hours of acceptable credits.

In the case of extenuating circumstances a conditional admission status may be granted giving the student two weeks from the date of registration to meet these requirements; however, if these conditional requirements are not met by the end of the two week grace period, the student will be withdrawn from the curriculum program.

Students on discipline suspension from another institution are ineligible for enrollment for credit courses for at least one full term. If, after one session, the student still wishes to be considered for admission, he may submit the necessary application and transcript to the proper college authorities. If admitted, the student will be entered on strict probation for one term, and his eligibility to remain will be subject to review.

ACCREDITATION

"Isothermal Community College has established contact with the Southern Association of Colleges and Schools and has declared its intention to work closely with the Association in pursuit of accreditation and membership at the earliest possible date."

OFFICE OF THE DEAN OF STUDENTS

Student out-of-class life, services, and activities are coordinated through and by this office.

The Dean of Students and associated professional staff members are available to provide professional assistance to individual students and groups on all matters affecting student well-being. Specifically, these offices are organized to assist students and student groups in achieving the optimum opportunity for intellectual, social, cultural, physical, and moral development as citizens of the college community.

The staff members of these offices are ready at all times to counsel students and student representatives on college policies and procedures. Specifically, students are encouraged to seek information and guidance on academic, personal, and social matters.

HOUSING

Since Isothermal Community College does not have dormitory facilities, students wishing to live away from mome must arrange for their own living accommodations. The Dean of Students! office will assist students in locating available off-campus housing. However, the College does not assume responsibility for approving or supervising student housing.

LIBRARY

The Library is planned to provide students and faculty, both day and evening divisions, with the materials needed to support and enrich the instructional program of the college.

New books are being added continually. The openshelf system is used; students are encouraged to browse and use the reading room as a quiet place to study. A library handbook designed to explain our filing system for books and materials, and a floor plan for the library is furnished each new student at the time of registration.

STUDENT GOVERNMENT ASSOCIATION

The purpose and functions of the S.G.A. are to organize, supervise, and administer college-wide student activities and represent students to the Administration and the general public.

The Senate, or general governing body, is composed of representatives and officers from the College Parallel, Technical, and Vocational divisions.

STUDENT ACTIVITY FEE

A student Activity Fee will be charged each full-time (9 hours or more) student. The proceeds of this fee will remain in the college and will be budgeted cooperatively by students and faculty for in support of non-curricular educational activities. These activities shall include such functions as publications, speakers, artists, debate, drama, and the operation of the Student Government Association.

Part-time students may purchase a Student Activity Card. Otherwise they may be charged admission to certain functions.

STUDENT ORGANIZATION AND ACTIVITIES

Other student organizations and activities such as Student Newspaper and Student Center Committee will be organized as indicated by student needs and interest, subject to approval by the S.G.A. and the College Administration.

DRESS

One of the purposes of college experience is to afford the student the opportunity to practice effective personal grooming. Appropriate dress is encouraged and required. While the college aims to honor the individuality of each student, it reserves the prerogative to announce and implement regulations concerning dress.

TRAFFIC REGULATIONS

The maximum speed permitted on the campus shall not exceed posted maximum speeds and cars must be parked in the specified areas. Parking regulations will be issued at the time of registration.

ACADEMIC HONORS

THE DEAN'S LIST WITH HIGHEST HONORS

The Dean's List is designed to recognize all students whose academic performance is outstanding.

In order to qualify for the Dean's List with highest honors, a student must carry at least twelve (12) quarter hours of credit work during the quarter and maintain a 4.0 quality point average for the quarter.

THE DEAN'S LIST

In order to qualify for the Dean's List, a student must carry at least twelve (12) quarter hours of credit work during the quarter and maintain a 3.0 quality point average for the quarter.

GRADUATION WITH HONORS

Students who complete a degree or diploma program with a quality point ratio of 3.6 or better will be graduated with HIGH HONORS. The student who earns a quality point ratio of 3.00 to 3.50 will be graduated with HONORS.

GRADE REPORTS

A written mid-term report of the progress of a student in each of his courses will be provided to him before the end of the sixth week. Grade reports are furnished to the student at the end of each quarter.

BOOK STORE

The College operates a book store where the student may purchase needed books and supplies, with profits being used for College projects and services. The hours of operation will be determined each quarter and posted.

Used books will be purchased by the book store if they continue to be approved for use as a text. Used prices will be determined by the condition of the book. In no case will the repurchase price be more than 60% of the original price.

GRADING SYSTEM

Isothermal Community College is on a quarter system. Normally, one unit of credit is equal to one class hour meeting time per week. Where the laboratory is required, one credit hour will equal at least two hours of laboratory time.

The grading system is as follows:

Grade Significance	Quality	Points
A Excellent B Good C Fair D Passed F Failed WP Withdrawal Passing WF Withdrawal Failing I Incomplete	3 per 2 per	quarter hour quarter hour quarter hour quarter hour

A grade of "I" is assigned when the course work is incomplete. This grade can be removed if the course work is completed satisfactorily before the end of the following quarter.

GRADUATION REQUIREMENTS

Requirements for the degree or diploma will vary according to curriculum. The student should refer to the required courses in the catalogue which applies to his program so that he can ascertain the course requirements for graduation. All students must have a grade point average of 2.0 (C average) to be eligible for graduation.

STUDENT CLASSIFICATION

Freshman—A student who has earned fewer than 45 quarter hours of credit.

Sophomore—A student who has 45 hours or more quarter hours of credit.

Part-time-A student who is enrolled for less than 9 quarter hours.

STUDENT LOAD

Fourteen to Nineteen (14-19) hours will constitute the normal load a regular student is expected to carry each quarter. Any deviation from this load must be approved by the Faculty Advisor.

SCHEDULE CHANGES

All changes in schedule involving entrance into classes shall be adjusted during the first week of classes and shall be approved by the Faculty Advisor, and must always be done through the office of the Registrar.

COURSES DROPPED

Courses may be dropped only through arrangements made in the registrar's office. Courses dropped during the first two weeks of the quarter will not appear on the student's record. Courses dropped after the first two weeks will be marked 'W.P.' (Withdrew Passing) or 'W.F.' (Withdrew Failing). A 'W.F.' carries the same stigma as an "F".

CLASS ATTENDANCE

Regular and punctual attendance in classes and laboratories is required. No cuts are sanctioned. Regular attendance contributes greatly to academic success, and unnecessary absences are detrimental to a student's work.

The following rules govern absences:

Excused absences may be given by the instructor for the following reasons:

- A. Personal illness
- B. College activities
- C. Death or serious illness in the family
- D. Other reasons, such as court summons, military duty, etc., are left to the discretion of the Dean.

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TABLE PUBLIC

These should be cleared, when possible, with the instructor before the meeting of the class to be missed.

WITHDRAWAL FROM COLLEGE

To withdraw from college or from a course, the student will use the following procedure:

- 1. The student will obtain a withdrawal form from the Director of Student Personnel Services
- 2. The student will complete the form according to continue procedure and secure all signatures.
 - 3. A student may withdraw during the first two weeks of the quarter without scholastic penalty. This procedure, if followed, will entitle the student to have his permanent record show the notation "withdrawn". This notation indicates good standing and the privilege of readmission.
 - 4. Any student who withdraws after the first two weeks of the quarter will receive a grade of "WP" or "WF" A student who withdraws unofficially from college without following the proper withdrawal procedure will receive the grade of "F".

REFUND POLICY

- A. "Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for \$5.00 or less, except if a course or curriculum fails to materialize, then the entire tuition will be refunded."
- B. "In order to comply with federal regulations in institutions not regionally accredited, the State Board authorized modification of the tuition refund policy so that veterans or war orphans receiving benefits under U.S. Code, Title 38, Chapter 33 and 35, can be refunded the pro rata portion of the tuition fee not used up at the time of withdrawal of such students."

FINANCIAL ASSISTANCE FOR STUDENTS

Scholarships-Several scholarships are available to the students of Isothermal Community College. These scholarships are from \$50 to \$200 and are administered through the Dean of Students Office. Inquiries and applications for these scholarships should be made to the Dean of Students office. All full time curriculum students at Isothermal Community College are eligible.

Applications are accepted from high school seniors who have completed three and one-half years high school work and who plan to enter Isothermal Community College at the beginning of subsequent summer or fall quarters.

High School achievement is the primary basis for selecting scholarship winners; however, factors such as need, character and leadership are the basis for some scholarships.

Loans-The college has a number of loan funds such as the National Defense Student Loan and the College Foundation, Inc., which are administered by the Dean of Students.

Students borrowing from these loan funds must make arrangements to begin making payments on these accounts immediately upon withdrawal or graduation from Isothermal Community College in order that other worthy students may have the benefit of the funds. A student may pay his note account at any time before maturity.

The loan funds express the spirit of helpfulness that prevades the supporters of Isothermal Community College.

Some of these funds are living memorials to those individuals and organizations assisting worthy students to pursue their courses in North Carolina and at Isothermal Community College.

All curriculum students carrying at least 9 hours of course work are eligible for participation in the loan programs administered by the Dean of Students office.

Self-Helps-Part-time jobs are available for students wishing to earn a part of their expenses. These part-time jobs both on and off campus are assigned by the Dean of Students. Students who feel a definite need to pay a part of their education cost by working part-time should apply to the Dean of Students.

G. I. Bill—Students in technical and vocational programs will not be classified as full—time students for benefits under the G. I. Bill unless technical students are enrolled for twenty—five clock hours per week and vocational students for thirty clock hours per week. Students may enroll on request in the learning laboratory, or study hall for enough hours to make up the twenty—five or thirty hours per week if the full—time curriculum does not call for this many hours for which credit is given in class, shop, or laboratory work. The student so enrolled will be expected to follow strictly the schedule set up for him.

COURSE NUMBERING

Courses in Isothermal Community College catalogues are numbered in accordance with the North Carolina Department of Community College System.

1. All college preparatory courses are indicated by a prefix, and numbers range from 0-99.

- 2. (a) All Freshmen academic courses are indicated by a two-letter prefix and numbers ranging between 100-199.
 - (b) All sophomore academic courses are indicated by a two-letter prefix and numbers ranging between 200-299.
- 3. (a) All freshmen technical courses are indicated by a prefix, numbered between 100-199 and preceded by the letter "T".
 - (b) All sophomore technical courses are indicated by a prefix, numbered between 200-300, and preceded by the letter "T".
- 4. All vocational courses are indicated by a prefix and numbered between 1000-2000.
- 5. All adult education courses beyond the high school are indicated by a prefix and numbered 2000-3000.
- 6. All high school courses are numbered according to the North Carolina Public School course number system.

CONTACT HOURS

The contact hours shown in the catalog are minimal. It is a policy of this institution to permit students to enroll in additional subjects and laboratory work beyond those shown in the catalog in order to broaden their training.

When in any quarter the total weekly contact hours listed are fewer than twenty-five hours in a technical curriculum and fewer than thirty hours in a vocational trade curriculum, a student may enroll on request and with the approval of the institution for additional instructional hours to make up twenty-five hours per week in a technical curriculum or sufficient hours of attendance to make up thirty hours per week in a vocational trade curriculum.

EMPLOYMENT SERVICE

The college will assist students in securing parttime employment during their enrollment at Isothermal Community College and full-time employment upon graduation. Application should be made in person at the office of the Dean of Student Personnel Services.

HEALTH SERVICES

Arrangements for emergency health services are provided by the college.

ACCIDENT INSURANCE

The college assumes no responsibility for injuries or losses sustained on or off the campus by any student. For the protection of students, accident insurance is available to individuals on a voluntary basis. All students are encouraged to purchase this protection during registration. Field and other planned official college trips will be approved only when assurance is given to the Dean of Student Personnel Services that each student is covered by accident insurance.

STUDENT ORIENTATION

All freshmen and transfer students are required to attend the orientation program sponsored by the Office of the Dean of Student Personnel Services.

COLLEGE PARALLEL

DIVISION OF COLLEGE PARALLEL STUDIES

The College Parallel Division has several missions. First, it makes available in pre-planned programs of study, the first two years of college for students who intend to transfer to a senior college or university to complete a baccalaureate degree. These are called transfer programs. Second, it provides individual college courses for our out-of-school citizens who desire, for a variety of reasons, to continue their education. Finally, it provides the opportunity to study in the arts and sciences for those whose desire for such an education is satisfied by two years of less of work. The degree Associate in Arts is awarded to those who complete all requirements for that degree.

COLLEGE TRANSFER PROGRAMS.

The student who plans to transfer to a senior college or university from Isothermal Community College is advised to give careful attention to several important considerations.

- 1. The transferability of courses taken at Isothermal is determined solely by the institution to which the student transfers. Courses numbered 100 through 299 are generally accepted by senior institutions. Courses numbered below 100 are developmental studies and carry no college transfer credit.
- 2. The transferring student is responsible for meeting the entrance requirements of the senior institution at the time of transfer. A student may earn more than 90 quarter hours of academic credit, but the total number of hours accepted for transfer is determined by the senior institution to which the student transfers.
- 3. The institution to which an official transcript of credits is sent may recompute the quality point ratio and/or the credits of the student in accordance with its own grading system and calendar.

The student at Isothermal Community College will have little difficulty in completing his transfer satisfactorily if he follows these recommended steps:

- 1. Decide early which senior college to attend.
- 2. Obtain a current copy of the catalog of that college and study its entrance requirements and its suggested freshman and sophomore level courses in the student's major field.
- 3. Obtain an Isothermal Community College curriculum guide sheet in the student's major field.
- 4. Confer with his faculty adviser at Isothermal Community College about his transfer plans.
- 5. Confer with and admissions officer at the senior institution for any further information.
- 6. Check carefully at least a quarter before transfer to be sure that all necessary requirements are being met and all necessary steps are taken.

ADMISSIONS REQUIREMENTS FOR COLLEGE PARALLEL

The applicant must be a graduate of an accredited secondary high school or he must have been awarded a high school equivalency certificate.

To be considered to the admission of the College Parallel Program, the applicant must: 1. File a completed application for admission form no later than four weeks prior to the beginning of the term in which the applicant plans to register.

2. Furnish a report of physical examination completed by a physician. 3. Complete Placement Test as scheduled. 4. Have an official high school record or college transcript forwarded directly to the Isothermal Community College Admissions Office. A final copy of any (work and progress) record must be provided immediately after completion of the work.

GRADUATION REQUIREMENTS FOR ASSOCIATE OF ARTS DEGREE IN THE COLLEGE PARALLEL DIVISION

The North Carolina Community College Advisory Council has recommended a core of academic areas to be included in the curricula of all transfer students. The student is eligible for the Associate Degree when he has completed the required number of quarter hours for graduation and the minimum in each area listed below:

Communications 9 quarter hours English Composition 101, 102, 103 (required of all students)

Humanities 18 quarter hours This requirement is met by English 201, 202, 203 or the following courses:

Philosophy 101 Art 201 Music 251

Social Science
History 101, 102, 103

9 quarter hours

Mathematics

9 quarter hours

Natural Sciences 12 quarter hours Geology 101, 102, 103, or Biology 101, 102, 103, or Chemistry 101, 102, 103, or Physics 201, 202, 203

Physical Education

6 quarter hours

TUITION AND FEES

Since the school receives financial support from local, state, and federal sources, tuition is kept at a minimum. Tuition charges are set by the State Board of Education and are subject to change without notice. The tuition schedule is explained as follows:

College Transfer Programs Tuition

15 quarter hours or more less than 15 quarter hours Activity fee

\$42.00 per quarter \$ 3.00 per quarter hour \$ 5.00 per student (only if 9 or more hours are carried)

Note to Out-of-State Students: Beginning with the Summer Quarter, 1967, there will be no extra tuition charge to any out-of-state students. Isothermal Community College is receiving funds under the <u>Appalachian Programs</u> and is considered to be a Regional Institution. Therefore, an out-of-state student from South Carolina will pay the same tuition as an in-state student from North Carolina.

DESCRIPTION OF THE PROGRAMS

In the first two years of college, students secure a general education in areas of humanities, social studies, science, and mathematics; in addition, they begin specialized work in their own particular fields of interest. It is the aim of Isothermal Community College to provide quality instruction in these areas for transfer credit to senior institutions.

Isothermal Community College promotes a series of counselor-student conferences to help the student plan his program for transfer to the college or university of his choice.

GENERAL CURRICULUM

This program is designed to meet the general educational requirements of the college as well as provide sufficient electives to explore various fields of interest. All such courses are transferable to senior institutions if a grade of "C" or better was earned, and if the student has a "C" average on all work taken.

FIRST YEAR

Course

Fall Quarter

English 101....3

History 101....3

Elective.....3

17

Total Hours

Hours

Biology 101 (or) Chemistry 1014 P.Ed. 1011 Pol. Sci. 1013	Biology 102 (or) Chemistry 1024 P.Ed. 1021 Pol. Sci. 1023	Biology 103 (or) Chemistry 1034 P.Ed. 1031 Pol. Sci. 1033
Total Hours 17	Total Hours 17	Total Hours 17
SECOND YEAR		
Fall Quarter	Winter Quarter	Spring Quarter
Course Hours English 2013 Sociology 2013 Am. Hist. 2513 P.Ed. 2011 Geology 1014	Course Hours English 2023 Sociology 2023 Am. Hist. 2523 P.Ed. 2021 Geology 1024	Course Hours English 2033 Sociology 2033 Am. Hist. 2533 P.Ed. 2031 Geology 1034

Winter Quarter

English 102.....3 History 102.....3

Hours

Course

Spring Quarter

English 103.....3

History 103.....3

Elective.....3

Total Hours

Course

SUGGESTED ELECTIVES: Economics, Geography, Speech, Mathematics Health, Foreign Language.

17

Elective.....3

Total Hours

LIBERAL ARTS

The liberal arts program is designed to serve a variety of needs. The person who intends to pursue a baccalaureate major in such areas as chemistry, physics, mathematics, sociology, history, music, philosophy, or psychology may complete his first two years of work at Isothermal Community College.

College Parallel Curriculums (Continued)

FIRST YEAR

Fall Quarter	Winter Quarter	Spring Quarter
Course Hours English 1013 History 1013 Biology 101 (or) Chemistry 1014 Math 1013 Foreign Language3 P.Ed. 1011	Course Hours English 1023 History 1023 Biology 102 (or) Chemistry 1024 Math 1023 Foreign Language3 P.Ed. 1021 Total Hours 17	Course Hours English 1033 History 1033 Biology 103 (or) Chemistry 1034 Math 1033 Foreign Language3 P.Ed. 1031 Total Hours
SECOND YEAR		
Fall Quarter	Winter Quarter	Spring Quarter
Course Hours English 2013 Am. Hist. 2513 Foreign Language3 P.Ed. 2011 Geology 1014 Elective3	Course Hours English 2023 Am. Hist. 2523 Foreign Language3 P.Ed. 2021 Geology.1024 Elective3	Course Hours English 2033 Am. Hist. 2533 Foreign Language3 P.Ed. 2031 Geology 1034 Elective3
Total Hours 17	Total Hours 17	Total Hours 17

SUGGESTED ELECTIVES: Speech, Psychology, Music, Art, Mathematics, Health.

Business Administration

This program is designed for the student to transfer to a college of business administration with no loss of credit. Business majors should follow this program with some modifications depending upon their particular needs.

College Parallel Curriculums (Continued)

FIRST YEAR

Total Hours

Fall Quarter	<u>Winter Quarter</u>	Spring Quarter
Course Hours English 1013 Math 1013 History 1013 Biology 101 (or) Chemistry 1014 Pol. Sci. 1013 P.Ed. 1011	Course Hours English 1023 Math 1023 History 1023 Biology 102 (or) Chemistry 1024 Pol. Sci. 1023 P.Ed. 1021	Course Hours English 1033 Math 1033 History 1033 Biology 103 (or) Chemistry 1034 Pol. Sci. 1033 P.Ed. 1031
Total Hours 17	Total Hours 17	Total Hours 17
SECOND YEAR		
Fall Quarter	Winter Quarter	Spring Quarter
Course Hours English 2013 Economics 2013 Accounting 2013 P.Ed. 2011 Am. Hist. 2513 Elective3	Course Hours English 2023 Economics 2023 Accounting 2023 P.Ed. 2021 Am. Hist. 2523 Elective3	Course Hours English 2033 3 Economics 2033 3 Accounting 2033 1 Am. Hist. 2033 3 Elective3

SUGGESTED ELECTIVES: Mathematics, Speech, Psychology, Health Earth Science.

16 Total Hours 16 Total Hours

16

Science, Engineering or Mathematics

The following, subject to modification, is generally what most engineering and science majors need. All courses are transferable and the student should refer to the catalog of the senior college of his choice.

FIRST YEAR

Elective.....3

Total Hours

<u>Fall Quarter</u>	<u>Winter Quarter</u>	Spring Quarter
Course Hours Mathematics 1115 History 1013 English 1013 Chemistry 1014 P.Ed. 1011	Course Hours Mathematics 1125 History 1023 English 1023 Chemistry 1024 P.Ed. 1021	Course Hours Mathematics 1135 History 1033 English 1033 Chemistry 1034 P.Ed. 1031
Total Hours 16	Total Hours 16	Total Hours 16
SECOND YEAR		
Fall Quarter	Winter Quarter	Spring Quarter
Course Hours Mathematics 2115 English 2013 Physics 2014 P.Ed. 2011	Course Hours Mathematics 2125 English 2023 Physics 2024 P.Ed. 2021	Course Hours Mathematics 2135 English 2033 Physics 2034 P.Ed. 2031

SUGGESTED ELECTIVES: Earth Science, Speech, Math, Political Science, Sociology, American History, Health.

Total Hours

Elective.....3 Elective......3

Total Hours

16

COURSES OF INSTRUCTION COLLEGE TRANSFER

COURSE OUTLINES AS A SECRET OF SECRE

Accounting

BUS 201 - Principles of Accounting I

nde**r**--

Principles, techniques, and tools of accounting for understanding the mechanics of accounting - collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises; include practical application of principles learned.

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BUS 202, 203 - Principles of Accounting II

3-3

Partnership and corporation accounting including a study of payrolls and federal and state taxes with emphasis on the recording, summarizing and interpreting of data for management control rather than on bookkeeping details. Accounting services are shown as they contribute to the recognition and solution of management problems.

P. R. BUS 201.

BUS 101 - Introduction To Business

5

This course is designed to give a business freshman an introduction to the areas of accounting, business finance, economics, transportation, management, marketing. business law and business education.

BUS 102 - Beginning Typewriting (Five hours a week)

3

Students who have less than one year of typewriting experience should begin their college typewriting with this course Emphasis is placed on the typewriting keyboard and theory.

BUS 103 - Intermediate Typewriting (Five hours a week)

Students who have had one year of high school typewriting and type at a speed of 30 words a minute on a five-minute time test must begin their college typewriting with this

course. The emphasis is again placed on the typewriting keyboard and theory.

BUS 104 - Advanced Typewriting (Five hours a week)

3

Students who have had two years of typewriting will begin with this course. Study of tabulations, telegrams, memos, business letters, and legal forms. Fundamental skills are developed on duplicating machines and transcription machines.

P. R. BUS 102.

BUS 205 - Advanced Typewriting

3

Emphasis is placed on the development of individual production rates. From the knowledge the student has previously acquired in typewriting, he learns to set-up problems using his own judgment. He learns the techniques needed in planning and typing special reports for executives, applying for a job, duplicating processes, manuscripts, and legal papers.

BUS 106 - Shorthand

3

Principles of Gregg Shorthand. Presentation of theory with extensive practice in reading and writing. (Students with one year of high school shorthand will receive no credit this course.) Five meetings a week.

BUS 107 - Intermediate Shorthand

3

A review of fundamental principles, followed by assignments which stress speed, accuracy, fluency, and vocabulary. Introduction to transcription.

P. R. BUS 106 or one year of high school shorthand. Five meetings a week.

BUS 108 - Intermediate Shorthand

3

Further study of shorthand theory, acquisition of ability to take rapid dictation and transcribe accurately. P. R. BUS 104. Five meetings a week.

ART <u>20</u>1- (Survey)

An introduction to the architecture and sculpture of the pre-classic, Greek, Roman, Medieval, Renaissance, American, and contemporary periods; and the major schools of painting-Italian, Flemish, German, Spanish, Dutch, English, French and American.

ART 201 - Watercolor Painting

1

Emphasis will be placed upon the study of form and composition as the student learns to apply various methods of watercolor rendering. Two hours per week.

Drama.

DRA 101 - Literature for the Theatre

3

Survey of significant plays, both classic and contemporary.

Music

MUS 251 - Music Appreciation

. 3

A historical survey of music from its primitive beginning to the present, designed to develop a deeper understanding, appreciation, and enjoyment of music.

English

ENG 90

0

A guided studies course designed to review the fundamentals of grammar, including: spelling, punctuation, sentence structure, paragraph development, and theme writing.

ENG 95

0

A guided studies course designed to train reading proficiency through vocabulary study, use of the controlled reader, timed tests for comprehension, and phrase reading. Individualized instruction is available for a limited number.

A study of sentence structure for variety; a study of paragraph development; writing through use of exposition, naration, description, and argumentation. Writing compositions from books read and reviewed and writing from other experiences. Reviewing of books read.

ENG 102 - Freshman Composition

3

Reading and writing. Study of works of literature selected for their excellence. Reading for minute details and writing from planned observations.

ENG 103 - Freshman Composition

3

Reading, writing and speaking from assigned and selected topics. A detailed study of use of Library and Library materials for compiling a footnoted Library paper.

ENG 201 - English Literature

3

A study of outstanding writing in early times in England through the Puritan Interlude. Concentration will be made on major writings, writers, and their historical periods. Selected topics will be chosen for term papers.

ENG 202 - English Literature

3

A study of The Restoration Period, Convention and Realism, Revolution and Romance, including the major Romantic poets. The changing historical scene and the many new literary forms will be studied for understanding and appreciation. Selected topics for term papers.

ENG 203 - English Literature

3

A study of the Victorians through the present with concentration on major writings and their most outstanding literary achievements. Selected topics for term papers.

Foreign Language

FRE 101, 102, 103 - Elementary French

3.3.3

Basic elements of French in composition, reading, and conversation designed for beginning students. Students with two high school units in French are not allowed credit for this sequence.

FRE 201, 202, 203 - Intermediate French

3-3-3

Intensive review of basic grammar and vocabulary with emphasis on mastery of idiomatic forms and grammatical structure in dialogues and short stories. P. R. FRE 102 or two high sensel units and satisfactory score on placement test.

Spanish

SPA 101, 102, 102 - Elementary Spanish

Line of the state that and hopers were and to be proved the contract of the entrepublikon desagneb ara ragianisas das entario bismiros which the right spined units in Special are not different and tor this sequence.

SPA 201, 202, 203 - Intermediate Spanish

3-3-3

Sindy and practice of reading, composition, and conversable in Spanish for students with two high school units of Openiah or the equivalents P. R. SPA 102 or two high school units.

Lafe Leasure

a gazded study to developing the sindentity weathers. In the t area with comparis on Biology, Chamistry, and Physics

bi ology

BIO 101 - General Botany

An introductory study of the structure, physicalogy, repro-

duction, and taxonomy of green and non-green plants, and a survey on plant genetics and ecology.	
BIO 102 - General Zoology	4
An introductory study of animal taxonomy, morphology, physiology, and ecology.	
BIO 103 - Vertebrate Zoology	4
Principles of vertebrate anatomy, physiology, histology, embryology, classification, and homology. Origin and evolution of structures. P. R. BIO 101.	
Health and Physical Education	
P.Ed. 151 - Hygiene	3
A course designed to present basic personal health knowled and to develop proper health habits and attitudes in indi-viduals.	ge
P.Ed. Service Courses	
P.Ed. 101 - Volleyball	1
P.Ed. 102 - Badminton	1
P.Ed. 103 - Softball	1
<u>P.Ed. 201</u> - Tumbling	1
P.Ed. 202 - Folk Dancing	1
P.Ed. 203 - Square Dancing	1.
P.Ed. 204 - Social Dancing	1
Physical Science	

Chemistry

An intensive treatment of basic principles with emphasis upon atomic and molecular theory. Special attention is given to quantitative topics. Laboratory work devoted to experiments which reinforce the theoretical concepts.

CHM 103 - Chemistry (General)

4

A continuation of general chemistry with major emphasis upon stoichicmetry chemistry. Laboratory practice is separation and identification of the more common cations and anions. P. R. CHM 102 and CHM 101.

Geology

GEO 101 - Elements of Geology

2

Combines both historical and physical geology in one course and is thus intended for general information and not for students wishing to major in geology or allied sciences.

GEO 102 - Physical Geology

3

The nature and occurrence of rocks and minerals, together wit crustal features of the earth's surface. This course goes into more detail and places greater emphasis on earth phenomena than does Geology 101.

GEO 103 - Historical Geology

3

Emphasis in this course is on the stratigraphic and fossil history of the earth as found in the earth's crust together with the necessary information on both plant and animal kingdoms to trace the evolution of life down through the ages.

Physics

PHY 201 - General Physics I

ŧ

An introduction to systems of measurements, properties of

matter (solids, liquids, gases). Laboratory experiments in mass, pressure, and volume.

PHY 202 - General Physics II

4

Electron theory. Magnetism, electricity, and heat. Direct and alternating currents, series and parallel circuits. Heat temperature, and change of state. Laboratory experiments in resistance, voltage and current measurements, and magnetic and electromagnetic effects.

PHY 203 - General Physics III

4

A study of light and sound wave motion, measurements of intensity, velocities, frequencies, and qualitative analysis.

Engineering

EGR 101 - Engineering Drawing I

3

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 construction, free-hand sketching, and describing objects orthegraphically with principal views. Freehand sketching and orthegraphic reading are to be emphasized.

EGR 102 - Engineering Drawing II

3

Basically descriptive geometry: presents graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization shall be stressed on every problem.

Economics

ECO 201, 202, 203

3-3-3

A study of the present-day economic system; demand, supply, prices, and costs; wages, rent, interest and profit; business cycles, money, banking and the Federal Reserve System; international trade; and a comparison of capitalism, Socialism, Communism, and Fascism.

<u>History</u>

HIS 101, 102, 103 - World Civilizations

3-3-3

A survey of world history: ancient and medieval; early modern; nineteenth and twentieth century after Napoleon.

HIS 201, 202, 203 - History of the United States

3-3-3

A survey of the history of the United States: 1492-1840; 1840-1900: 1900 to date.

Mathematics

MAT 90 - Developmental Mathematics

GS3

An intensive review and application of basic mathematical concepts, designed for the student whose mathematical background is not strong enough to enable him to meet with success in college mathematics. This course is considered a three hour course for scheduling purposes.

MAT 99 - Solid Geometry

GS3

Theorems and problems applying to planes and lines, polyhedrons, cylinders, cones, the sphere. Required of all pre-engineering students who do not offer at entrance onehalf high school unit in solid geometry or equivalent.

MAT 101, 102, 103 - Foundation of Mathematics

3-3-3

A series of courses designed to give some insight into the nature and structure of mathematics. Topics include systems of numerations, finite mathematical systems, sets introduction to probability, a unified treatment of the basic concepts of algebra, logic, and numerical trigonometry.

and the calculus.

MAT 113, 211, 212, 213 - Analytic Geometry and the Calculus 5-5-5-5

An integrated course in the fundamentals of analytic geometry and the calculus including application of derivatives, differentials, indefinite integrals, definite integrals, equations of curves and conic sections, differentiations of transcendental functions. polar coordinates, parametric equations, theory and applications of integrations, infinite series, solid analytic geometry, partial derivatives, multiple integrals and an introduction to differential equations.

MAT 161 - Statistics (Elementary)

5

A study of fundamental statistical methods, basic statistical distributions, measures of control tendency and dispersion, statistical inference, and sampling techniques.

<u>Philosophy</u>

PHI 101 - Introduction to Philosophy

5

An introduction to the basic problems of human thought and the philosophical systems dealing with these problems as well as their historical development.

Political Science

POL 101 - Introduction to Political Science

3

An introductory analysis of the basic fundamentals and principles of political science. Theory and organizations of the state. political dynamics, and the relationship of nation among nations.

POL 201 - American National Government

3

A study of the formation and development of the national government, its organization, functions, and powers.

POL 202 - American, State and Local Government

3

A study of the organization, function, and powers of state

and	local	government	in	the	United	States.
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Social Science, and the second of the second

Education

EUD 101 - Educational Orientation

1

Required of all full-time freshmen during their first quarter at Isothermal Community College. Class meets once a week during regular class periods. The course covers the art of effective study, educational and vocational planning, use of the library, art of writing papers, and personal relations in college.

Geography

GEO 101 - Physical Geography

3

The earth's astronomical relations, factors of weather and climate, and physiographic features.

GEO 102 - World Regions

3.

Relation of human activities to the larger geographic regions of the world.

Sociology

SOC 201 - Introduction to Sociology

3

An analysis of the society and culture dealing with social organization, control, institutions, stratification, and social change.

SOC 202 - Social Problems

3

A study of the major social problems of modern society, including family disorganization, minority groups, and problems associated with industrial and urban development.

P. R. SOC 201

SOC 203 - Sociology of the Family

3

Study of the American family with attention given to court-

ship, marriage, family relationships and interdependencies, and social cultural stresses emerging from contemporary family life.

P. R. SOC 201

TECHNICAL DIVISION



THE TECHNICAL DIVISION

Courses offered in the Technical Division are designed to meet the increasing demand in industry for high level industrial skills. The technician is a person whose chief interests and activities lie in the direction of testing, developing, and applying the operation of engineering and scientific processes. The student will be exposed to such activities as drafting and design, installation and operation of equipment, estimating, and sales. The technical curriculum requires two years for completion. The curriculum is similar to professional engineering but briefer and more technical in content.

Students choosing to enter a technical program must meet educational and aptitude requirements applicable to the individual course of their choosing. Students must have a well-rounded educational background in mathematics and science and possess adult maturity with a general aptitude for this advanced type of training.

Isothermal Community College endeavors to meet the needs of the people in the area by offering a two year technical curriculum geared to train a person in specific technical areas.

An Associate in Applied Science Degree is awarded upon completion of one of the following programs.

PROGRAMS OF STUDY

Business Administration Executive Secretary Legal Secretary Medical Secretary Electronics Technology

ADMISSION REQUIREMENTS -- TECHNICAL PROGRAM

Requirements for admission of a candidate to the regular two-year technology program include the following qualifications:

- 1. Must be a high school graduate or have a state approved equivalency certificate.
- 2. Should have high school credit for two units of mathematics, one of which is in algebra and the other in plane geometry, or an equivalent in modern mathematics. Competence may be determined by appropriate tests. Those who fail to meet the accepted standards for technical mathematics will be required to successfully complete a prerequisite mathematics course to remove the deficiency. A student with deficiencies may be admitted only when there is a strong indication of probable success.
- 3. Should have completed one unit of physical science with laboratory.
- 4. Must submit the transcripts of high school and post-high school education.
- 5. Must demonstrate aptitude for technical training as determined by standard tests. These tests will aid in student selection, placement, and guidance. Institutional guidance and counseling will be available to the student throughout his education, not just at the time of his enrollment.
- 6. Must be in good physical and mental health. A medical examination is required for full-time students.
- 7. Must have an interview with a designated representative for discussing enrollment plans and lifetime career goals.

Application forms for admission to the technical division may be obtained from the Admissions Office.

EXPENSES

Expenses are kept to a minimum and consist of a tuition fee and the cost of textbooks and supplies which will vary in price with the course pursued.

All fees are payable in advance by the quarter or by the course. The following fees are required of all students enrolled in the Curriculum Program:

Tuition (
Full-	-time.	 	 	0 9 6	0 D G	 0 e c	.\$32,00
							.\$ 2.50

REQUIREMENTS FOR GRADUATION WITH AN ASSOCIATE OF APPLIED SCIENCE DEGREE

- 1. A minimum of 108 quarter hours credit.
- 2. A minimum of 18 quarter hours in the areas of English, Social Science, and Humanities, and not less than three (3) quarter hours in each field.
- 3. A student may be exempt from one area upon the approval of the Director of Guidance. (In such a case, the total number of hours would not be reduced but concentrated in the remaining two areas.)

BUSINESS ADMINISTRATION

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this state, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. 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: (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 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 management trainee. The dutie and responsibilities of this graduate vary in different firms. These duties 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; manufacturing; and communications.

BUSINESS TECHNOLOGY

BUSINESS ADMINISTRATION

	,	Course Title	Hours Class	Per Week Lab.	Quarter Hours Credit
FIRST	QUAR!	TER			
T-ENG T-MAT T-BUS T-ECO T-BUS	110 101 102	Grammar Business Mathematics Introduction to Business Economics Typewriting or Elective	3 5 5 3 2 18	0 0 0 0 3	3 5 3 3
SECONI	QUAI	RTER		•	
T-ENG T-BUS T-BUS T-ECO T-BUS	120 115 104	Composition Accounting Business Law Economics Business Finance	3 5 3 3 3	0 2 0 0 0	3 6 3 3 3 18
THIRD	QUART	TER			
T-ENG T-BUS T-BUS T-BUS T-BUS	121 116 110	Report Writing Accounting Business Law Office Machines Business Finance	3 5 3 2 3	0 2 0 2 0	3 6 3 3

FOURTH QUARTER

Elective

T-BUS 232 T-BUS 239	Oral Communication Sales Development Marketing Introduction to Data Processing Elective	3 3 5	0 0 0	3 3 5
T-EDP 104		3 3 17	2 0 2	4 3 18
FIFTH QUAR	TER			
T-BUS 243 T-BUS 235	Business Communication Advertising Business Management Applied Psychology Elective	3 3 3 3 15	0 2 0 0 0	3 4 3 3 3 16
SIXTH QUAR	TER			
	Taxes Office Management Principle of Supervision Social Science Elective	3 3 3	2 0 0 0	4 3 3 3

18



EXECUTIVE SECRETARY

Almost 11 million people were employed in clerical or some closely related type of work in 1965. More than two million of these were employed in occupations requiring stenographic skills. In fact, more individuals are employed in the clerical fields than in any other category.

A very rapid increase in employment in the late 1960's and early 1970's is anticipated. Openings may total more than 200,000 annually. Local employment opportunities parallel national trends.

The Executive Secretary curriculum is designed to develop the necessary secretarial skills in typing, dictation, transcription, operation of office machines, 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 may be employed as a stenographer or a secretary as well as in a variety of other clerical occupations. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, handling numerous routine duties, private and confidential records, and a variety of business details on her own initiative. Positions are available in a variety of businesses such as insurance companies, banks, marketing institutions, financial firms, as well as all types of manufacturing firms.

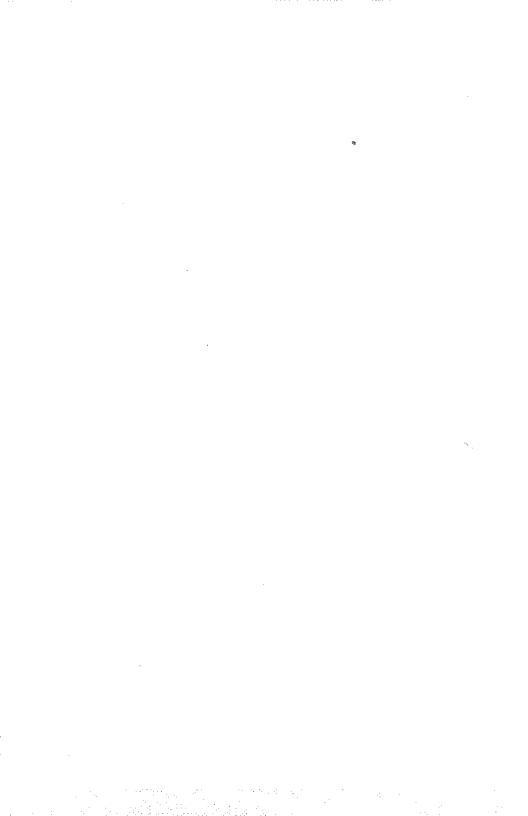
BUSINESS TECHNOLOGY

EXECUTIVE SECRETARY WITH LEGAL AND MEDICAL OPTIONS

	Course Title	Hours Per	Week	Quarter Hours Credit
T-ENG 101 T-MAT 110	Grammar Business Mathematics	3 5	0	3 5
T-BUS 101 T-BUS 102 T-BUS 106	Introduction to Business Typewriting or Elective Shorthand or Elective	3 5 2 3 18	0 3 2 5	5 5 3 4 20
SECOND QUA	RTER			
T-ENG 102 T-BUS 103 T-BUS 107 T-BUS 120 T-BUS 115	Composition Typewriting or Elective Shorthand Accounting Business Law	3 2 3 5 3 16	0 3 2 2 0 7	3 4 6 3 19
THIRD QUAR	TER			
T-ENG 103 T-BUS 104 T-BUS 108 T-BUS 112 T-BUS 110	Report Writing Typewriting Shorthand Filing Office Machines	3 2 3 3 2 13	0 3 2 0 2 7	3 4 3 3 16

FOURTH QUARTER

T-ENG 204 T-BUS 204	Oral Communications Advanced Typewriting	3 2	0 3	3 3
T-BUS 206E	Dictation and Transcription	3	2	4
T-EDP 104	Introduction to Data Processing	3	2	L
T-BUS 211	Office Machines	3 2 13	2 2 9	4 <u>3</u> 17
	·	15	9	17
FIFTH QUART	ER			
T-ENG 206	Business Communication	3	0	3
T-BUS 207E	Dictation and Transcription	3	2	L.
T-BUS 214	Secretarial Procedures	3 3 6	2	L.
T-PSY 206	Applied Psychology	3	0	3 6
	Elective	6	Q	6
		18	L.	20
SIXTH QUART	ER			
T-BUS 208E	Dictation and Transcription	3	2	1.
T-BUS 271	Office Management	3 3 6	õ	4 3 3 6
	Social Science Elective	3	O	3
water the party of the initiation and the last t	Elective	6	0_	_6_



ELECTRONICS TECHNOLOGY

The field of electronics has developed at a tremendously rapid pace, especially since 1940. For many years the major concern of electronics was in the area of communications Developments during and following World War II have revolutionized production techniques. Completely new industries have been established to supplement the need and demand for electronics equipment. This rapid growth of the electronics industry has been accompanied by an equally phenomenal growth in the demand for qualified technicians—both men and women.

This program provides a basic background in electronics theory and practical applications for business and industry. The electronics technician may start in one or more of the following areas: research, design, development, production, maintenance, or sales. He may be an engineering assistant, a laboratory technician, supervisor, or equipment specialist.

Upon completion of this program, students will find employment opportunities in such fields as radio and television production, radar, sonar, telemetering, and other forms of communication such as telephone; industrial and medical measuring, recording, indicating, and controlling devices; navigational equipment; missile and spacecraft guidance; electronic computers; and other types of equipment using vacuum tubes, transistors, and semiconductor circuits.

Engineering Technology

ELECTRONICS

		Course Title	Hours Pe	r Week Lab.	Quarter Hours Credit
		ACTIVITIES OF THE STATE OF THE	<u> </u>		
FIRST	QUAR'.	ER			
T-ENG T-MAT T-PHY	101	Grammar Technical Mathematics Physics: Properties of	3 5	0	3 5
T-DFT	101	Matter Technical Drafting	3 0	2 6	Д 2
T-ELC	TOT	1 Fundamentals of Electricity	<u>4</u> 15	12	<u>6</u> 20
SECONI	QUAI	RTER			
	102	Composition Technical Mathematics	3 5	0 0	3 5
Т-РНҮ	102	Physics: Work, Energy Power	3 0	2 6	4 2
T-DFT T-ELC		Technical Drafting Fundamentals of	0	6	2
1 ELO	102	Electricity	15	12	<u>6</u> 20
THIRD	QUAR'	rer			
T-ENG T-MAT T-ELN	103	Report Writing Technical Mathematics Electronics Instruments	3 5	0 0	3 5
		and Measurements	1	6	3
T-ELN	105	Control Devices	<u>5</u> 16	<u>4</u> 10	18

FOURTH QUARTER

T-ENG 2 T-MAT 2 T-PHY	201 104	Ol Technical Mathematics O4 Physics: Light and Sound	3 5 3	0 0 2	3 5 4
T-ELN 2	205 .	Applications of Vacuum Tubes and Transistors	<u>5</u> 16	<u>6</u> 8	7 19
FIFTH (QUARI	PER			
T-EIN 2	210	Social Science Elective Semiconductor Circuit	3	0	3
		Analysis	5	3	6
T-ELN	214	Wave Shaping and Pulse Circuits Elective	2	3	3
42-hours Death But Street, Springer			10	6	<u>3</u> 15
SIXTH	QUART	TER .			
וו דבו או	77.5	Social Science Elective	3	0	3
T-ELN		Wave Shaping and Pulse Circuits	2 ·	3	3
T-ELN	220	Electronic Systems Elective	5	4	7
e			10	7	16

COURSES OF INSTRUCTION

TECHNICAL DIVISION

English

<u>T-ENG 101</u> - Grammar

3

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: None

T-ENG 102 - Composition

3

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition. Prerequisite: T-ENG 101

T-ENG 103 - Report Writing

3

The fundamentals of English are utilized as a background for the organizations and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum.

Prerequisite: T-ENG 102

<u>T-ENG 204</u> - Oral Communication

3

A study of basic concepts and principles of oral communications to enable the students to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory

to correct speaking habits and to produce effective oral presentation. Particular attention is given to conducting meetings, conferences, and interviews.

T-ENG 206 - Business Communication

3

Develops skills in techniques in writing business communications. Emphasis is placed on writing action—getting sales letters and prospectuses. Business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances, and inquiry.

Prerequisite: T-ENG 102

Business Administration

<u>T-BUS 102</u> - Typewriting

3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None

T-BUS 103 - Typewriting

3

Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques.

These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms.

Prerequisite: T-BUS 102 or the equivalent. Speed requirement 30 words per minute for five minutes.

T-BUS 104 - Typewriting

3

Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms.

Prerequisite: T-BUS 103 or the equivalent. Speed requirement, 40 words per minute for five minutes.

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts and legal documents.

Prerequisite: T-BUS 104. Speed requirement. 50 words per minute for five minutes.

T-BUS 206E - Dictation and Transcription

4

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material. Prerequisite: T-BUS 108

T-BUS 207E - Dictation and Transcription

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Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.

Prerequisite: T-BUS 206

T-BUS 208E - Dictation and Transcription

4

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.

Prerequisite: T-BUS 207E

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.

Prerequisite: None

T-BUS 106 - 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

T-BUS 107 - Shorthand

4

Continued study of theory with greater emphasis on dictation and elementary transcription.

Prerequisite: T-BUS 106 or the equivalent

T-BUS 108 - Shorthand

L

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription.

Prerequisite: T-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, and calculator.

Prerequisite: None

T-BUS 211 - Office Machines

Instruction in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictating and transcribing machines.

Prerequisite: T-BUS 110.

T-BUS 112 - Filing

Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal Filing.

Prerequisite: None

T-BUS 214 - Secretarial Procedures

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.

Prerequisite: None

T-BUS 271 - Office Management

Presents the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems. Prerequisite: None

<u>T-BUS 115</u> - Business Law

A general course designed to acquaint the student with certs fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

Prerequisite: None

<u>T-BUS 116</u> - Business Law

Includes the study of laws pertaining to bailments, sales, riskbearing, partnership-corporation, mortgages, and property rights.

Prerequisite: T-BUS 115

T-BUS 120 - Accounting

Principles, techniques and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises, to include practical application of the principles learned.

Prerequisite: T-MAT 110

T-BUS 121 - Accounting - Accoun

Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on record keeping, summarizing and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems. Prerequisite: T-BUS 120

T-BUS 272 - Principles of Supervision

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing and effective work force and the role of the supervisor. Methods of supervision are stressed.

T-BUS 235 - Business Management

Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision-making function versus the operating function. Role of management in business—qualifications and requirements.

Prerequisite: None to the state of the state

T-BUS 229 - Taxes

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.

Prerequisite: T-BUS 121

61

T-BUS 243 - Advertising

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals; product and market research; selection of media; means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media. Prerequisite: None

T-BUS 239 - Marketing

5

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in the marketing process.

T-BUS 232 - Sales Development

3

A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.

Prerequisite: None

T-BUS 123 - Business Finance

3

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing.

Prerequisite: None

T-BUS 124 - Business Finance

3

Financing, federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies.

Prerequisite: T-BUS 123

Economics

T-ECO 102 - Economics

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.

Prerequisite: None

T-ECO 104 - Economics

Greater depth in principles of economics, including a penetration into the composition and pricing of national out-

4

put, distribution of income, international trade and finance, and current economic problems.

Prerequisite: T-ECO 102

DATA PROCESSING SYSTEM

T-EDP 104 - Introduction to Data Processing Systems

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.

Prerequisite: None

MATHEMATICS

T-MAT 110 - Business Mathematics

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discounts, commissions, taxes, and pertinent uses of mathematics in the field of business.

Prerequisite: None

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.

T-MAT 102 - Technical Mathematics

5

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

Prerequisite: T-MAT 101.

T-MAT 103 - Technical Mathematics

5

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 201 - Technical Mathematics

5

A continuation of T-MAT 103. More advanced concepts of differentiation and integration are considered. Included are graphs and derivatives of the trigonometric functions, exponential and logarithmic differentiation and integration, advanced integration techniques, polar equations, parametric equations, and Fourier series.

Prerequisite: T-MAT 103.

PHYSICS

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

4

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-MAT 101, T-PHY 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.

Prerequisite: T-MAT 101, T-PHY 101

DRAFTING

T-DFT 101 - Technical Drafting

2

The study of technical drafting is drawing principles and practices for print reading and describing objects in 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

T-DFT 102 - Technical Drafting

2

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 Standard Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.

Prerequisite: T-DFT 101

ELECTRICITY

<u>T-ELC 101</u> - Fundamentals of Electricity

6

Elementary principles of electricity including: basic electric units, Ohms law, Kirchhoffs law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive and capacitive networks.

Prerequisite: None

Series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power supply analysis, introduction to non-linear resistive control devices and introduction to electro-mechanical devices.

Prerequisite: T-ELC 101

ELECTRONICS

T-ELN 101 - Electronic Instruments and Measurements

3

A study of basic electronic instruments, their theory of operation, function, tolerances, and calibration. Both service and laboratory instruments will be studied. Laboratory experience will provide application of each type instrument studied.

Prerequisite: T-ELC 102

<u>T-ELN 105</u> - Control Devices

7

A study in depth of the electrical characteristics of vacuum tubes and transistory. Basic parameters and applications of each type device to the three configurations of a three terminal two port system will be included.

Prerequisite: T-ELC 102

T-ELN 205 - Applications of Vacuum Tubes and Transistors 6

Practical applications of vacuum tubes and transistory to amplifiers, radio frequency amplifiers, detectors, modulators and oscillators.

Prerequisite: T-ELN 105

T-ELN 210 - Semiconductor Circuit Analysis

6

A study in some depth of the analysis and design of transisto circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiarities and limitations pertinent to reliable operation are considered. H. Y. Z. and T. parameters are employed as well as signal-flow graphs.

Prerequisite: T-ELN 105

Broadband amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, clipper and clamper circuits.

Prerequisites: T-ELN 105, T-MAT 103

T-ELN 215 - Wave Shaping and Pulse Circuits

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Pulse techniques, diode switches, gates, step-counters, restorers and other specific circuits which function as switches.

A block diagram course breakingshing numerous electrosic

Prerequisite: T-ELN 214

T ELM 220 - Electronic Systems

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systems. Modules or blocks of various discuity already obtained are armanged in vasious same as to produce complex electronic equitous. Cyclosus will be explained and reduced to functions and then to block disposus. All, FM, and Circle Discussion in the condition of the second continued multiplication of the second testing to the second testing contract required to be considered.

Corequisite: T-ELW 215

FUNCTIVES

T-89S 183E - Terminology and Vocabulary

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To desclop an uniterstanding of the tanning type of volkatalary appropriate to the course of shidy, on the same in business, technical, and professional office. Prerequisite: T-EUS 107

6

Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems. Prerequisite: T-BUS 120

T-BUS 215E - Office Application

6

During the sixth quarter only, students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study. Prerequisite: T-BUS 214, T-BUS 205, T-BUS 208, T-BUS 211

<u>T-BUS 116</u> - Business Law

3

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights.

Prerequisite: T-BUS 115

T-BUS 247 - Business Insurance

2

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included.

Prerequisite: None

T-BUS 219 - Credit Procedures and Problems

3

Principles and practices in the extension of credit; collection procedures; laws pertaining to credit extension and collection are included.

Prerequisite: T-BUS 120

Designed to aid the student in developing a "use understanding" of accounting records, reports and financial statements. Interpretation, analysis, and utilization of accounting statements.

Prerequisite: T-BUS 121

T-BUS 233 - Personnel Management

3

Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.

Prerequisite: None

T-BUS 245 - Retailing

3

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends.

Prerequisite: None

T-BUS 237 - Wholesaling

3

The development of wholesaling; present day trends in the United States. A study of the functions of wholesaling. Prerequisite: None

T-BUS 266 - Budget and Record Keeping

3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning.

Prerequisite: T-BUS 121

3

A study of the powers, policies, methods, and procedures used by the various federal, state and local administrative agencies in promoting and regulating business enterprises. It includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action.

Prerequisite: T-BUS 116

T-PSY 112 - Personality Development

3

Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.

Prerequisite: None

T-ECO 102 - Economics

3

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.

Prerequisite: None

T-SSC 201 - Social Science

3

An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology.

Prerequisite: None

T-SSC 202 - Social Science

2

A further study of social sciences with emphasis on economic political science, and social problems as the relate to the individual.

Prerequisite: T-SSC 201

A study of the effect of American social, economic, and political institutions 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

T-POL 201 - United States Government

3

A study of government with emphasis on basic concepts, structure, powers, procedures and problems.

Prerequisite: None

T-ECO 108 - Consumer Economics

3

Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and to understand better the economy in which he lives.

Prerequisite: None

T-ELN 225 - Transmission and Propagation

3

An introduction to the electromagnetic radiation, principles of antenna, radiation patterns and field strength. The characteristics and use of transmission lines in radio frequency application. Factors involved in propagation, ground waves, reflections, sky waves, atmospheric effects, ionosphere, fading, noise, static, wire radiatiors, directive gain, effect of ground, impedence, antenna systems and arrays.

Prerequisite: T-ELN 105 Corerequisite: T-ELN 205

T-FLN 227 - UHF and Microwave Systems

7

A study of UHF and components, circuits, and measurement techniques. The use of distributed constant elements.

waveguides and coacial cables, microwave links, high frequency oscillators, magnetrons, klystrons, traveling wave tubes. An introduction to the use of the Smith Chart. Prerequisite: T-ELN 225

<u>T-ELN 230</u> - Television Systems

7

A study of the principles of television including the television system, camera tubes, scanning and synchronization, composite video signal, receiver circuits, transmitting equipment, color television, and closed-loop systems. Corequisite: T-ELN 214

<u>T-ELN 235</u> - Industrial Instrumentation

7

Broad introduction to use of industrial electro-mechanical and electronic circuits and equipment. Provides an understanding of the methods, techniques, and skills required for installation, service and operation of a variety of industrial control systems. Analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light electricity, the associated circuitry and indicating and recording devices.

Prerequisites: T-ELN 205, T-PHY 104

T-ELN 240 - Digital Computers

3

An exploration into the methodology of counting and computing Various computer techniques will be investigated including: non-sinusoidal waveforms, binary and decade counters, industrial counters, readout devices, logic circuits, arithmetic circuits, storage devices, input-output devices, computer control, analog and digital converters.

Prerequisite: T-ELN 214

<u>T-ELN 245</u> - Electronic Design Project

2

Students are required to design and construct a project approved by the instructor. Includes selection of project, design, construction, and testing of completed project. Projects may include: AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple count-

rs, lasers, masers, etc. rerequisite: T-ELN 205

ELC 210 - Rotating Devices

3

ntroduction to electrical machinery. AC and DC motor and enerator principles, synchros and servomechanisms, alterators and dynamotors, Ward-Leonard and amplidyne control ystems will be analyzed. A general knowledge of the theory, peration, and maintenance of these devices and systems will e stressed.

rerequisite: T-ELC 102, T-PHY 102

-CHM 101 - Chemistry

5

tudy of the physical and chemical properties of substances, hemical changes; elements, compounds, gases, chemical comminations; weights and measurements; theory of metals; acids, ases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates; electrochemistry, electrolytes, and electrolysis in their application of chemistry to industance.

rerequisite: T-MAT 101

EDP 104 - Introduction to Electronic Data Processing Systems

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study of the fundamental concepts and operational principles of data processing system. They are presented as an id in developing a basic knowledge of computers as a precquisite to the detail study of a particular system. This course also provides a general knowledge of computing systems and is a prerequisite for all programming courses. Prerequisite: None

-MAT 208 - Calculus and Laplace Transforms for Electronics

An investigation of the methods of calculus which are of the most direct use in the study of electronic circuits. Introduction to selected topics from differential equations and Laplace transforms and applications of these methods to the solution of electronic circuit problems.

Prerequisite: T-MAT 201 Corequisite: T-ELN 214

<u>T-MEC 110</u> - Fundamental Mechanisms

A study of the purpose and actions of cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, lever and other mechanical devices used to transmit or control signals.

Prerequisite: T-PHY 102

Prerequisite: None

T-PSY 206 - Applied Psychology

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

VOCATIONAL DIVISION

THE VOCATIONAL DIVISION

In an ever changing world of engineering and technologies, one must not lose sight of the growing need for skilled craftsmen. Isothermal Community College offers a series of training courses in the trade division with emphasis on manipulative and mental skills applicable to a particular course for which a student is enrolled. Trade courses require from nine months to one full year on a full-time basis.

A diploma is awarded at the completion of a program.

PROGRAMS OF STUDY

Automotive Mechanics
Electrical Installation & Maintenance
Welding
Drafting
Masonry
Automotive Body Repair

ADMISSION REQUIREMENTS

A candidate for admission to the regular tradevocational training programs must meet the following qualifications:

- 1. Must be at least 18 years of age or a high school graduate and have the ability to enter into or make advancement in the area in which enrolled.
- 2. Must demonstrate aptitude for trade-vocational training as determined by standard and/or local institution tests.
- 3. Must have a personal interview with designated school representative.
- 4. Must be in good physical and mental health. A medical examination is required of all full-time students.

EXPENSES

Expenses are kept to a minimum and consist of a tuition fee and the cost of textbooks and supplies. The cost of textbooks and supplies will vary with the course pursued.

All fees are payable in advance by the quarter or by the course. The following fees are required of all students enrolled in the Curriculum Program:

Tuition (
Full-t	ime.					 0 2 5	 	\$32.00
Part-t	ime	(per	${\tt credit}$	hour))	 	 	\$ 2.50

POWER MECHANICS

AUTOMOTIVE

PURPOSE OF CURRICULUM

This Curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair or adjust automotive vehicles. Manual skills are developed in practical shop work. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice.

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, buses and a variety of gasoline-powered equi ment. 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.

JOB DESCRIPTION

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline—powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications.

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. For example, some may specialize in repairing only power steering and power brakes or automatic transmissions. Usually such specialists have an all-round knowledge of automotive repair and may occasionally be called upon to do other types of work.

VOCATIONAL DIVISION

Automotiv	<u>re Mechanics</u>	Hours	Per	Week	Quarter
		Class		Lab.	Hours
Course Ti	<u>tle</u>		$\circ \mathbf{r}$	Shop	Credit
FIRST QUA	RTER				
PME 1101	0			12	7
MAT 1101 DFT 1101	Fundamentals of Mathematics Schematics and Diagrams:	35		0	5
		0		3	1
PHY 1101	Power Mechanics	<u>.3</u> 11		3 2 17	$\frac{4}{17}$.
SECOND QU	JARTER			-	
PME 1102	Engine Electrical and Fuel Systems	E		12	۵
ENG 1102	Communication Skills			0	. 3
	Reading Improvement	2		0	2
PHY 1102		<u>.3</u> 13		$\frac{2}{14}$	9 3 2 <u>4</u> 18
THIRD QUA	ARTER				
AUT 1123	Automotive Chassis and	2		0	
AUT 1121	Suspensions Systems Braking Systems			3	6
PSY 1101	<u> </u>			ó	3
AHR 1101				3	, 3
WLD 1101	Basic Gas Welding	<u>.0</u> 11		3 0 3 18	4 3 1 17
FOURTH QU	JARTER				
AUT 1124	Automotive Power Train	2		C	٨
AUT 1125	SystemsAutomotive Servicing			9	6
	Small Business Operations.			<u>ó</u> 18	3 15

ELECTRICAL INSTALLATION AND MAINTENANCE

PURPOSE OF CURRICULUM

The rapid expansion of the national economy and the increasing development of new electrical products are providing a growing need for qualified people to install and maintain electrical equipment. Today more than 350,000 are 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 total requirements for electrical tradesmen are 500,000 and will be 700,000 by 1970. 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 large 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.

JOB DESCRIPTION AND REQUIREMENTS

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 relate to wiring install—ations, 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 back—ground to be able to advance through experience and additional training through upgrading courses offered in the center.

Electrical Installation and Maintenance

			Hours	Per	Week	Quarter Hours
FIRST	r Quar	TER	Class		Lab.	Credit
MAT]	1115	Direct and Alternating Current Electrical Math Applied Science	5		12 0 2 14	9 5 <u>4</u> 18
SECO	ND QUA	RTER				
	1113	Reading Improvement	2		0	2
DFT I	1110	and Controls	3 .		12	9
ENG I PHY I	1102	Communication Skills Applied Science	3		3 0 2 17	1 3 <u>4</u> 19
THIRI	D QUAR	TER				
ELN I PSY I	1118 1101	Residential Wiring Industrial Electronics Human Relations Blueprint Reading: Electrical	3		9 6 0	8 5 3 17
FOUR:	TH QUA				1 .	
ELN I	1119	Commercial and Industrial Wiring	3		12 6 0 18	9 5 3 17

INDUSTRIAL OCCUPATIONS

WELDING

PURPOSE OF CURRICULUM -

This curriculum was developed to fill the tremendous need for welders in North Carolina. The recently completed Manpower Survey shows 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 and metals industry.

Welding offers a person 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.

JOB DESCRIPTION

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 technique 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.

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	Hours Per	Week	Quarter Hours
FIRST QUARTER	Class	L a b.	Credit
WLD 1120 Oxyacetylene Welding and Cutting	1600 1010	alta. Seggior	or yadan Diyagan
PAT 1101 Fundamentals of Mathematics DFT 1104 Blueprint Reading: Mechanic	s5 cal0	ا 0 ع	
PHY 1101 Applied ScienceENG 1101 Reading Improvement	<u>.2</u>	0	4 2
andra de la companya de la companya Esperimenta de la companya de la co	13	$\overline{17}$	19
SECOND QUARTER	es sete nave. Talius la avece		
WLD 1121 Arc Welding MAT 1103 Geometry DFT 1117 Blueprint Reading: Welding. PHY 1102 Applied Science ENG 1102 Communication Skills	0	12 0 3 2	7 3 1 4
ENG 1102 Communication Skills	<u>.3</u> 12	<u>0</u> 17	<u>3</u> 18
THIRD QUARTER		i visi vik	
WLD 1124 Pipe Welding	3 1	12 3	7 2
InspectionDFT 1118 Pattern Development and		3	2
SketchingPSY 1101 Human Relations	0 3	3 0 21	1 3 15
FOURTH QUARTER	i arki kibi Gota kana		
WLD 1122 Commercial and Industrial Practices	3	9	6
WLD 1125 Certification Practices WEC 1112 Machine Shop Processes BUS 1105 Industrial Organizations	0	6 0 21	5 2 3 16

MECHANICAL DRAFTING

PURPOSE OF CURRICULUM

This curriculum is designed to prepare students to enter the field of drafting. The first three quarters of study include courses basic to all fields of drafting. The fourth quarter involves specialization and related courses that prepare one to enter any one of several drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the fiel of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrative architects, engineers, skilled workmen—and must be able to communicate effectively with them. Courses to devel knowledge and skills in communication, human relations, economics and industrial organization are provided to assist the student in developing understanding and confidence in his relations with other persons.

JOB DESCRIPTION

Draftsmen prepare clear, complete, and accurate working plans and detail drawings from rough or detailed sketches or notes according to the specified dimensions. They make final sketches of the proposed drawing, checking dimensions of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. They make any adjustments or changes necessary or desired. Draftsmen ink in all lines and letters on pencil drawings as required. They exercise manual skill in the manipulation of the triangle, T-Square, and other drafting tools. They utilize their knowledge of various machines engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

Mechanical Drafting WEST 100050 001000 00100000

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FIRS	ST QUAI	RTER	Class	Lab.	Credit
MAT ENG	1103	Drafting		an Mark Ordan Strant Geography	3 2 4
SECO		RTER said selection is discovered by Europe			
DFT MAT ENG PHY	1122 1125 1102 1102 1102	Drafting Descriptive Geometry Algebra Communication Skills Applied Science	3	6 1 6 6 14 6 14 6 14 6 14 6 14 6 14 6 1	5 3 5 3 4 20
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MAT PSY	1131 1104 1101 1113 1115	Trigonometry	3 3 2 s2	12	7 3 3 3 19
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DFT VEC VEC	1132 1114 1116 1105	Mechanical Drafting Shop Processes Treatment of Non-Ferrous Metals	· · · 3 · · · 2 · · · <u>· 3</u>		ΣΩΡΟΣ ΤΟ Δ 10 3 63+ 3 . ΣΩ ΣΩ 262 3 0-20 263 23 0-21

BUILDING CONSTRUCTION TRADES

MASONRY

PURPOSE OF CURRICULUM

Masons are the craftsmen in the building trades that work with artificial stone, brick, concrete masonry units, stone and the like. As building construction continues to increase the demand for bricklayers, cement masons, and stonemasons will also increase.

This curriculum 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 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 are found with contractors in new building construction. However, a substantial proportion of masons are self-employed and work with contractors doing repair, alteration, or modernization work.

JOB DESCRIPTION

Most masons lay brick, and blocks made of tile, concrete, glass, 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 the masonry trade along with leadership training, it is possible for the tradesman to become a foreman, inspector and eventually a contractor.

Masonry

			Hours	Per	Week	Quarter Hours
FIRS	T QUAR	TER	Class	The Asia Parketon and Parketon	Lab.	Credit
TAM	1101	Bricklaying	35		15 0	10 5
	alpatente V	Building Trades	10		3 18	$\frac{1}{16}$
SECO	ND QUA	RTER				
		Bricklaying	5		15	10
	1111	Mathematics			O	3
eer av	inconstructive des	Sketching	<u>o</u>		3 18	
THIR	D QUAR	TER				
MAS	1113	General Masonry			15 3	10
134° T		Sketching	<u>०</u>		<u>3</u> 21	<u>1</u>

AUTOMOTIVE BODY REPAIR

PURPOSE OF CURRICULUM

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal and the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies as changes are made from year to year.

JOB DESCRIPTION

Automotive body repairmen inspect and estimate the amount of materials and labor necessary to repair automobile bodies. They straighten twisted metal, replace parts, smooth, and paint. The body repairman must know how to straighten, bend, and weld metal (both electric and acetylene). He must be a master painter and know how to mix paint as well as apply it. The body repairman must be familiar with body repair manuals for all makes of cars and other technical publications.

Automotive body repairmen in some large shops specialize in particular types of work such as painting, fender work, etc. but in most small shops he is required to do all types of work.

Automotive Body Repair

			<u>Per Week</u>	Quarter Hours
FIRST QUA	RTER	Class	Lab.	Credit
AUT 1111 MAT 1161 PHY 1101 ENG 1101 WLD 1101	Auto Body Repair Fundamentals of Mathematics Applied Science Reading Improvement Basic Gas Welding	s5 3 2	12 0 2 0 3 17	7 5 4 2 <u>1</u> 19
SECOND QUA	ARTER			
AUT 1112 WLD 1105 DFT 1101	Auto Body Repair Auto Body Welding Schematics and Diagrams:	0	12 3	7 1
PHY 1102 ENG 1102	Power Mechanics	3	3 2 <u>0</u> 20	1 4 3 16
THIRD QUAI	RTER			
AUT 1113 PSY 1101 AUT 1115	Metal Finishing and Painting Human Relations Trim, Glass & Radiator		12	7 3
1101 1111	Repair	<u>2</u> 8	$\frac{9}{21}$	<u>5</u> 15
FOURTH QUA	ARTER			
AUT 1114 BUS 1103	Body Shop Applications Small Business Operations.	3 <u>3</u>	21 0 21	10 <u>3</u> 13

EXTENSION

SDT 2421

The purpose of the Extension Program is to provide additional training in job improvement for the people in the area. Training of any type, which will improve individual job proficiency may be offered when sufficient interest is shown.

The following is a list of some of the different courses offered in the Extension Program:

Supervisory Development Training

SDT 2401 Principles of Supervision SDT 2402 Human Relations I SDT 2403 Human Relations II SDT 2404 Art of Motivating People SDT 2405 Economics in Business and Industry SDT 2406 Effective Communications SDT 2407 Effective Writing SDT 2408 Effective Speaking SDT 2409 Reading Improvement SDT 2410 Work Measurement SDT 2411 Job Methods SDT 2412 Conference Leadership SDT 2413 Instructor Training SDT 2414 Creative Thinking Industrial Safety and Accident Prevention SDT 2415 SDT 2416 Industrial First Aid SDT 2417 The Supervisor in North Carolina SDT 2418 The Supervisor and Employee Benefits SDT 2419 Job Analysis Training SDT 2420 Cost Accounting

Supervision in Hospitals

(continued)

TREMANSHIP TRAINING

TIP 2501 Introduction to Firefighting TP 2502 Forcible Entry TIP 2503 Rope Practices TIP 2504 Portable Fire Extinguishers IP 2505 Ladder Practices IP 2506 Hose Practices IP 2507 Salvage and Overhaul Practices

IP 2508 Fire Stream Practices

'IP 2509 Fire Apparatus Practices

IP 2510 Ventilation

IP 2511 Rescue Practices

IP 2512 Protective Breathing Equipment

TP 2513 Firefighting Procedures

PGRADING COURSES

HR 2454 Air Conditioning HR 2455 Refrigeration

UT 2457 Automatic Transmission UT 2458 Alternators

UT 2459 Generators and Starters

OL 2565 Police Training

IV 2473 Estimating Building Construction Costs FT 2480 Drafting

FT 2479 Blueprint Reading

LC 2484 Basic Electricity

LC 2485 National Electrical Code

IOS 2529 Hospitality

Masonry AS 2531

UR 2535 Nurses Assistant

UR 2536 Personal Care and Family Aide

UR 2537 Infant and Child Care

EX 2553 Loom Fixing

EX 2554 Industrial Power Sewing

EX 2555 Textile Designing

PH 2561 Upholstering

LD 2563 Welding



ADULT EDUCATION

Basic Adult

High School Equivalency

Arts & Crafts

Self-Improvement

Community Service

Learning Laboratory

ADULT EDUCATION

The purpose of the Adult Education Program at Isothermal Community College is to provide the opportunity for adults to enrich their lives by offering the facilities for continuing education. Through this program if it is hoped that the individual will be more conscious of his role and obligation in the community, to better prepare him for his job in life, to stimulate creativity, to help the individual appreciate the creative efforts of others, and to provide amonues for the enrichment of leisure time.

The Adult Program consists of the following types of courses

- (1) BASIC ADULT EDUCATION—a program designed to help individuals learn to read and write and to help early dropouts attain an eighth grade education.
- (2) <u>HIGH SCHOOL EQUIVALENCY PROGRAM</u>——a program design ed to enable adults to complete their high school education by preparing for the test that leads to the North Carolina Certificate.
- (3) ARTS AND CRAFTS—programs that give adults the opportunity to develop their creative talents.
- (4) <u>SELF-IMPROVEMENT COURSES</u>—designed to enable individuals to improve themselves by continuing education during leisure time.
- (5) COMMUNITY SERVICE PROGRAMS—consists of lectures, exhibits, shows, and other cultural functions for community enrichment.

THE LEARNING LABORATORY—This facility offers the opportunity for learning, based on programmed materials. The student studies at his own convenience and at his own speed. He may bursue topics of his own choice and for his own personal satisfaction.

The laboratory is also used for remedial purposes. The grade level starts at the fourth grade and extends through the freshman year of college. There are some areas of study that extends into the junior and senior years.

The public is invited to visit the laboratory anytime between 10:00 A.M. and 9:30 P.M. Monday through Thursday. It is located in the education building of the Spencer Baptist Church in Spindale.

To be eligible for adult classes, a person must be 18 years old or a high school graduate. For additional information, contact the Adult Education Department at the College.

A partial list of the courses that will be offered in the Adult Education Program is below. This list will be altered as new needs arise.

IND 2100 Interior Decorating I IND 2100 Interior Decorating II HAT 2101 Hat Designing I

HAT 2101 Hat Designing II

RUG 2101 Rug Knotting

CAK 2105 Cake Decorating

CER 2106 Ceramics I

CER 2106 Ceramics II

PBS 2107 Public Speaking

OIL 2108 Oil Painting

SPD 2109 Speed Reading

DRA 2112 Dramatics

STN 2118 Stenoscript

SEW 2120 Sewing I

SEW 2120 Sewing II

SEW 2120 Sewing III

(continued)

KNT 2123 Knitting I
KNT 2123 Knitting II
FLO 2125 Floral Arts
SKT 2126 Sketching
TYP 2127 Typing
ART 2129 Art Appreciation
COM 2130 Communism





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