1970

Scioto County Technical College catalog 1970

Scioto County Technical College

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ADMINISTRATIVE STAFF

FRANK C. TAYLOR
President
B.S., Wilmington College
M.A., Marshall University

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Vice-President
B.S., Concord College
M.A., Marshall University

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M.A., Marshall University

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B.S., Morehead State University

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M.A., Eastern Kentucky University

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Counselor
B.S., University of Kentucky

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M.A., Marshall University

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B.S., Indiana State Teachers College

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M.A., Louisiana State University

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B.S., University of Kentucky

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M.A., Marshall University

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M.S.C.E., University of Dayton

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Department Chairman
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M.A.T., Miami University

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Instructor, Retail Mid-Management
M.A., Akron University

CHARLES IRWIN
Instructor, Electrical Engineering
B.S.E.E., Ohio University

M.A., Eastern Kentucky University
The Scioto County Technical Institute is directed by a Board of Trustees. Two members were appointed by the Governor of Ohio on March 11, 1970. Three trustees were appointed by the Portsmouth City Board of Education on February 24, 1970, and two trustees were appointed by the Scioto County Board of Education on February 21, 1970.

**TECHNICAL INSTITUTE BOARD OF TRUSTEES**

Orville Ferguson  
Term Expires - April 2, 1971

Robert L. Stevens, Vice Chairman  
Term Expires - April 2, 1971

Carl W. Clark  
Term Expires - April 2, 1972

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Term Expires - April 2, 1972

William Nichols, DDS  
Term Expires - April 2, 1972

Walter N. Brown, Chairman  
Term Expires - April 2, 1973

Victor Morgan  
Term Expires - April 2, 1973
ACCREDITATIONS

Scioto County Technical Institute is approved by the following accrediting agencies:

- Ohio Board of Regents
- Ohio State Department of Education
- Veterans Administration
- Bureau of Vocational Rehabilitation
- Social Security Department

Application for accreditation has been filed with:

- North Central Association of Colleges & Universities
- U. S. Office of Education

ADMINISTRATIVE STAFF

Frank C. Taylor ......................................................... President
B. S. Wilmington College, M. A. Marshall University

Tom F. Foti ......................................................... Director
B. S. Concord College, M. A. Marshall University

Arnold McCoy ......................................................... Director of Student Services
B. S. Ohio University, M. A. Marshall University

B. J. Marshall ......................................................... Director of Business Affairs
B. S. Morehead State University
HOW FAR CAN YOU GO WITHOUT FOUR YEARS OF COLLEGE?

A lot of people think that careers are meant for college graduates -- jobs are for everybody else.

Ten years ago, they may have had a point.

But something's happened recently to change all that. A revolution in science and technology.

You've seen men orbit the moon -- heard of heart transplants -- read of planes that will cross the Atlantic in just two hours. Every field of science has had a comparable breakthrough.

What does all this have to do with you? Simply this.

The scientific and technological revolution is creating career opportunities -- literally by the millions. The demand for people with technical skills is growing twice as fast as for any other group, while jobs for the untrained are rapidly disappearing. There aren't enough applicants to fill technical positions open now. Yet the U. S. government estimates well over 1,000,000 more will open by 1975.

If you have a good scientific or technical education, you're all but guaranteed work. Exciting, meaningful work -- at double the salary of the average high school graduate.

And you no longer need four years of college to start out on a scientific or technical career.

You can break into any field -- from medicine to computers to engineering to the space program -- with only two years of education. Just become a technician.

WHAT IS A TECHNICIAN?

Roughly speaking, technicians are people who work directly with scientists, engineers and other professionals in every field of science and technology.

Technicians' duties vary greatly, depending on their field of specialization. But in general, the scientist or engineer does the theoretical work. And the technician translates theory into action.

The best-known technicians right now are probably the ones who work with computers. But there are many other kinds.

NO MATTER WHAT KIND OF TECHNICIAN YOU DECIDE TO BE.

You're all but guaranteed work: There aren't enough people to fill the technical positions open now -- yet well over 1,000,000 more will open in the next few years.

You'll have a meaningful career -- not an ordinary job. Technicians are at work right now on every advanced project -- from the space program to 4th-generation computers to cancer research. You'll have interesting work -- and the knowledge that you're responsible for building the world of tomorrow.

With two short years of schooling -- you can make double the salary of the average high school graduate. Technicians make $120 - $200 a week right out of school. And you just might double that salary within five years. Start planning for a technical career today.

ADMISSION PROCEDURES

An application for admission may be submitted after completion of the junior year of high school. The prospective student should write to the Admissions Office for the necessary application forms. The applicant is responsible for the following:

Application
Completing and returning the formal application for admission. A non-refundable fee of $10 must accompany the application.

High School Transcript
Filling in Section I of the High School Transcript Request Form and submitting it to a high school counselor or the high school administrative office for completion of Section II. The request form and the transcript should be returned to the Scioto County Technical College Office by the high school.

College Transcript
A college transcript is required of all applicants who have attended other colleges, universities, or institutes.

Admissions Test
The American College Test (ACT) is highly recommended of all applicants.

Interviews
Interviews are required of all applicants for programs that include internship employment. In addition, counselors are available to any applicant desiring help in selection of a technology. The Counseling Office is open to visitors Monday through Friday 8:00 a.m. to 4:00 p.m. except holidays.

Registration
Approval of the application for admission issued by the Admissions Office after the applicant has completed the requirements stated above. After receiving a letter of acceptance, the student indicates his understanding of the policies and regulations of the Institute and his intent to enroll by submitting the $25 payment toward first quarter tuition. This payment completes his registration.

Fee Payment
Before the beginning of each quarter the student receives a fee card which indicates instructional fees and all charges due. All fees should be paid before the first day of classes.

RE-ADMISSION

A student whose work at the Scioto County Technical College has been interrupted should write to the Admissions Office for the necessary forms several weeks before the beginning of the quarter for which re-admission is desired. He must file transcripts of any college work taken after separation from the College if he has not been enrolled during the previous two years.

ADMISSION BY TRANSFER

Any student who is in good standing or who holds an academic dismissal from another accredited institution may apply for admission to the Scioto County Technical College. This student must follow the application procedures outlined above. In addition he must submit an official transcript from the previous school. Official evaluation for transfer credit is made when requested, after the application for admission is completed. Only courses with grades of C or better are considered for transfer.

VETERANS’ TRAINING

Veterans are considered as full-time students when they have enrolled for 14 or more quarter hours.
POLICIES AND PROCEDURES

Student Grade Reports

Grades are reported at the end of each quarter. The report is mailed to the parents, guardian, husband, or wife of a student under 21 years of age. The report of a student 21 years or older is mailed directly to the student. Grades are held in the Business Office for students who have not cleared all financial obligations.

Grading System

At the close of the quarter and upon completion of a course, the instructor reports a letter grade indicating the quality of a student's work. Points for each quarter of credit earned are assigned according to the following system.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Grade</th>
<th>Points</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>Good</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>Average</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>Poor</td>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>Failing</td>
<td>E</td>
<td>0</td>
</tr>
<tr>
<td>Incomplete</td>
<td>I</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawal Passing</td>
<td>WP</td>
<td>0</td>
</tr>
<tr>
<td>Withdrawal Failing</td>
<td>WF</td>
<td>0</td>
</tr>
<tr>
<td>Transfer Credit</td>
<td>K</td>
<td>0</td>
</tr>
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</table>

INCOMPLETE - When circumstances beyond the control of a student or an instructor prevent the completion of course requirements during a quarter, an I (Incomplete) is recorded until the final grade is established. The Incomplete is indicated only when the student has arranged with the instructor the specific procedures for fulfilling the requirements. The work must be completed within 6 weeks after the beginning of the next quarter. Otherwise a grade of E is recorded.

TRANSFER CREDIT - To receive credit for a course taken at another institution, a student must submit to a counselor a petition requesting such credit. The petition must be presented before the beginning of the quarter in which the course is required. It must be accompanied by a valid transcript showing a minimum grade of C and an official description of the course for which transfer credit is desired.

WITHDRAWAL - From the first through the twentieth class day of a quarter a student may withdraw from a class or the College if he has completed the official withdrawal form in the Dean of Admissions Office.

A WP recorded as the grade for a course indicates withdrawal in good standing. WF recorded as the grade for a course indicates withdrawal in poor standing.

FAILED COURSES - A student must repeat a course which he has failed in order to graduate. Grades for both the initial and second registrations are counted in computing the student's grade point average. The student must follow the schedule adjustment procedure to repeat a course.

If a student ceases to attend a course or courses without following the withdrawal procedure, a grade of E is recorded for each of these courses.
GENERAL POLICIES

Student Citizenship
The general policy of the Scioto County College Institute favors as few rules and regulations as are necessary to be consistent with its educational purposes. Students are expected to act as responsible adults at all times. This expectation includes the honest performance of all work, regular class attendance, proper respect for others, prompt payment of debts, observance of law, and respect for property.

Disciplinary Probation
A student who violates Scioto County Technical College policies may be placed on disciplinary probation or dismissed. Disorderly, dishonest, and immoral conduct are grounds for probation or immediate dismissal. In a technology which includes employment internship, good standing with the cooperating employer is expected, and is essential to continuation in the program.

Class Attendance
Students are expected to attend all classes. If a student has excessive unexcused absences during the quarter and has not officially withdrawn, he receives an E in that course. Additional attendance policies may be defined by each technology or instructor.

Smoking
Smoking, foods, beverages will be confined to the student lounge area only.

Counseling
The counselor endeavors to help students determine the educational and vocational goals consistent with their aptitudes and interests. Assistance is available to students with personal, academic or financial problems.

Housing
An approved list of residential homes having housing facilities for Technical College students is available in the Director's office.

Bookstore
All books and supplies used in classrooms and laboratories may be purchased from the Scioto County Technical College Bookstore.

Library and Resource Center
The Scioto County Technical College Library and Resource Center contains books and periodicals supplementary to all courses offered at the College. Books may be used in the library and may be signed out for limited periods of time.

Lounge and Snack Bar
Eating facilities, located in the student lounge, provide coin-operated food machines. Cafeteria facilities for noon meals will be available at vocational school.

Faculty Office Hours
Faculty of the College maintain office hours which permit them to confer with students concerning assignments and methods of study, and to review test results and other measures of academic achievement. It is the responsibility of each student to consult instructors when the need arises and to complete work missed while absent.

Parking
Parking space is available to all students. Students are requested to park in the area designated for student parking.

Student Placement
Placement service will be available to students planning to graduate. Students will have the opportunity to talk with representatives of several companies of their choice. An additional list of part-time employment will also be available.

Financial Aid
Financial assistance is available at the College. Information concerning this and other monetary aid, such as federally sponsored student loans, may be obtained from the office of the Director of Student Services.
FINANCES AND FEES

Estimate of Academic Expenses for the Freshman Year
(Resident Student)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Application Fee</td>
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<td>450.00</td>
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<td>General Fee</td>
<td>75.00</td>
</tr>
<tr>
<td>Books and Supplies (Approximate)</td>
<td>60.00</td>
</tr>
<tr>
<td>Total for three quarters</td>
<td>$595.00</td>
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</tbody>
</table>

A student in attendance four quarters per year pays approximately $165.00 in additional fees.

Because the Scioto County Technical College is assisted by legislative appropriations, fees which the student pays constitute only a fraction of the actual cost of his education. Fees are paid as part of the student's registration before the first day of classes designated in the Institute calendar. Students should have sufficient funds to cover enrollment fees and plans for financial support while enrolled in the institute. A bank's refusal to honor a check automatically cancels both registration and receipts issued by a student by the College, and results in the assessment of a $10 penalty. The College reserves the right to change any fee with proper notification.

**Instructional Fee**
A fee of $150 is charged each quarter for 12-18 hours or more. The fee for 11 credit hours is $10 per hour.

**Laboratory Fee**
Laboratory fees are charged for consumable materials used by students. The fee charged varies with each laboratory course.

**General Fee**
The general fee will be applied to the expense incurred by the Institute in its counseling, placement, and health services, as well as student activities.

**Graduation Fee**
To defray the expense of clothing, materials, and facilities a fee of approximately $15 is charged for graduation ceremonies.

**Transcripts**
Students' academic records are filed in the Admissions Office. A fee of one dollar ($1.00) is charged for each copy issued.

**Surcharge Fee**
A student whose legal residence is not within the state of Ohio is classified as an out-of-state student and is subject to the non-resident fee, and an additional $150 per quarter out-of-state fee.

**Return of Fees on Withdrawal**
Application, testing, and registration fees are returned only when programs are cancelled. Other fees are refundable in accordance with the following schedule:

A. First through 5th day of classes—full fees less $10.
B. Sixth through 10th day—50% of tuition.
C. Tenth through 20th day—25% of tuition.
D. Twenty-first day to the end of the quarter—no refund.
E. Laboratory fees and student activity fees are not refundable after the 5th day.
F. If fees are paid under mistake of law or fact, then they are refundable in full.
ACCOUNTING TECHNOLOGY

Accounting Technology is designed to give the student a strong background in accounting concepts and principles and experiences in the application of the theory he learns. Emphasis will be placed on the use of modern electronic accounting and calculating machines. The accounting student will be trained to apply his accounting skills in the field of data processing and computers. Accounting students will get "hand on" experience on the computer and will graduate with a "major" in accounting and sufficient courses in data processing to consider this a "minor."

JOB OPPORTUNITIES

Positions available in Accounting Technology:

Accountant, Machine Processing - Coordinates mechanized accounting operations and confers with management and other department heads to adapt accounting and other record-keeping systems to machine accounting processes.

Junior Accountant - Accountant who verifies additions, checks, audits, postings, and vouchers, analyzes accounts, and prepares statements, etc.

Accountant - Applies principles of accounting to install and maintain operations of general accounting system.

A graduate may gain employment in government agencies, public accounting, business and industry, as industrial accountants, public accountants or bookkeepers for universities, foundations, schools and other institutions.
ACCOUNTING TECHNOLOGY

1st Quarter

101 - Communication Skills I
Training in reading and listening, with emphasis on comprehension of printed material, and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in the various technologies.

150 - Business Math I
Proficiency in the fundamental skills of mathematics as applied to business. Emphasis will be placed on payroll procedures, business and financial reports, presentation of business data, and computing of interest for money and banking.

156 - Introduction to Business
A broad concept of business and the development of an awareness of the economic framework which constitutes our capitalistic system.

AC201 - Accounting I
Introduction to fundamental accounting concepts and the procedures. The accounting cycle: nature of accounts and techniques of recording, classifying, summarizing and analyzing basic financial data. Application of fundamental accounting techniques to partnerships and corporations. Accounting for the formation, operation, and dissolution of business enterprises.

DP301 - Computerized Unit Record I
Introduction to the theory of punch card equipment. Exercises in interpreting, reproducing, collating, and basic accounting machine functions, together with utility program use.

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and essay.

DP302 - Computerized Unit Record II
Introduction to report-program generating techniques which are used in a variety of problem-solving applications typically encountered in business and industry.

EC404 - Typewriting I
Introduction to typewriter operation and keyboard technique. Application of these fundamentals in arranging simple letters, tables, forms, and reports. Development of skills to an average speed of 30 words per minute.

EC415 - Business and Office Relations
Basic principles of office management as applied in both the small and large office; functions of the office manager; organization of the office; office layout; manuals and reports; office procedures work measurement; office forms, and budgeting control.

AC202 - Accounting II
Application of fundamental accounting techniques for cash, long term investments, notes and accounts, inventory methods, plant and equipment, liabilities. Introduction to manufacturing operations, cost methods and management's need of cost data.
5th Quarter

121 - Psychology
Study of the behavior of the individual in terms of maturation, learning, thinking, emotions, perception, motivation, and individual differences.

125 - Principles of Economics II
Micro-economics: price determination in various product and resource markets; demand-supply, elasticity, profit maximization and general cost analysis. Current domestic economic problems and policies. International economics: history, institutions, and theory of international trade; foreign exchange; balance of payments; the underdeveloped countries; the Soviet economic challenge.

AC210 - Systems Accounting
Developing, organizing, and using accounting data, analyzing and improving accounting systems, systems reviews, flow process charting, structural flow charting, internal check, internal control, forms and paper flow analysis.

AC205 - Intermediate Accounting II
Continuation of Intermediate Accounting I, including techniques for review and analysis of financial statements. Cash and funds-flow analysis and reporting.

AC207 - Cost Accounting II
Estimating, planning, and controlling the costs of processes and projects. Standard cost accounting procedures and the analysis of variances? cost and profit responsibility reporting to management. Uses of cost and profit data in project selection, product pricing, and other functions of management.

6th Quarter

EC418 - Business Organization and Management
Formal and informal organizational structures including line and staff relationships indicating authority and responsibility.

106 - Speech I
Public speaking employing principles of effective oral communication in a variety of practical speaking situations.

AC208 - Tax Accounting
Current income tax law and regulations related to business and individual income tax reporting. Practice in preparation of tax returns of businesses and individuals.

AC213 - Credit and Finance
Forms of business organization; corporate securities; financing through securities; sources and management of working capital; administration of income; expansion and combination; reorganization receivership, and dissolution.

AC211 - Auditing
Independent and internal audits, professional ethics, legal liability, internal control, auditing standards, and procedures. Evidential matter, the auditor's approach and techniques, reports, statistical sampling, advisory services to management.

AC209 - Government Accounting
Basic concepts of fund accounting systems and procedures used by governments and most non-profit institutions, and the collection, processing, and interpretation of financial transactions data of these organizations.
### DATA PROCESSING AND COMPUTER TECHNOLOGY

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<th>Subject Name</th>
<th>Code</th>
<th>Class Hours</th>
<th>Lab Hours</th>
<th>Credit Hours</th>
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<tr>
<td>Communication Skills I</td>
<td>G</td>
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<td>4</td>
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3rd Quarter

103 - Communication Skills III
A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

DP313 - Data Math III
Matrix solutions of linear simultaneous systems. Linear programming solutions by graphing, algebraic, matrix and simplex methods. Series, sequences, arithmetic and geometric progressions, summations.

DP304 - Basic Computer Concepts
Fundamental knowledge of what computers are and what role they play in modern technology. Computers and programming systems in general.

DP303 - Computerized Unit Record III
Continuation of Computerized Unit Record I and II.

4th Quarter

105 - Technical Writing
Forms and procedures for making technical reports. Practice in writing technical papers, memos, business letters, and establishment of patterns for reports required at school or in industry.

122 - Principles of Sociology
An analysis of the relationship of the individual and the group to social institutions. The cultural background of American civilization. Collective behavior, human ecology, and social change are studied. Emphasis on the social effects of modern technology and the adjustments of man to his culture.

154 - Business Law I
Introduction to major points of business law, based principally on Uniform Commercial Code; consideration of Uniform Acts relating to specific legal areas. Contracts, agency and employment, negotiable instruments, personal property, and bailments.

EC416 - Business Statistics
Basic techniques relating to organization of business and economic data and derivation of calculations therefrom. Analysis and interpretation of the results of statistical summaries, comparisons, etc. Statistical descriptions involving use of averages, relatives, and dispersion. Tests relating to significance, probability, sampling, and quality control applications of statistics. Trend analysis and correlation.

DP305 - Systems Programming and Lab I
Further development of basic computer concepts and techniques of programming, including solution of business problems.
EXECUTIVE SECRETARIAL TECHNOLOGY

Secretaries are essential to business, industry, government, and the professions.

The demands for good secretaries far exceed the supply; thus, the education in this field provides many opportunities to work in pleasant, attractive surroundings performing interesting tasks for appreciative people.

As the name of the program implies, the executive secretary must have all the usual secretarial skills plus the ability to make decisions and aid in the implementation of management plans and policies. The basic secretarial skills are learned in the classroom and laboratories of the Technical Institute under the tutelage of competent instructors. The same instructors, experienced in business and industry, help develop the insight, knowledge, and skills necessary for the smooth and effective operations of office management.

JOB OPPORTUNITIES

Positions available in the Executive Secretarial Technology are:

**Legal Secretary** - Prepares legal papers and correspondence of legal nature, such as summonses, complaints, motions, and subpoenas. Takes dictation in legal terminology.

**Medical Secretary** - Prepares medical charts and reports for doctors or hospital personnel, utilizing knowledge of medical terminology. Takes dictation in medical terminology.

**School Secretary** - Evaluates academic records and maintains personnel data on school employees, compiles budget estimates, prepares reports, and performs other related duties.

**Engineering Secretary** - Must take dictation in scientific terminology. Prepares statistical reports and technical reports.

**Executive Secretary** - Have a high degree of stenographic speed and accuracy. Responsible for supervision of other clerical personnel. Usually handles all types of correspondence and handles private and confidential reports.

**Administrative Secretary** - Keeps official corporate records and executes administrative policies determined by or in conjunction with other officials. Prepares memorandums outlining and explaining administrative procedures and policies to supervising workers.

There are advancement possibilities after several years of experience. The secretarial technician can advance to the highest position in the secretarial field. She serves as an administrator of the entire clerical department of an organization, or as the private secretary to the president of a corporation.
EXECUTIVE SECRETARIAL TECHNOLOGY

1st Quarter

101 - Communication Skills I
Training in reading and listening, with emphasis on retention and comprehension of printed material, and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in various technologies.

AC201 - Accounting I
Introduction to fundamental accounting concepts and procedures. The accounting cycle: nature of accounts and techniques of recording, classifying, summarizing, and analyzing basic financial data. Application of fundamental accounting techniques to partnerships and corporations. Accounting for the formation, operation, and dissolution of business enterprises.

150 - Business Mathematics I
Proficiency in the fundamental skills of mathematics as applied to business. Emphasis will be placed on payroll procedures, business and financial reports, presentation of business data, and computing of interest for money and banking.

EC404 - Typing I
A study of the touch system of typewriting with an emphasis on the development of speed and accuracy. (Students entering the program with a basic skill of at least 40 words per minute will substitute a course from a related technology.)

EC401 - Shorthand I
A study of manual stenography introducing the student to basic shorthand theory emphasizing phonetics, word families, brief forms and phrases, and penmanship. (Students entering the program with a basic skill of 60 words per minute will substitute a course from a related technology.)

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and essay.

AC202 - Accounting II
Application of fundamental accounting techniques for cash, long term investments, notes and accounts, inventory methods, plant and equipment, liabilities. Introduction to manufacturing operations, cost methods and management's need of cost data.

EC405 - Typing II
An application of typewriting with emphasis on the development of speed and accuracy and the mastery of correct typing techniques used in making tabulations; typing manuscripts, correspondence, and business forms; and preparation of materials for various forms of office duplication.

EC402 - Shorthand II
A continuation of Shorthand I designed to perfect shorthand theory, phonetics, word families, brief forms and phrases, and penmanship with practice for speed and accuracy on wireless shorthand laboratory facilities.

156 - Introduction to Business
A broad concept of business and the development of an awareness of the economic framework which constitutes our capitalistic system.
6th Quarter

124 - Principles of Economics I
Introduction to American capitalism; basic economic concepts, including elementary demand-supply and price system analysis. Macroeconomics: national income analysis, employment theory, inflation, business cycle, fiscal policy; American economic growth. Money: role of money, the institutions and functions of the American banking system, monetary policy.

106 - Speech I
Public speaking employing principles of effective oral communication in a variety of practical speaking situations.

RM505 - Personnel Management
The philosophy, principles, and methods of personnel management; organizational structure, areas of responsibility and authority, policy making, procurement and placement, training, evaluation, wage and salary administration and benefit programs.

EC410 - Secretarial Practices II
A continuation of Secretarial Practices I with further use of integrated skills by extensive use of practice sets and including selection, purchase, and inventory of supplies.

121 - Psychology
Study of the behavior of the individual in terms of maturation, learning, thinking, emotions, perception, motivation, and individual differences.

7th Quarter

125 - Principles of Economics II
Micro-economics: price determination in various product and resource markets; demand-supply elasticity, profit maximization and general cost analysis. Current domestic economic problems and policies. International economics; history, institutions, and theory of international trade; foreign exchange; balance of payments; the underdeveloped countries; the Soviet economic challenge.

123 - Human Behavior
A basis for the consideration of human behavior problems and an understanding of oneself. Psychological principles and techniques in present-day industry. Analysis of modern socio-industrial society.

126 - Government and Business
A study of the economics of American industry and its interrelationships with American government including a survey of comparative economic systems.

EC411 - Special Problems in Dictation, Transcription, and Typing
Concentration on individual needs for improving typing competence and acquisition of the ability to transcribe dictation into accurate grammatical copy. Dictation, including terminology from medicine, law, engineering, insurance, and education. Transcription from dictating machines.

EC412 - High-Speed Dictation
A course designed to perfect the student's shorthand skill to rates from 100 to 140 words per minute through the extensive use of the wireless shorthand laboratory and related materials including intensive practice on all types of voice recording and transcription machines, and techniques employed in conference and court reporting with an introduction to machine stenography.

EC413 - Office Procedures and Techniques
A study of the fundamental principles and practices used to expedite office work including office organization and management, office location layout, and equipment, and design and control of office procedures.
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3rd Quarter

106 - Speech I
Public speaking employing principles of effective oral communication in a variety of practical speaking situations.

103 - Communication Skills III
A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

RM503 - Principles of Management
A realistic approach to the principles and practices of management.

RM506 - Wholesaling
A study of the development of wholesaling; the management of a wholesale enterprise including locating, financing, organization, inventory control, and warehousing; and technological changes and their impact upon traditional methods of wholesaling.

RM504 - Salesmanship I
A study of selling, including preparation for selling, sales processes, and an introduction to sales management.

4th Quarter

RM509 - Retail Internship I
Supervised on-the-job application of knowledge and skills acquired in the classroom.

RM510 - Special Problems in Retailing I
The first of two courses in which the student applies his practical knowledge of retailing to specific areas of his job and submits reports to his coordinator-supervisor.

5th Quarter

107 - Speech II
A concentrated study of conference types, methods, and techniques through examination of theory and practical student application of the principles including the extensive use of audio-visual equipment in oral presentations.

104 - Communication Skills IV
Emphasis on business communication skills, including business letters and business forms. Telephone techniques, business etiquette, and oral and written reports.

154 - Business Law I
Introduction to major points of business law, based principally on Uniform Commercial Code; consideration of Uniform Acts relating to specific legal areas: Contracts, agency and employment, negotiable instruments, personal property, and bailments.

RM505 - Personal Development
A study of business office behavior and etiquette, personal hygiene and office attire, refinement of oral communications with emphasis on conference forms, leadership, and techniques.

RM502 - Sales Promotion
A study of the various sales-promotion activities, including advertising, retail display and the coordination of an effective sales-promotion program.
FOOD SERVICE ADMINISTRATION TECHNOLOGY

Already one of the largest industries in the number of people employed, food service is expanding as the demands of the population increase. Today one dollar out of every four spent for food is spent for food consumed away from home. The trend is growing.

The food service technician works under a professionally qualified dietitian or dietary consultant and confers with him regarding operating problems, nutrition, food service, and modified diets.

The food service technician must possess a thorough knowledge of food preparation and service and must exhibit the ability to direct work activities of others.

Food services are obligated to provide patrons with wholesome, palatable, and nutritious food, pleasantly served and supplied at the allotted cost. The technician is responsible for adherence to all regulations governing the preparation and service of food. His work includes instruction and supervision of food service employees in order to maintain high standards of sanitation, housekeeping and safety; supervision of the operation and care of equipment; menu planning and food purchasing; and record keeping and cost control.

JOB OPPORTUNITIES

Positions available for graduate technicians in food technology:

Assistant to the Dietitian - Assist the dietitian in food service programs in hospitals, schools, restaurants, and other public or private institutions.

Food Service Supervisor or Technician - Trains and supervises employees engaged in serving food in hospitals, nursing homes, school or college food service departments and similar institutions and in maintaining cleanliness of food service areas and equipment.

Steward - Supervises and coordinates activities of kitchen and dining-room workers to insure that food is served promptly.

Manager, Cafeteria or Lunchroom - Directs and coordinates activities of workers engaged in furnishing cafeteria services to insure an efficient and profitable enterprise. Purchase or requisition food. Confers with chef in planning menus.

Manager, Catering - (Hotel & Restaurant) Coordinates activities of workers engaged in serving food to patrons of hotel dining room or restaurant, and plans and arranges for banquets and other social functions.

Other positions are available to the graduate technician after several years of experience. Advancement to higher level supervisory positions to cover supervision of larger areas, more complex functions, and a greater number of employees.
FOOD SERVICE ADMINISTRATION TECHNOLOGY

1st Quarter

101 - Communication Skills I
- Training in reading and listening, with emphasis on retention and comprehension of printed material, and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in the various technologies.

150 - Business Mathematics
- Proficiency in the fundamental skills of mathematics as applied to business. Emphasis will be placed on payroll procedures, business and financial reports, presentation of business data, and computing of interest for money and banking.

124 - Principles of Economics I
- Introduction to American capitalism: basic economic concepts, including elementary demand-supply and price system analysis. Macro-economics: national income analysis, employment theory, inflation, business cycle, fiscal policy; American economic growth. Money: role of money, the institutions and functions of the American banking system, monetary policy.

117 - Basic Inorganic Chemistry

FS614 - Survey of Food Service Industry
- An introductory course in the management of restaurants and institutional food services. The purpose of the course is to present the student an overview of the entire food service industry, and to develop the skills, abilities, and interests necessary to insure success. The following areas are covered: restaurant, hospital, school, nursing home, industry, and dormitory. Field trips provide a general background of the organization, operation and management.

2nd Quarter

102 - Communication Skills II
- A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and essay.

118 - Introduction to Organic Chemistry
- A course in fundamental organic chemistry. The study of carbon compounds; aliphatic hydrocarbons, alcohols, ethers, aldehydes, ketones, organic acids, esters, amines, and aromatic compounds. An introduction to carbohydrates, lipids, and proteins. Related laboratory.

FS610 - Food Preparation I
- A laboratory course in basic food preparation designed to give students an understanding of skills and knowledge required in food preparation. The course includes: use of standardized recipes; quantity recipes; working with garnishes, sandwiches, cheese cookery, egg cookery, short order preparation, leftovers, preparation and use of fruits and vegetables, poultry, seafood, desserts. Safety and sanitation are studied.

FS613 - Food Service Equipment I
- A study of equipment that is vital to the successful operation of a restaurant facility. Mechanical equipment: food preparation machines and cleaning equipment. Cooking equipment: dry heat, fryers, steam. Serving equipment: counter, hot and cold food equipment. Refrigeration equipment.

3rd Quarter

103 - Communication Skills III
- A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

FS611 - Food Preparation II
7th Quarter

122 - Principles of Sociology
An analysis of the relationship of the individual and the group to social institutions. The cultural background of American civilization. Collective behavior, human ecology, and social change are studied. Emphasis on the social effects of modern technology and the adjustments of man to his culture.

FS606 - Laboratory Experience I
Participation in actual working situations requiring 24 hours per week on varying shifts in affiliated hospital food services for patients and personnel. This supervised experience is designed to provide practical application of principles learned. Two hours per week of formal class at the hospital supplements on-the-job training to acquaint the student with organizational procedures and assignments are made according to need as indicated by the discussions. Student performance is rated jointly by the supervisor at the affiliated institution and by the Institute coordinator.

FS605 - Diet Therapy
Emphasis on ways in which variations in caloric content, consistency and nutrient composition may be employed to meet individual dietary requirements. Related medical terminology and abbreviations are studied. Special diet meals prepared and tasted.

FS609 - Techniques in Supervision
Supervisory techniques applied to food service management. The use of job descriptions, job procedures, reports, schedules, oral and written directions, and conference leadership. Methods of instruction effective in teaching and motivating food service employees.
## Subject Name

### 1st Quarter

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3rd Quarter

103 - Communication Skills III
A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

110 - Technical Mathematics III
A continuation of Technical Mathematics II to include plane and solid analytic geometry. The study includes the straight line, circle and conic sections. Algebraic methods are applied to the study of curves and surfaces in three-dimensional space.

WO754 - Park Protection
Study of laws pertaining to parks and recreation areas, managers' responsibilities, law enforcement, crowd control techniques, control of vandalism. Public safety.

WO755 - Water Pollution
The study of the interdependency of discipline in evaluating water quality. Tests and measurements used in water quality evaluation will be performed in the Chemistry and Physics Laboratories. The ability and knowledge to analyze findings and results will be applied.

CE701 - Surveying I
Surveying and its applications; the surveying method; setting up the transit; use of the transit, turning angles, prolongation of a straight line, etc.; setting up the level; running circuits of levels, horizontal measurement; tape corrections, keeping field notes, adjustment and cleaning of transit and level.

4th Quarter

WO769 - Supervised Work Experience
Eleven weeks' supervised work experience. Supervisory visits by instructor. Weekly seminars for critique of experience. Weekly evaluation reports. 15 hours credit.

5th Quarter

106 - Speech I
Public speaking employing principles of effective oral communication in a variety of practical speaking situations.

122 - Principles of Sociology
An analysis of the relationship of the individual and the group to social institutions. The cultural background of American civilization. Collective behavior, human ecology, and social change. Emphasis on the social effects of modern technology and the adjustments of man to his culture. Introduction to leisure.

WO756 - Marina and Water Development Areas
Field trips will be taken to determine the best location for water and marina development. Layouts will be prepared by student for development of these areas, also cost of construction, equipment needed, and future maintenance of marina and water areas.

WO757 - Boating, Boating Laws and Regulations
Study in boat operations, how to instruct the public in operation of boats, a study of Federal and state laws on boating regulations.

WO758 - First Aid and Safety
Responsibilities of park and recreation supervisors in first aid. General first aid procedures. Contacting local emergency agencies, etc. Include water front safety procedures, safety in the operation of small equipment.

WO759 - Maintenance of Recreational Areas I
Maintenance of park grounds, outdoor recreational areas, boating and swimming areas, maintenance of turf and golf courses.
CIVIL ENGINEERING TECHNOLOGY

The Civil Engineering Technology program prepares a student to become a technician in a field which concerns itself with the planning, design, and construction of both fixed structures and ground facilities for land, sea, or air transportation. It is concerned with the flow and uses of water. It is concerned with protection, in war and peace, against the destructive forces of man or nature. In other words, civil engineers and technicians build airports, bridges, dams, highways, powerhouses, pipelines, and railroads.

Thus, the engineering technician must possess skills in such a variety of areas as: hydraulics, flood control, irrigation, steel and concrete structural work, field surveying, traffic studies, computations, and the fundamentals of construction. And he is specifically trained to draw up plans and specifications; estimate costs and materials; use the transit, level and other surveying instruments; prepare maps; inspect jobs; and supervise construction.

JOB OPPORTUNITIES

Positions available to the civil engineering technician are:

**Computer** - He determines coordinates for geographic position, land lines, and land monuments in addition to computing quantities.

**Contractor's Aide** - He prepares plans and detail drawings for elements of construction projects.

**Estimator** - He estimates costs, quantities of materials and supplies, and labor for construction projects.

**Inspector** - He inspects line and grade references, forms, materials, and construction methods.

**Surveyor** - Surveys earth’s surface and oversees engineering survey partly engaged in determining exact location and measurements of points, elevations, lines, areas, and contours of earth’s surface to secure data used for construction, map making, land valuation, mining or other purposes. Calculates information needed to conduct survey from notes, maps, deeds, or other records.

Other positions are available to the graduate engineering technician after several years of experience. These include: construction supervisor, highway engineering supervisor, photogrammetrist, and specifications writer.
CIVIL ENGINEERING TECHNOLOGY

1st Quarter

101 - Communication Skills I
Training in reading and listening, with emphasis on retention and comprehension of printed material, and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in the various technologies.

108 - Technical Mathematics I
The choice of topics and the order in which they are presented integrate mathematics with the technical courses in the curriculum to their mutual benefit. The course includes: solution of linear equations in one, two, and three unknowns, solution of formulas, and ratio, proportion, and variation. This is followed by functional relationships and an introduction to graphing. The conclusion of the course is a review of plane geometry, introduction to the trigonometric functions, and the graphs of the trigonometric functions.

111 - Physics (Mechanics)

CE701 - Surveying I
Surveying and its applications; the surveying method; setting up the transit; use of the transit, turning angles, prolongation of a straight line, etc.; setting up the level; running circuits of levels; horizontal measurement; tape corrections; keeping field notes, adjustment and cleaning of transit and level.

131 - Engineering Drawing I
This is a beginning course for students who have had little or no experience in drafting. The principal objectives are basic understanding of orthographic projection; skill in orthographic, isometric, and oblique sketching and drawing; ability to produce accurate and complete detail and assemble working drawings; understanding of principles and appropriate applications of descriptive geometry; experience in using handbooks and other resource materials; elementary understanding of design principles in machine parts used as drawing projects and of the simplified drafting practices in industry. American Standards Association standards are stressed. When feasible an interpretation of industrial sketches and prints is introduced to emphasize accepted drafting practices.

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and essay.

109 - Technical Mathematics II
A continuation of Technical Mathematics I to include vectors and imaginary and complex numbers. Logarithms are introduced and then applied to trigonometry. Trigonometry is expanded to include the study of fundamental identities and the solution of oblique triangles. Determinants are discussed in relation to the solution of simultaneous linear equations. The course concludes with a discussion of quadratics and higher degree equations.

CE702 - Surveying II
Leveling procedures; establishing line and grade for construction; topographic surveying; traverse and traverse computations; the elements of the use of aerial photographs.

112 - Physics (Electricity)

132 - Engineering Drawing II
The instructional units of this second-year drafting course provides additional understanding of drafting problems, skills and techniques essential to the draftsman; emphasize design applications and background knowledge needed to carry out drafting and design functions; and introduce specialized drafting areas valuable in preparation for work in
CE707 - Highway Construction I
Highway economics and finance, highway planning, geometric design of highways, drainage, and drainage structure, surveys and plans, contractual documents and supervision of construction.

CE705 - Surveying V
Advanced surveying methods. Triangulation systems. Details of new surveying procedures; aerial surveys, the theodolite, the geometer, precision survey instruments and methods.

IE902 - Industrial Supervision
Training in the methods of handling management problems, setting policies, personnel problems, etc. To equip the student for possible supervisory positions.

CE709 - Town Site and Landscape Engineering
City and subdivision planning, calculations, preliminary cost considerations. Public regulation and private interest.

6th Quarter

CE710 - Civil Engineering Law
Record research at court house, writing of deeds and recording of plots; a study of those phases of law directly associated with the Civil Engineering field, judicial procedure, duty of care, industrial nuisances, industrial injuries and industrial contracts.

CE712 - Materials and Testing

CE708 - Highway Construction II
Advanced. Earthwork operations and equipment; thickness design of flexible pavements and bases; soil aggregate roads and stabilization; bituminous surface treatments; highway maintenance.

CE713 - Soil Materials and Testing
Engineering tests of soils for design and control to meet ASTM Standards. Testing for moisture content, standard compaction, proctor penetration, sieve analysis, hydrometer analysis, and unconfined compression.

134 - Hydraulics and Pneumatics
A study is made of the basic components of hydraulic and pneumatic systems and methods of combining them to build various circuits. The emphasis is on the use of hydraulic and pneumatic for power transmission and for control purposes. Both subject areas are treated as basic science, with emphasis on mathematics analysis and the scientific method. It is recommended that individual term problems requiring a significant amount of handbook design be required for this course.

CE711 - Engineering Problems and Field Inspection
Actual field visitations, office computations; use of office machines, reducing field notes, report forms, state and federal interpretation of highway code.
## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY

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3rd Quarter

103 - Communication Skills III
A continuation, in part, of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

110 - Technical Mathematics III
A continuation of Technical Mathematics II to include plane and solid analytic geometry. The study includes the straight line, circles and conic sections. Algebraic methods are applied to the study of curves and surfaces in threedimensional space.

113 - Physics (Heat, Light, and Sound)
Fundamental properties and basic principles of heat, light, and sound.

EM805 - Electronics I
A thoroughly modern introduction to high vacuum and solid-state, electronic devices and basic electronic circuits, including small signal and power amplifiers, feedback principles, as well as electronic power supplies and related circuitry. The course features a closely integrated laboratory to provide up-to-date experience in electronic applications.

EM804 - Mechanics
An introductory study of basic physical concepts as applied to mechanical devices. Force, mass, velocity, acceleration, friction, springs, torque, and similar topics are covered. Emphasis is placed on the common characteristics of mechanical and electrical phenomena.

4th Quarter

105 - Technical Writing
Forms and procedures for making technical reports. Practice in writing technical papers, memos, business letters, and establishment of patterns for reports required at school or in industry.

122 - Principles of Sociology
An analysis of the relationship of the individual and the group to social institutions. The cultural background of American Civilization. Collective behavior, human ecology, and social change are studied. Emphasis on the social effects of modern technology and the adjustments of man to his culture.

EM809 - Introductory Electro-Mechanical Systems
An introduction to systems emphasizing both electrical and mechanical principles. Refrigeration, hydraulic, pneumatic, and vacuum systems are utilized to stress impedance, matching, amplification, and feedback concepts.

EM815 - Mechanical Analysis
Impedance matching, amplification, and feedback as applied to mechanical devices are studied. Analysis of mechanical systems is introduced. Materials used in today’s industrial mechanisms and processes are covered.

EM810 - Mechanics and Dynamics
A study of stresses, vibrations, linkages, gears, and other machine elements found in complex electro-mechanical systems. Logical applications of theory to the design and functioning of machine elements. Mathematical analysis is reinforced by immediate application to functional machines typical of those used in modern industry.

EM806 - Electronics II
Continuation of Electronics I. Decibels, small signal voltage amplifiers; large signal power amplifiers, field effect amplifiers, regulated power supplies; control circuits; injection transistor oscillators. Laboratory hours complement class work.
INDUSTRIAL ENGINEERING TECHNOLOGY

The Industrial Engineering Technology curriculum is designed to create a flexible technician capable of coordinating the work of technicians from many other areas. Industrial engineering itself is a comprehensive production science, which searches for prompt and efficient means of producing a well-designed product at minimal cost.

Its technology coordinates industrial equipment and output with those individuals who operate the equipment.

Basically, the industrial engineering technician is trained to manage industrial activities—control cost and quality output, minimize waste, perform time and motion studies, plan work flow, evaluate jobs and personnel, and make statistical studies and analyses of production costs.

JOB OPPORTUNITIES

Positions available to the industrial engineering technician include:

Methods Technician - He studies the effectiveness of manufacturing processes, and seeks out and develops methods to achieve economy and efficiency.

Plant Layout Man - He assists an industrial engineer in planning the location of machines, equipment, and materials-handling devices.

Production Planner - He makes up schedules, estimates rate and cost of production, and maintains control record systems and production cost.

Time Study Technician - He calculates the time required for industrial or manufacturing processes; and studies the efficiency of materials-handling and the arrangement and use of tools and equipment.

Positions available to the graduate engineering technician after several years of experience are: assistant production manager, manufacturing foreman, and wage administration technician.
INDUSTRIAL ENGINEERING TECHNOLOGY

1st Quarter

101 - Communication Skills I
Training in reading and listening, with emphasis on retention and comprehension of printed material, and an over-
coming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations
used in various technologies.

108 - Technical Mathematics I
The choice of topics and the order in which they are presented integrate mathematics with the technical course in the
curriculum to their mutual benefit. The course includes: Solution of linear equations in one, two, and three un-
knowns, solution of formulae, and ratio, proportion, and variation. This is followed by functional relationships and
an introduction to graphing. The conclusion of the course is a review of plane geometry, introduction to the trigono-
metric functions, and the graphs of the trigonometric functions.

111 - Physics (Mechanics)
Basic measuring systems, methods and conversions and calculations for physics. Properties of solids, liquids, and gases.
Statics and motion. Friction. Work, power, and energy. Simple machines. Laboratory and demonstrations related to
lecture.

IE907 - Machines Tools I
Safety, measuring tools, bench work, drill press, lathe, forge work, shaper, planer, milling machine, grinding machine,
hydraulic power transmission, metal band saws, properties and uses of ferrous and non-ferrous alloys, cutting fluids,
welding and foundry practices.

131 - Engineering Drawing I
This is a beginning course for students who have had little or no experience in drafting. The principal objectives are
basic understanding of orthographic projection; skill in orthographic, isometric, and oblique sketching and drawing;
ability to produce accurate and complete detail and assemble working drawings; understanding of principles and
appropriate applications of descriptive geometry; experience in using handbooks and other resource materials; ele-
mentary understanding of design principles in machine parts used as drawing projects and of the simplified drafting
practices in industry. American Standards Association standards are stressed. When feasible an interpretation of
industrial sketches and prints is introduced to emphasize accepted drawing practices.

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and essay.

109 - Technical Mathematics II
A continuation of Technical Mathematics I to include vectors and imaginary and complex numbers. Logarithms are
introduced and then applied to trigonometry. Trigonometry is expanded to include the study of fundamental
identities and the solution of oblique triangles. Determinants are discussed in relation to the solution of simultaneous
linear equations. The course concludes with a discussion of quadratics and higher degree equations.

112 - Physics (Electricity)
An introduction to electrical circuitry with emphasis on the concepts of electrical physics. The nature of magnetism
and electrostatics, electrical units. Basic direct-current circuits, Ohm's law, electrical measurement. Sources and
effects of electrical currents, cells. Electric power and energy. Electro-magnetism and electromagnetic induction.

132 - Engineering Drawing II
The instructional units of this second-year drafting course provides additional understanding of drafting problems,
skills and techniques essential to the draftsman; emphasize design applications and background knowledge needed to
5th Quarter

124 - **Principles of Economics I**
Introduction to American capitalism: basic economic concepts, including elementary demand-supply and price system analysis. Macro-economics: national income analysis, employment theory, inflation, business cycle, fiscal policy; American economic growth. Money: role of money, the institutions and functions of the American banking system, monetary policy.

IE906 - **Time and Motion Study II**
More advanced time study of complicated operations; use of standard data method of making studies; line balancing; application of time study in plant operation.

IE902 - **Industrial Supervision**
Training in the methods of handling management problems, setting policies, personnel problems, etc. To equip the student for possible supervisory positions.

AC201 - **Accounting I**
Introduction to fundamental accounting concepts and the procedures. The accounting cycle: nature of accounts and techniques of recording, classifying, summarizing and analyzing basic financial data. Application of fundamental accounting techniques to partnerships and corporations. Accounting for the formation, operation, and dissolution of business enterprises.

DP310 - **Digital Computer Fundamentals**
An introduction to digital devices. Number systems, basic logical circuits, logical design, the arithmetic element, the memory element, input-output devices, the control element.

6th Quarter

IE909 - **Standard Development and Application of Data**
Methods and standard data of time and motion study. Building of synthesis tables, developing time standards and incentive programs for production. Building of data for other personnel to use.

IE910 - **Labor Relations**
History of the labor movement, labor contracts, labor law, collective bargaining, incentive system, wage and salary administration.

IE903 - **Strength of Materials I**
The study of tension, compression and shear stress, deformation, engineering materials, riveted and welded joints, thin-walled pressure vessels, torsion, centroids and moments of inertia of areas, shear and moments in beams, and stresses in beams.

AC202 - **Accounting II**
Application of fundamental accounting techniques for cash, long term investments, notes and accounts, inventory methods, plant and equipment, liabilities. Introduction to manufacturing operations, cost methods and management's need of cost data.

IE904 - **Plant Layout and Materials Handling**
Principles of plant layout to obtain the most effective utilization of men, materials, and machines, as related to space and cost. Selection and use of modern equipment and methods for handling materials in industrial processes.
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3rd Quarter

103 - Communication Skills III
A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

110 - Technical Mathematics III
A continuation of Technical Mathematics II, to include plane and solid analytic geometry. The study includes the straight line, circle and conic sections. Algebraic methods are applied to the study of curves and surfaces in three-dimensional space.

111 - Physics (Mechanics)

ME955 - Machine Tool Laboratory
A laboratory course in the use of measuring tools, cutting tools, the lathe, the drill press, the shaper, the milling machines, the bandsaw, grinders, and welding and abrasive cutoff equipment.

ME953 - Fundamentals of Metallurgy III
A study of the function of alloying elements in steels, alloy steels, surface treatment of steels and cast ferrous metals.

ME954 - Metallurgical Laboratory Methods I
A course in mechanical testing procedures, including tensile tests, use of the extensometer and recorder, compression tests, transverse rupture test, hardness tests, impact tests, torsion tests, fatigue tests, and the Jominy end-quench test.

4th Quarter

105 - Technical Writing
Forms and procedures for making technical reports. Practice in writing technical papers, memos, business letters, and establishment of patterns for reports required at school or in industry.

122 - Principles of Sociology
An analysis of the relationship of the individual and the group to social institutions. The cultural background of American Civilization. Collective behavior, human ecology, and social change are studied. Emphasis on the social effects of modern technology and the adjustments of man to his culture.

ME956 - Heat Treatment of Metals
A study of the hardenability of metals including isothermal transformation diagrams. Jominy end-quench curves, quenching media, furnace atmospheres, grain size, carburizing, nitriding, and precipitation hardening. Industrial production and heat treating are also studied.

ME957 - Metallurgical Laboratory Methods II
A course in laboratory metallographic methods, including the construction and use of metallurgical microscopes and the metallograph. Emphasis on the preparation and analysis of metallurgical samples and photomicrographs.

ME958 - Metallurgical Instrumentation
A study of the basic principles of environmental measurements, such as temperature, pressure, displacement, fluid flow and strain. Special emphasis on pyrometry, including recording instruments, strain gages and strain-gage techniques.
PLASTICS ENGINEERING TECHNOLOGY

Modern research and technology are making the plastics industry the fastest growing industry in the world. Plastic manufacture now ranks as one of the few billion-dollar industries in the United States, having increased its production more than 200 per cent from 1955 to 1965.

Plastics Engineering Technology curriculum is designed to provide a wide range of learning experiences, including design, drawing, planning, testing, chemistry of plastics, manufacturing processes, molding, casting, welding, thermoforming, electroplating, vacuum metallizing and extrusion.

JOB OPPORTUNITIES

Positions available in Plastics Engineering Technology are:

**Quality Control Technician** - Takes samples of materials and checks specifications of products.

**Pilot Plant Technician** - Assistant to engineer, operates experimental plants, construction and maintains the operations of polymerize raw resins materials into plastics materials. Responsible for taking data and making observations.

**Application Research Technician** - Laboratory job in blending and compounding plastics with additives, filters, colors, etc.

**Plastic Article Production Technician** - Operates and supervises the operation of commercial equipment of injection, extruder, rotational, compression, and calendar moulding.

**Senior Technician** - Supervises new technicians in all operations and takes part in new projects or process evaluation.

Other positions are available to the graduate technician after several years of experience. Supervisory positions are open to the well-experienced technician with a background in engineering techniques and problem solving.
101 - Communication Skills I
Training in reading and listening, with emphasis on retention and comprehension of printed material, and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in the various technologies.

108 - Technical Mathematics I
The choice of topics and the order in which they are presented integrate mathematics with the technical course in the curriculum to their mutual benefit. The course includes: Solution of linear equations in one, two, and three unknowns, solution of formulae, and ratio, proportion, and variation. This is followed by functional relationships and an introduction to graphing. The conclusion of the course is a review of plane geometry, introduction to the trigonometric functions, and the graphs of the trigonometric functions.

114 - Chemistry I
Fundamental principles of chemistry are developed. A study is made of the metric system, the gas laws, chemical notation and equation writing as needed, atomic structure, periodic law, law of mass action, equilibrium, acids, bases and salts. Laboratory work correlates with class work.

PE851 - Introduction to Plastics
Covers a description of the different thermoplastics, beginning with brief outline of organic chemistry necessary for understanding. Discussion will cover different types of plastics: Thermosets, thermoplastics, and single identification tests, polymerization, molecular growth, and molecular weight.

IE907 - Machine Tools I
Safety, measuring tools, bench work, drill press, lathe, forge work, shaper, planer, milling machine, grinding machine, hydraulic power transmission, metal band saws, properties and uses of ferrous and non-ferrous alloys, cutting fluids, welding and foundry practices.

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and the essay.

115 - Chemistry II
This is a continuation of Chemistry I, and applies the general chemical principles that were developed to the study of the common elements, especially those used in plastic making. Additional topics include oxidation-reduction, modern concepts of ion effects, an introduction to analytical methods and electroplating. Laboratory experiments amplify the theory.

109 - Technical Mathematics II
A continuation of Technical Mathematics I to include vectors and imaginary and complex numbers. Logarithms are introduced and then applied to trigonometry. Trigonometry is expanded to include the study of fundamental identities and the solution of oblique triangles. Determinants are discussed in relation to the solution of simultaneous linear equations. The course concludes with a discussion of quadratics and higher degree equations.

IE908 - Machine Tools II
Continuation of Machine Tools I.

PE857 - Extrusion Molding
This course will cover extrusion equipment with emphasis on processing materials such as styrene, vinyls, polyethylene, polypropylene, A.B.S. and ancillary materials. Laboratory involves operating the extrusion equipment, determining operating conditions for different materials.
5th Quarter

111 - Physics (Mechanics)

PE855 - Introduction to Chemical Engineering
Study of flow sheets, survey of equipment, heat exchanger, instrumentation, temperature and pressure controls.

IE904 - Plant Layout and Materials Handling
Principles of plant layout to obtain the most effective utilization of men, materials, and machines, as related to space and cost. Selection and use of modern equipment and methods for handling materials in industrial processes.

IE905 - Time and Motion Study I
Basic laws of motion economy, operational analysis; process analysis; multiple activity charts; methods improvements, stop watch time study of various types of operations.

121 - Psychology
Study of the behavior of the individual in terms of maturation, learning, thinking, emotions, perception, motivation, and individual differences.

6th Quarter

112 - Physics (Electricity)

PE861 - Properties of Materials
Study of various plastics with special emphasis on fitting the proper plastic to the correct end use. Problems will be introduced requiring the practical use of the theory developed in lecture. Properties such as ability to weld, decorate, and form (extrusion, injection, thermo-forming) will be discussed.

IE902 - Industrial Supervision
Training in the methods of handling management problems, setting policies, personnel problems, etc. To equip the student for possible supervisory positions.

PE856 - Fundamentals of Processing Equipment & Management
How to read piping diagrams, function of pumps, heat exchanger, reactors, dryers, polymerization bottle, etc. A review of process equipment used in plastics manufacturing with emphasis on maintenance problems.

PE853 - Fabrication and Manufacturing of Plastics Products
Extrusion, injection, vacuum molding, rotational molding of plastics. Covers all industrial fabrications of plastics; example, making of plastic items, clorox bottle, telephone, etc.
### DENTAL HYGIENE TECHNOLOGY

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3rd Quarter

103 - Communication Skills III  
A continuation in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

DH552 - Principles of Medical Science  
Principles of electrolytes and fluid balance. Structure and function of the circulatory and respiratory systems. Laboratory includes gross anatomy and experiments in physiology.

DH561 - Preclinical Dental Hygiene II  
Continuation of Preclinical Dental Hygiene and techniques of fluoride application.

DH563 - Periodonties  
Etiology and classification of periodontal disease and principles of periodontology.

DH564 - Radiology  
History and development of the X-ray, its nature and properties. Safety precautions and uses of the X-ray in dentistry. Theory and practice in the fundamentals of oral radiographic technique. Film placement, tube angulation, processing and mounting of films. A specific number of radiodontic examinations and hours in darkroom procedures are required throughout the two-year Dental Hygiene Program.

DH565 - Nutrition  
A study of normal nutrition and its role in promoting good health. Includes composition and functions of foods, digestion and metabolism. Nutritional needs throughout the life cycle.

Summer Quarter  
Summer Program for Students - Clinical Lab Work

DH566 - Dental Materials  
Physical properties of dental materials and basic principles of their preparation. General manipulative techniques and various phases of laboratory techniques discussed and demonstrated.

DH567 - Clinical Dental Hygiene I  
Students perform oral prophylaxis, expose radiographs, apply topical fluoride to the teeth and give patient education to adult and child patients in the clinic. Laboratory hours refer to hours in clinic. Clinical Dental students will be on a rotating basis in the various dental offices in the area.

4th Quarter

DH553 - Principles of Medical Science  
Structure and functions of the nervous, urinary, and reproductive systems. Laboratory includes gross anatomy and experiments in physiology.

DH568 - Clinical Dental Hygiene II  
Continuation of Clinical Dental Hygiene.

DH571 - Pharmacology and Anesthesiology  
Drugs and anesthetics, with emphasis on those used in the dental office. Discussion of the origin of drugs and anesthetics, physical and chemical properties, preparation, mode of administration and effects on body systems.

DH572 - Dental Health Education  
Analysis of concepts, techniques of presentation, and goals of Dental Health Education. Major emphasis is placed on preparation and use of lesson plans and instructional materials in Dental Health. Classroom instruction in Dental Health in the Elementary and Secondary Schools.

DH573 - Dental Nursing Techniques  
A course designed to emphasize first aid principles and dental office emergencies.
MEDICAL LABORATORY TECHNOLOGY

The Medical Laboratory Technician performs laboratory procedures in bacteriology, blood banking, chemistry, hematology, parasitology, serology, and urinalysis under the direction of a medical technologist, physician, or pathologist. Specific tasks include collecting blood specimens, grouping and typing blood, concentrating specimens for parasitological study, analyzing blood and body fluids, preparing and staining slides for chemical components, microscopic examinations of urine, blood, and body fluids, and conducting electrocardiograms.

JOB OPPORTUNITIES

Graduates will find immediate employment opportunities in hospitals, nursing homes, independent laboratories, clinics, research laboratories. Training in this technology is not easily acquired, but the opportunities available more than compensate for the hard work. This field of endeavor is so vast that the technician upon graduation and employment acceptance, may find a tendency to specialize.

The diversity of training in the school of Medical Laboratory Technology qualifies the graduate for positions in practically any area of this expanding technology. The technician might select general medical technology, blood banking, research and development, quality control or any one of the many other areas of employment. With experience a technician may also move into a position as a manufacturer's sales representative, or in the installation, servicing, and maintenance of special laboratory equipment. Salaries are commensurate with ability, motivation, and knowledge of Medical Laboratory Technology.
MEDICAL LABORATORY TECHNOLOGY

1st Quarter

101 - Communication Skills I
Training in reading and listening, with emphasis on retention and comprehension of printed material and on overcoming barriers to listening. Vocabulary, including study of exact meanings of words and word combinations used in the various technologies.

108 - Technical Mathematics I
Solution of linear equations in one, two and three unknowns. Solution of formulae, ratios, proportions, and variations. Functional relationships and an introduction to graphing. Geometry, trigonometric functions.

140 - Biology
A basic science course for students of health technologies. Cell structure is studied macro- and microscopically. Phylums and nomenclature are studied.

117 - Basic Inorganic Chemistry
An introductory course in fundamental chemical concepts and laboratory techniques. Atomic structure, periodic classification of elements, chemical equations, chemical calculations, solutions, acids and bases, oxidation, reduction, reactions, and the gas laws.

ML580 - Medical Technology I
Orientation to the field of medical technology; role of the medical laboratory technician, definition and use of terms, the use and care of laboratory equipment, reporting methods, charts. A survey of the ethics set forth by the professional groups within the fields of the healing arts.

2nd Quarter

102 - Communication Skills II
A course aimed at developing skills in writing clear, concise exposition. Emphasis on the paragraph and the essay.

109 - Technical Mathematics II
Vectors, imaginary and complex numbers. Logarithms, trigonometry of fundamentals identities. Solution of oblique triangles. Determinants and higher degree equations.

ML582 - Physiology & Anatomy
This course familiarizes the health technology student with the various systems of the body. Systems covered in this course include: skeletal, muscular, circulatory, respiratory, urinary, nervous, digestive, and reproductive.

118 - Introduction to Organic Chemistry
A course in fundamental organic chemistry. The study of carbon compounds: aliphatic hydrocarbons, alcohols, ethers, aldehydes, ketones, organic acids, esters, amines, and aromatic compounds. An introduction to carbohydrates, lipids, and proteins. Related laboratory.

ML581 - Medical Technology II
Detailed study of the use and care of laboratory equipment including the microscope, incubator and glassware. The importance of laboratory safety is stressed. Sterilization and titration are discussed.

3rd Quarter

103 - Communication Skills III
A continuation, in part of Communication Skills II, expanded to include argumentation, persuasion, directions, and the writing of summaries.

111 - Basic Physics
A study of the more important principles of mechanics, heat, light, sound, and electricity. Problem solving and qualitative description of physical principles. Lectures and laboratory demonstrations.
6th Quarter

123 - Human Behavior
A basis for the consideration of human behavior problems and an understanding of oneself. Psychological principles and techniques in present day industry. Analysis of modern socio-industrial society.

ML592 - Histology and Cytology
Students are taught how to prepare tissue specimens for microscopic examination, including fixation, dehydration, embedding, and cutting tissues, and use and care of tools. Labeling and recording accuracy are stressed. Various mounting and staining procedures are taught and practiced with emphasis on the preparation of permanent slides for pathological diagnosis.

ML591 - Microbiology II
Continuation of bacterial methods. Protozoological and helminthological methods including staining and flotation or concentration techniques. Microscopic examinations. General mycological technique and study of various types of fungi. Collection and preservation of specimens for viral examination. Study of various viral agents, and of basic viral techniques for virus isolation and viral serology.

ML588 - Clinical Chemistry II
Continued study of the medical applications of the topics presented in Clinical Chemistry I. The study of diagnostic isotopology, steroid determinations, and flurometry will be introduced.

ML593 - Electrocardiograph
A review of the circulatory system. Orientation to the preparation of the patient, and the operation of the machine. Also included in this course is the theory of basal metabolism and the operation of the metabolism machine.

Summer Quarter

ML594 - Summer Quarter I
One-quarter internship providing a practical application of the skills and abilities learned during the previous three quarters of the first year. The students are assigned to an accredited hospital laboratory as a trainee.

ML595 - Special Problems I
During the internship period, the student will keep a monthly log indicating scope and degree of activity in the laboratory. A copy of this work will be filed with the hospital and a copy filed with the College. A problem of special interest to the student, requiring library and/or laboratory study will be selected by the student and the faculty coordinator.

ML596 - Summer Quarter II
One-quarter internship providing a practical application of the skills and abilities learned during the previous three-quarters of the second year. The students are assigned to an accredited hospital laboratory as a trainee.

ML597 - Special Problems II
During the internship period, the student will keep a monthly log indicating scope and degree of activity in the laboratory. A copy of this work will be filed with the hospital and a copy filed with the college. A problem of special interest to the student, requiring library and/or laboratory study will be selected by the student and the faculty coordinator.
APPLICATION FOR ADMISSION

(Please check):

| Full-Time [ ] | Part-Time [ ] |

Procedure:

1. Complete this application and return it with the $10.00 application fee* to the OFFICE OF ADMISSIONS:

2. Take or mail the attached High School Transcript Request Form and a stamped, addressed envelope to your high school for processing. If you have attended a college or university, write to the Registrar and request that a transcript of your grades be forwarded.

3. You will be contacted at a later date for a personal interview and/or appropriate tests if necessary as indicated by your application data.

I am making application for the following two-year technical program:

- [ ] Executive Secretarial Technology
- [ ] Accounting Technology
- [ ] Civil Engineering Technology
- [ ] Data Processing & Computer Technology
- [ ] Electro-Mechanical Engineering Technology
- [ ] Food Service Administration Technology
- [ ] Industrial Engineering Technology
- [ ] Metallurgical Engineering Technology
- [ ] Plastics Engineering Technology
- [ ] Retail Mid-Management Technology
- [ ] Water & Outdoor Recreation Technology
- [ ] Dental Hygiene Technology
- [ ] Medical Laboratory Technology

APPLICANT’S NAME

Deborah L. Lybrook

Sex [ ] M [X] F

ADDRESS

P.O. Box 766
Lucasville, Ohio 45648

TELEPHONE NO.: 456-6312
Single [X] Married Divorced _ Widowed 

SELECTIVE SERVICE NO.

Social Security NO.

ARE YOU A VETERAN? [X] NO

DATE OF BIRTH 10/14/54

NAME AND ADDRESS OF PERSON TO NOTIFY IN CASE OF EMERGENCY:

Lybrook Thomas Louis Parent

Relationship

Street or RFD

Lucasville Ohio

ZIP Code

TELEPHONE NO.

Do you wish to apply for financial aid?

[ ] Yes [ ] No

* The $10.00 Application Fee is non-refundable and is not deducted from the tuition fee. The application will not be processed without the $10.00 fee.
I. AFTER COMPLETING SECTION I, TAKE OR MAIL THIS FORM TO YOUR HIGH SCHOOL FOR COMPLETION.

Date ________________________________ 19__

Name ____________________________________
Last First Middle Single _____ Sex M_____ F_____
Married ______ Divorced ______ Widowed ______

Date of Birth ____________________________ Age ______
Month Day Year

Home Address ____________________________
Street or RFD City State Zip Code School District

High School ____________________________
Graduated ______ Will Graduate _____________
Withdrawn ______ Date ______________________

Program for which application is being made:
____ Executive Secretarial Technology
____ Accounting Technology
____ Civil Engineering Technology
____ Data Processing & Computer Technology
____ Electro-Mechanical Engineering Technology
____ Food Service Administration Technology
____ Industrial Engineering Technology
____ Metallurgical Engineering Technology
____ Plastics Engineering Technology
____ Retail Mid-Management Technology
____ Water & Outdoor Recreation Technology
____ Dental Hygiene Technology
____ Medical Laboratory Technology

II. THE FOLLOWING SECTION II IS TO BE COMPLETED BY YOUR HIGH SCHOOL.

A. Please send the following information:
   1. A copy of the student’s Academic Record (Transcript).
   2. A copy of the student’s Personality Check List and Activity List, if available.
   3. All recent Test Data if not on the above transcript.

   Test Data not included in transcript:
   Name of Test ______________ Form ______ Score ______ %tile____ Stanine ______
   Name of Test ______________ Form ______ Score ______ %tile____ Stanine ______
   Name of Test ______________ Form ______ Score ______ %tile____ Stanine ______

B. The applicant ranks number _____ in a graduating class of ________ students.
   His/Her point average is _______ Course of Study ____________________________

______________________________
Signature of Counselor or Principal