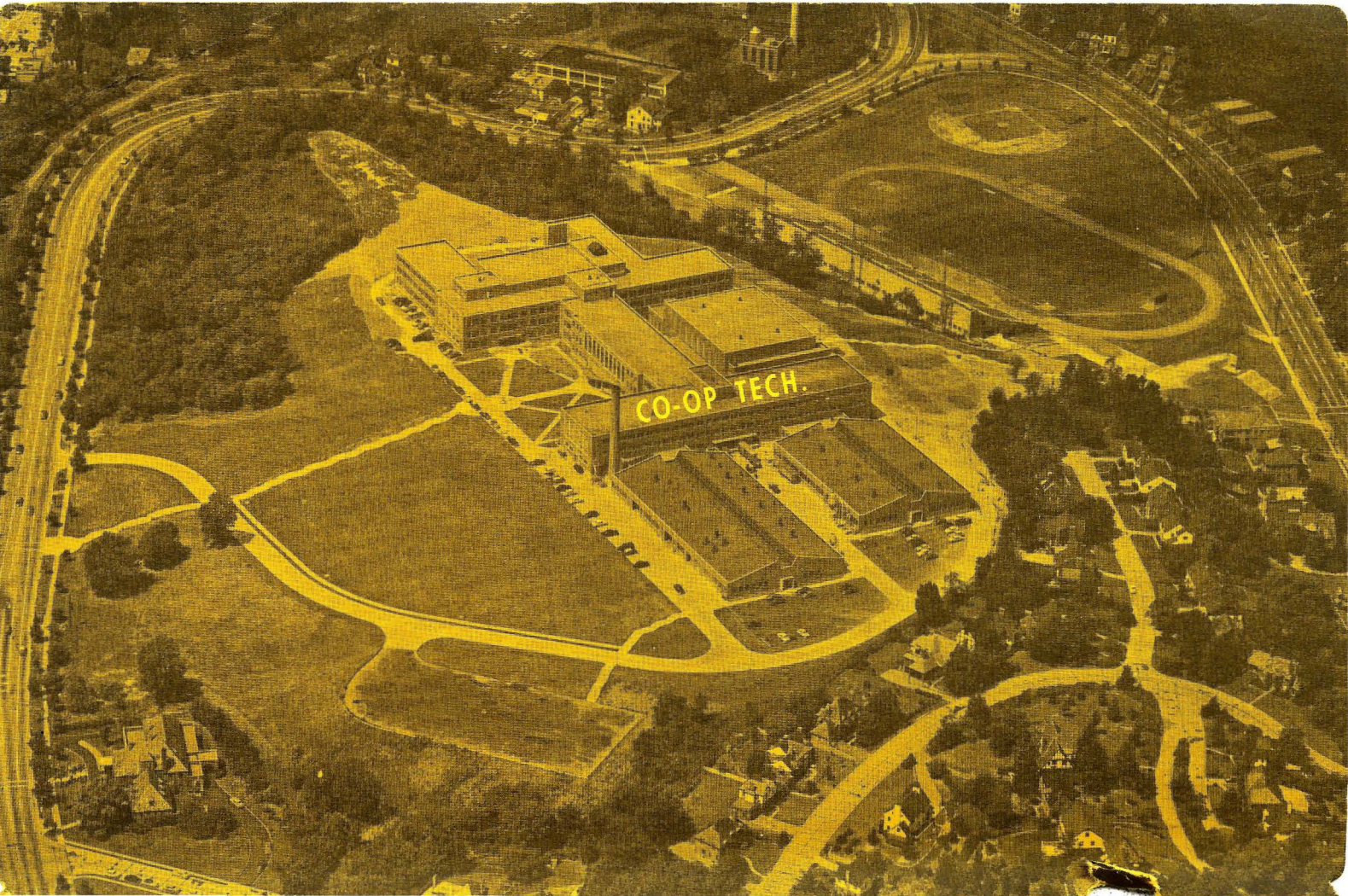
CAREERS OF IMPORTANCE

CINCINNATI COOPERATIVE SCHOOL OF TECHNOLOGY

A POST GRADUATE DIVISION OF
CINCINNATI PUBLIC SCHOOLS


CO-OP TECH.

CINCINNATI PUBLIC SCHOOLS

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CINCINNATI COOPERATIVE SCHOOL OF TECHNOLOGY

3520 Central Parkway Cincinnati, Ohio 45223

681-3320

Robert H. Lowe, Director

Clifford R. House, Dean

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OBJECTIVES

Technical education requires at least two years of schooling after high school graduation. The student in a technical program concentrates his major effort on the particular technology which he is studying. He also studies the mathematics, communication skills, science, and leadership skills related to his technology.

For many years, the increasing complexity of Business and Industry has generated a growing demand for technicians. As Business and Industry devise additional tools and techniques of greater sophistication, the technician's role continues to increase in importance and in scope.

The Cincinnati Cooperative School of Technology is staffed by experienced teachers who employ the latest instructional techniques. Cooperative work experience utilizes the training resources of Cincinnati's business-industrial community, resources which are more diverse than those of any other major city. Thus, classroom participation and laboratory work, on one hand, and cooperative work experience, on the other complement each other to provide an ideal program for technical education.

Although technical education is designed to prepare for immediate entry into technical jobs, not into professional positions, thousands of technicians, who do above average work in school and on the job, upgrade themselves into more desirable positions through further education. Most of those who continue their education beyond technical school transfer technical courses toward college degrees.

GRADUATION

A student completing any one of the programs is granted a diploma in his area of study. Upon request, a transcript of the student's record will be forwarded to any

employer or college. Evaluation of the record is entirely in the hands of the reviewer.

GENERAL INFORMATION

The academic year, which begins early in September and ends late in August, is divided into five ten-week terms. As the two groups of students alternate between work and school, one group takes a one-week vacation at the end of December; the other takes a one-week vacation at the end of August.

Students spend from twenty-five to thirty hours per week in classrooms and laboratories plus ten to fifteen hours on outside study and preparation. When students are in school, they are expected to be full-time students; when they are working, they are expected to be full-time employees.

GENERAL ADMISSION REQUIREMENTS

Applicants must meet the following qualifications:

1. High school graduation in the upper two-thirds of the class or equivalent standing in terms of aptitude and achievement tests.

2. Presentation of satisfactory recommendations.

3. Satisfactory scores on entrance examinations.

4. Physical qualifications to perform acceptably in field of training selected.

5. A personal interview with the coordinator of your selected program and/or an admissions counselor.

APPLICATION FOR ADMISSION

Apply early! Each year some programs are filled by early spring. Applicants for these programs who subsequently score well on the admission examination may be placed on stand-by lists.

To apply, follow these steps:

1. Get the necessary forms from your high school counselor or by writing or calling the Admissions Office. (The address and phone number are listed on page 2.) You will need two application forms and two recommendation forms.

2. Complete the application form in duplicate and mail or take it to the Admissions Office with the ten dollar application fee. This fee partially covers the cost of administering the entrance test, counseling, and registering the student if he is accepted. It is not refundable.

3. Ask your high school counselor to send a transcript to CCST; he will have one sent at any time during your senior year. This should be done as soon as you have decided to apply for admission.

4. Ask two adults who have observed your performance at school or at work to complete the recommendation forms and send them to CCST. If you have never worked, two adults from school will be sufficient.

5. Take the entrance examination on the earliest possible date. No action can be taken on your application until the examination has been taken and scored. The dates on which the examination will be administered are listed on page 125.

6. After you have completed these procedures, wait until you are contacted by the coordinator for your selected area and/or the Admissions Office to arrange a pre-enrollment interview. This will not be done until your records contain the following items:

   Application (two copies)
   Two references
   High School transcript
   Entrance examination scores

   This interview will give you an opportunity to discuss enrollment, school, and cooperative work experience.

STUDENT EXPENSES

Approximately two-thirds of the cost of operating the Cincinnati Cooperative School of Technology is provided from Federal funds under the National Defense Education Act. For students residing in the Cincinnati School District, the remaining cost is shared between the Cincinnati Public Schools and the students. Since Ohio school districts cannot subsidize the education of non-residents, students living outside the Cincinnati School District must pay a higher rate.

Tuition: (Per in-school term)	
Residents	$100
Non-residents	125
Materials and Books: (approximately)	35

All students must register for cooperative work experience during alternate ten-week terms and pay a five dollar fee at the time of registration. This fee covers part of the cost of coordinating and evaluating cooperative job experiences.

REFUNDS

Enrollment and coop fees are not refundable. Tuition refunds will be made on the following basis:

During the first week of term	80%
Second Week	60%
Third Week	40%
Fourth Week	20%

No refunds will be made after the fourth week.

FINANCIAL AIDS

The opportunity to hold a cooperative job and attend classes on a ten-week alternating basis provides the best possible situation for those students who require financial assistance. A limited number of small scholarships are also available for qualified students with demonstrated financial need.

Loan funds are also available under the National Vocational Student Loan Insurance Act of 1965. These are low-interest loans made through State approved commercial lending agencies. A student who borrows money through this act does not have to begin repayment until he has completed his schooling. Further information can be obtained by contacting the school.

The Cincinnati Cooperative School of Technology is recognized and approved by the Veterans Administration. Veterans who qualify for V.A. educational benefits are eligible to receive these benefits when attending CCST.

GRADING SYSTEM

Academic standards are maintained at a high level. The following system is used to evaluate student achievement in each subject:

Grade	Quality	Points
A	Superior	4
B	Good	3
C	Average	2
D	Poor	1
F	Failing	0
Inc.	Incomplete	
Wd.	Withdrawn	

GRADE REPORTS

Grade reports will be mailed to the student's home at the end of each term. Mid-term grades of students who are failing will be reported to the school administration and special attention will be given those students to assist them in improving.

DISMISSAL

A student will be dismissed from the Cincinnati Cooperative School of Technology if his accumulative point-hour ratio is below any of the following levels:

After one term	1.00
After two terms	1.25
After three terms	1.50
After four terms	1.75
After five terms	1.90

Instruction at CCST exists in an adult atmosphere; there are few regulations. In case of gross or repeated violations of the school's policies, the student will be dismissed.

WORK PLACEMENT

Students at Cincinnati Cooperative School of Technology are selected on the assumption that they will be immediately employable in a beginning job, hopefully related to the technology being studied. While such employment may be only of wage earning value at the very outset, it is expected that the student will merit more challenging job assignments very soon with the same employer, using his newly-acquired technical knowledge.

Every effort will be made to place early enrollees on work-experience jobs during the summer months prior to the opening of the fall term. Students are encouraged to locate employment for themselves within a framework which serves the purposes of technical education.

Students accepting coop employment which does not serve the intended purpose as determined by the school may be asked to withdraw from the program. A liberal interpretation of this regulation may be exercised during the early stages of enrollment, but all students will be expected to find or accept employment directly related to the technology being studied after the second term in school.

While Cincinnati Cooperative School of Technology has been quite successful in placing students on cooperative work jobs, there can be no ABSOLUTE GUARANTEE that cooperative employment can be obtained in every instance. Initial employment and continued employment depend on what the individual student can offer to employers. Students who have not demonstrated employability in some form by the end of the second term in school will be advised to discontinue the program.

Violations of the work placement procedures are harmful to the student, to the cooperative employer, to the school, and to the business-industrial community. No student nor any employer should attempt, under any circumstances, to influence the other for steady employment until the student has completed the entire two-year program.

BUILDING AND FACILITIES

The Cincinnati Cooperative School of Technology employs modern, sophisticated instructional gear in all programs that require it. Some examples are:

A full scale computer and data processing complex devoted exclusively to technical education.

An engineering drawing lab, incorporating the latest type of drafting equipment.

Automated microfilm storage and recall of engineering drawings.

Laboratory quality test equipment for engineering tests.

Electronics testing and instruction facilities.

Industrial quality composing, process-photography, and printing facilities.

Modern automotive testing devices.

The latest audio-visual and programmed instructional aids.

CCST is housed in the same building as Courter Technical High School at 3520 Central Parkway.

Parking, lunchroom and library facilities are available; a bookstore and adjoining student lounge, adjacent to the CCST offices, are used exclusively by CCST students.

STUDENT CLASS SCHEDULES

Classes may be scheduled at any time between 8:30 a.m. and 5:00 p.m. The average daily load will include five to six hours of instruction. Schedules for individual students are compacted to avoid undue delays between class assignments and to avoid long hours on campus unnecessarily.

AUTOMOBILE REGULATIONS

Adequate parking facilities adjacent to the school building are provided. Students should park in designated areas only and should observe proper driving courtesy. It is necessary for students to obtain an automobile registration sticker.

IMPLICATIONS FOR DRAFT STATUS OF YOUNG MEN

The Cincinnati Cooperative School of Technology will report the enrollment status of all male students to the Hamilton County (or other appropriate) Draft Board. Draft status for individual students can, of course, be determined only by Selective Service authorities in each instance, but full-time students doing satisfactory work in technical schools are generally classified 2A.

RELATED COURSES

To prepare for the complex business-industrial world of today and tomorrow, related courses are necessary to support mastery of the chosen field of study. These related courses are as necessary as the core courses for advancement to mid-management and para-professional positions.

CCST students, therefore, take related courses necessary to support growth in their major fields of study. Depending upon their fields, they master subjects such as mathematics, e.g., accounting, statistics, and computer numerical codes; science, e.g., electronics, chemistry, physics, and metallurgy; social studies, e.g., psychology, economics, human relations and behavior, and supervision; and communications, e.g., technical writing and speech.

AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY

AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY

The automobile industry employs more people and generates more income than any other industry in the nation. Increasing numbers of automobiles, generally increased complexity of design, and additional use of complex accessories all increase the number of people employed in automotive service — and increase employment opportunities for those technicians who work at the mid-management level.

CCST students are instructed in theory, procedures, and management techniques in school. As coops on the job in automotive service departments, they get practical experience under the direction of experienced service managers.

Graduates of the Automotive Service Management program will work as service managers, assistant service managers, service writers, parts department supervisors, and in other appropriate positions in the automobile industry.

AUTOMOTIVE SERVICE MANAGEMENT CURRICULUM

Term 1		HOURS PER WEEK Class	Lab.	Total
AS 1001	Communication Skills I	5	0	5
AS 1101	Technical Math I	3	2	5
AS 2501	Automotive Technology I	5	10	15
AS 2506	Machine & Hand Tool Lab. I	1	4	5
		14	16	30
1820	Cooperative Employment			
Term 2				
AS 1003	Communication Skills II	5	0	5
AS 1801	Introduction to Business	5	0	5
AS 2201	Physics I	3	2	5
AS 2502	Automotive Technology II	5	10	15
		18	12	30
1820	Cooperative Employment			
Term 3				
AS 1501	Industrial Psychology	5	0	5
AS 2202	Physics II	2	3	5
AS 2503	Automotive Technology III	2	8	10
AS 2507	Blueprint Reading and Sketching	3	2	5
AS 2510	Automotive Management I	3	2	5
		15	15	30
1820	Cooperative Employment			
Term 4				
AS 1102	Business Mathematics	2	3	5
AS 1502	Industrial Economics	5	0	5
AS 2504	Automotive Technology IV	2	8	10
AS 2508	Techniques of Welding	1	4	5
AS 2511	Automotive Management II	3	2	5
		13	17	30
1820	Cooperative Employment			

AUTOMOTIVE SERVICE MANAGEMENT
CURRICULUM

Term 5		Class	Lab.	Total
AS 1004	Technical Writing	2	3	5
AS 1503	Human Relations	3	2	5
AS 1802	Principles of Salesmanship	2	3	5
AS 2505	Automotive Technology V	5	10	15
		12	18	30
1820	Cooperative Employment			

AUTOMOTIVE SERVICE MANAGEMENT
ADVISORY COMMITTEE

NAME	EMPLOYER
Carl Tedesco, Director	Cinti. Automobile Dealers Association
Arthur Burnett, Auto Dealer	Burnett Pontiac
Robert Behler, Auto Dealer	Behler Oldsmobile
Cliff Jacobs, Auto Dealer	Jacobs Plymouth
Clifford Metzger, Buick Zone Service and Parts Manager	General Motors
James Smith, Assistant District Sales Manager	Ford Motor Company
Bruce Markley, District Manager Parts & Services	Lincoln-Mercury
Irwin Sobul, Vice-President	Leaseway Corp. (Cin. Div.)

AUTOMOTIVE SERVICE MANAGEMENT
Course Descriptions

AS 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling and vocabulary. Analysis of each student's strengths and weaknesses.

AS 1003 COMMUNICATION SKILLS II 5 Hours per week

Continuation of Communication Skills I, stressing expository writing.

AS 1004 TECHNICAL WRITING 5 Hours per week

Informal and formal reports. Techniques for collecting and presenting data, particularly as they apply to the automotive industry.

AS 1101 TECHNICAL MATHEMATICS I 5 Hours per week

Selected applications of principles and concepts essential for the automotive technician. Stressing accuracy in reading and interpreting units of measurements for efficient understanding of graphs, algebraic formulae, ratios and proportions.

AS 1102 BUSINESS MATHEMATICS 5 Hours per week

Intensive coverage of the arithmetic essentials of most areas of business. Accuracy and understanding of the number system and the many mathematical systems employed in American business with special emphasis on the systems employed in the automotive industry.

AS 1501 INDUSTRIAL PSYCHOLOGY 5 Hours per week

A scientific study of behavior as it occurs in business and industry; concerned with the behavior of workers, management, and consumers. Direct application of psychological principles to assist with interpersonal problems. Techniques include role playing and case studies.

AS 1502 INDUSTRIAL ECONOMICS 5 Hours per week

An introductory study of economic principles in the modern economic process. Content includes: scarcity concept, resource development, organization for production, overall output and composition of the economy and pattern of distribution. The circular flow of economic activity in relation to the problems of resources, technology, political and social institutions.

AS 1503 HUMAN RELATIONS 5 Hours per week

Basic principles of human behavior. Problems of the individual studied in relation to society, group membership, and relationships within the work situation. Special emphasis placed upon effective customer relations, motivation, communication attitudes, job analysis, supervision and leadership.

AS 1801 INTRODUCTION TO BUSINESS
5 Hours per week

A comprehensive introduction to business operations and organizations with an analysis of forms of business ownership, business functions, and problems of management.

AS 1802 PRINCIPLES OF SALESMANSHIP

5 Hours per week

An analysis of the general principles and techniques of effective selling. Principles and problems that include background information a salesman needs, and analysis of the selling process. Special emphasis on selling in the automotive industry.

AS 2201 PHYSICS I 5 Hours per week

Fundamental principles of mechanics, treated with emphasis on the kinematics and dynamics of machines and fluids with special application to the motor vehicle.

AS 2202 PHYSICS II 5 Hours per week

Fundamental principles of heat and electricity, treated with emphasis on heat engines, electron theory, circuits and instruments with special application to the motor vehicle.

AS 2501 AUTOMOTIVE TECHNOLOGY I

15 Hours per week

Principles of the internal combustion engine. Repair and rebuilding modern automotive engines, including valves, rings, bearings, cooling and lubricating systems. Emphasis on the proper use of hand tools and special equipment.

AS 2502 AUTOMOTIVE TECHNOLOGY II

15 Hours per week

Principles of carburetion: cleaning, rebuilding and adjusting representative types of carburetors and other fuel components. Fundamentals of auto electrics; construction, operation and repair of the electrical system, including batteries, ignition, starting, generating and accessory circuits.

AS 2503 AUTOMOTIVE TECHNOLOGY III

10 Hours per week

Fundamentals and repair of the automobile chassis; includes suspension, braking system, steering and ventilation systems. Emphasis on the use of special equipment used to measure, repair, and adjust these units.

AS 2504 AUTOMOTIVE TECHNOLOGY IV

10 Hours per week

A study of the design, construction, operation and servicing of automotive drive line components. These components include clutches, transmissions, rear axles and differentials.

AS 2505 AUTOMOTIVE TECHNOLOGY V

10 Hours per week

Automotive service and trouble-shooting. Procedures and techniques for diagnosing and repairing electrical, engine and carburetion problems. The latest types of automotive testing equipment are studied together with standard repair procedures as practiced in the modern automotive shop. Work will be performed on live equipment.

AS 2506 MACHINE AND HAND TOOL LAB. I

5 Hours per week

Principles and processes which underlie the use of hand tools, cutting tools, portable equipment and accessories, measuring devices and gauges. Emphasis placed on developing sound trade judgment, safe work habits, and correct work procedures.

AS 2507 BASIC BLUEPRINT READING AND SKETCHING
5 Hours per week

Provides a working knowledge of blueprint reading and shop sketching with special application for automotive techniques. Technical terminology is defined and applied in logical sequence for each new principle.

AS 2508 TECHNIQUES OF WELDING 5 Hours per week

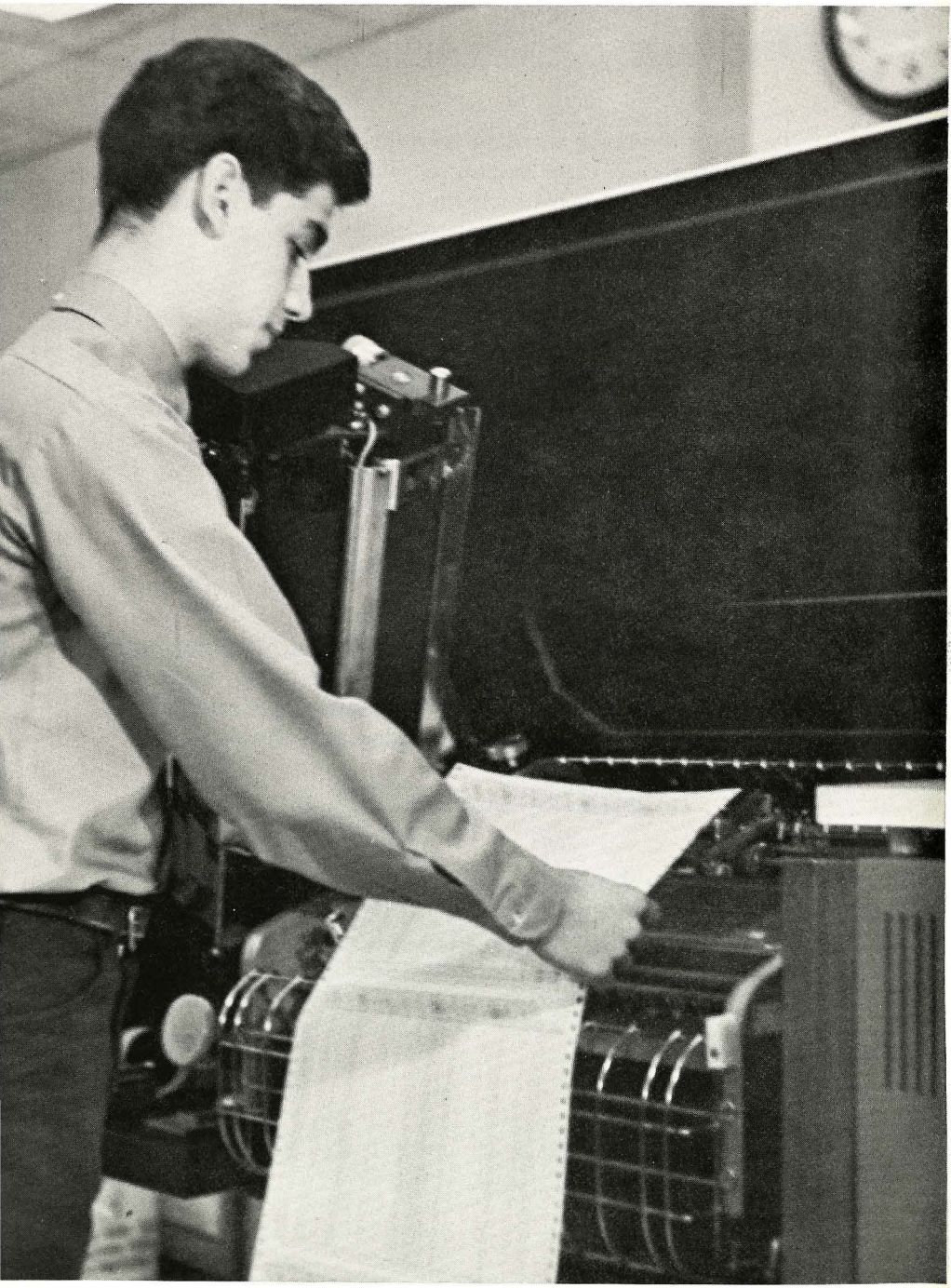
Fundamental understanding and skill in the use of oxyacetylene welding equipment is developed. Such typical operations as butt, lap, and fillet welds and the making of a bead are performed. Demonstration of arc-welding equipment.

AS 2510 AUTOMOTIVE MANAGEMENT I
5 Hours per week

Organization, design, lay-out, administration and operation of an automobile dealership, trucking company or automotive leasing operation. Recruiting, hiring and retaining personnel.

AS 2511 AUTOMOTIVE MANAGEMENT II
5 Hours per week

A continuation of Automotive Management I. Engineering traffic flow, building parts and accessory sales, customer relations, measuring local parts and accessory market. Service selling and automotive warranties.



BUSINESS DATA PROCESSING TECHNOLOGY

BUSINESS DATA PROCESSING TECHNOLOGY

Occupations in the data processing and computer technology field are very new -- as new as the electronic computer itself.

Computers can follow only carefully prepared, step-by-step instructions for each job. It is the programmer who prepares these step-by-step instructions. Every problem that is processed on a computer must first be analyzed carefully to assure the efficient processing of data. There are usually several possible ways of obtaining the correct answer to any given problem; some of them are more direct than others.

Normally a programmer does the preliminary analysis and planning. Once the general plans have been completed, the programmer is ready to start the job of writing the "program," or detailed instructions for processing data on the computer. Exactly how he does this depends on the kind of computer used and the nature of the application being programmed.

The programmer usually starts his task by conferring with professional staff members who are in a position to furnish him with detailed information about the subject matter of the problem. This done, he makes a flow chart, or diagram, showing the order in which the computer must perform each operation; for each operation he prepares detailed instructions, or "routines." These routines, once they have been transferred to the computer's memory, tell the machine exactly what to do with all the data associated with the problem.

A comparatively simple problem can be programmed for a computer within a few hours. A program which deals with a complex problem or is designed to produce many different kinds of information may require thousands of routines and many months of preparation.

BUSINESS DATA PROCESSING TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 1		Cl.	Lab.	Total
1001	Communication Skills I	5	0	5
1101	Math. for Bus. Data Processing I	5	0	5
1512	Economics	5	0	5
1701	Introduction to Data Processing	5	5	10
1843	Accounting I	3	2	5
		23	7	30
1820	Cooperative Employment Program			
Term 2				
1002	Communication Skills II	5	0	5
1102	Math. for Bus. Data Processing II	5	0	5
1514	Psychology	5	0	5
1703	Business Applications Laboratory	3	7	10
1844	Accounting II	3	2	5
		21	9	30
1820	Cooperative Employment Program			
Term 3				
1007	Expository Writing	5	0	5
1103	Math. for Bus. Data Processing III	5	0	5
1704	Case Study Laboratory	3	7	10
1705	Basic Computer Concepts	5	0	5
1900	Computer Electronics	3	2	5
		21	9	30
1820	Cooperative Employment Program			
Term 4				
1004	Technical Writing	5	0	5
1706	Computer Programming and Operation	12	8	20
1823	Business Law	5	0	5
		22	8	30
1820	Cooperative Employment Program			

BUSINESS DATA PROCESSING TECHNOLOGY
CURRICULUM

Term 5		Hours per week Cl.	Lab.	Total
1005	Effective Speaking	5	0	5
1707	Installation Management	5	0	5
1708	Computer Programming and Systems Analysis	12	8	20
		22	8	30
1820	Cooperative Employment Program			

BUSINESS DATA PROCESSING
ADVISORY COMMITTEE

NAME	EMPLOYER
Andrews Atkinson, Superintendent of Data Processing	City of Cincinnati
Robert Bridges, Manager of Systems and Information Services	Billboard Publishing Company
Robert Gillespie, Regional Educational Director	Honeywell Incorporated
O. V. Herried, Office Manager	Fireman's Fund American Insurance Companies
Donald R. Lancaster, Vice President of Data Processing Center	Central Trust Bank
Lowell Mason, Supervisor, Data Processing	R. K. LeBlond Machine Company
William McDonald, Manager, Evendale Computer Center	General Electric Company
Paul Nerone, Staff Assistant	Western Southern Life Insurance Co.
Lee Ransick, Director of Data Processing Operations	Ohio National Life Insurance Company
Edward Wess, Division Manager, Management Information Services	MacGregor-Brunswick

BUSINESS DATA PROCESSING
Course Descriptions

DP 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling, and vocabulary. Analysis of each student's strengths and weaknesses.

DP 1002 COMMUNICATION SKILLS II 5 Hours per week

A continuation of Communication Skills I, stressing reading improvement - both rate and comprehension.

DP 1004 TECHNICAL WRITING 5 Hours per week

Informal and formal written reports. Techniques for collecting and presenting data, particularly as they apply to industry. Some work with business letters.

DP 1005 EFFECTIVE SPEAKING 5 Hours per week

Organization, development and presentation of general speeches with emphasis on the oral report as a form of business and/or industrial communication.

DP 1007 EXPOSITORY WRITING 5 Hours per week

Organization and development of expository compositions, stressing logical and fallacious reasoning.

DP 1101 MATHEMATICS FOR B.D.P. I 5 Hours per week

Number system; algebraic equations. linear equations, negative numbers, negative exponents. Arithmetic of computers; octal, binary and decimal systems. Introduction to set and group theory.

DP 1102 MATHEMATICS FOR DATA PROCESSING II (Statistics) 5 Hours per week

Practical business application of statistics to business problems. Students develop the ability to construct, use, and interpret tables, charts, frequency distributions; determine measures of central tendency and dispersion. The course acquaints the student with the theory and applications of probability and stresses the importance of statistics in decision making.

DP 1103 MATHEMATICS FOR B.D.P. III 5 Hours per week

The types of logic a computer uses in operation. Linear programming and additional number systems. Traditional logic and uses in computer operation. The memory and circuitry of the machine. Boolean algebra of propositions with application to switching circuits.

DP 1512 ECONOMICS 5 Hours per week

An introductory course in economics designed to give the student a basic understanding of the operation of modern economic systems.

DP 1514 PSYCHOLOGY 5 Hours per week

Introduction to the principles of psychology with emphasis on developing an understanding of human relations, employer-employee relationships, and an examination of the theories and findings applicable to the world of business.

DP 1701 INTRODUCTION TO DATA PROCESSING
10 Hours per week

An overview of the entire field of data processing. Some hands-on experience in the programming and operation of unit record equipment.

DP 1703 BUSINESS APPLICATIONS LABORATORY
10 Hours per week

Instruction in the theory of punched care equipment, with lab exercises involving panel wiring and operations of the following machines: card punch, sorter, interpreter, reproducing punch, collator, and accounting machine. Practical exercises will be typical of those performed in existing installations.

DP 1704 CASE STUDY LABORATORY 10 Hours per week

Students are required to make complete case studies. Presentations include card forms, flow charts, systematic problem solving, etc.

DP 1705 BASIC COMPUTER CONCEPTS

5 Hours per week

Introductory programming. This sequence of two courses, 1705 and 1706, is designed to give the student a complete knowledge of computers. Specifics: machine coding, symbolic languages, utility programs, table look up, address modification, program switches, program checks, subroutines, etc.

DP 1706 COMPUTER PROGRAMMING AND OPERATION

20 Hours per week

Symbolic languages which have broad application are studied and used. Programs are written for, and tested on, the CCST computer system.

DP 1707 INSTALLATION MANAGEMENT

5 Hours per week

Personnel policies, office management, and data processing as it relates to general management problems.

DP 1708 COMPUTER PROGRAMMING AND SYSTEMS ANALYSIS 20 Hours per week

The student is required to design a complete system around a given set of applications. He must select the type of data to be used, devise data flow patterns, design input and output formats, flow chart the system, program, generate test data, and demonstrate the operation of the system.

DP 1823 BUSINESS LAW 5 Hours per week

The legal framework of business for beginning students.

DP 1843 ACCOUNTING I 5 Hours per week

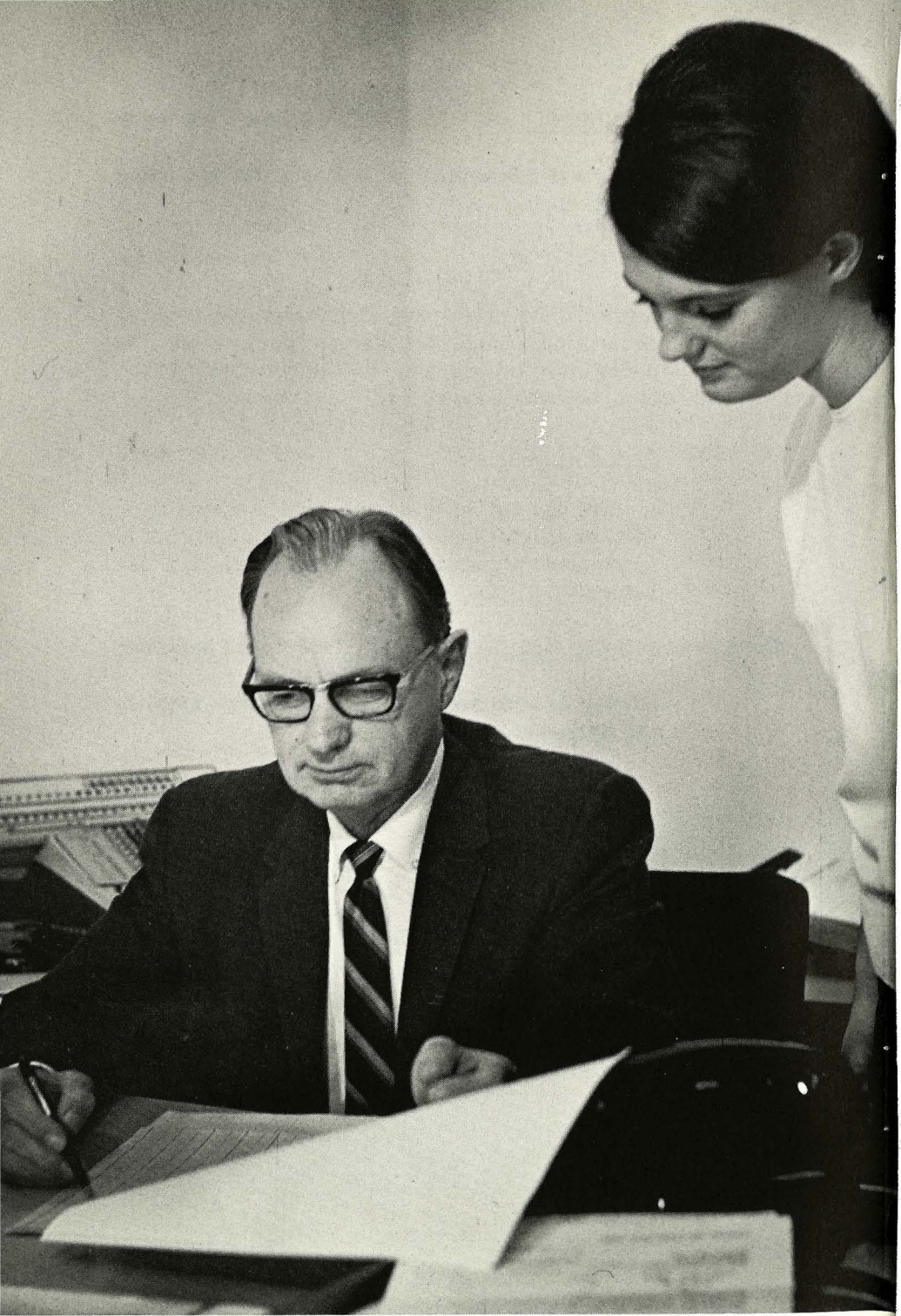
Study of the principles, techniques, and tools of accounting. Basic accounting concepts and the necessary background for understanding the mechanics of accounting.

DP 1844 ACCOUNTING II 5 Hours per week

A continuation of Principles of Accounting I, with practical applications. Modern concepts of automated accounting are introduced and developed.

DP 1900 COMPUTER ELECTRONICS 5 Hours per week

Survey of electronic principles as they apply to the operation of computers.



BUSINESS MANAGEMENT TECHNOLOGY

BUSINESS MANAGEMENT

Modern business management requires mature judgment, mastery of management techniques, and a knowledge of modern technology. The CCST Business Management program, offered by a school experienced in technical education, fills the need for mid-management personnel with the technical knowledge so valuable to industry.

Business Management students meet with instructors experienced in management--in an adult atmosphere of mutual respect. In school, they learn the skills and acquire the knowledge necessary for mid-management positions. The latest communication techniques (visual presentation of management concepts, case studies, systems development, field trips, guest experts, for example) are employed.

While engaged in their cooperative work experience, Business Management students participate in management training programs in many of Cincinnati's leading firms.

Upon graduation, the Business Management student will be prepared to assume mid-management responsibilities in banking, insurance, and a number of other important industries.

BUSINESS MANAGEMENT CURRICULUM

Term 1		HOURS PER WEEK Class	Lab.	Total
BM 1001	Communication Skills I	3	2	5
BM 1131	Business Math I	5	0	5
BM 1502	Principles of Economics	5	0	5
BM 2901	Principles of Marketing I	5	0	5
BM 2911	Principles of Accounting I	3	2	5
BM 2921	Introduction to Business I	5	0	5
		26	4	30
1820	Cooperative Employment			
Term 2				
BM 1002	Communication Skills II	3	2	5
BM 1132	Business Math II	5	0	5
BM 1802	General & Multiple Line Insurance I	3	2	5
BM 2902	Principles of Marketing II	5	0	5
BM 2912	Principles of Accounting II	3	2	5
BM 2922	Introduction to Business II	5	0	5
		24	6	30
1820	Cooperative Employment			
Term 3				
BM 1007	Expository Writing	3	2	5
BM 1700	Survey of Data Processing	5	0	5
BM 1803	General & Multiple Line Insurance II	4	1	5
BM 2903	Principles of Marketing III	5	0	5
BM 2913	Intermediate Accounting	1	4	5
BM 2923	Salesmanship	3	2	5
		21	9	30
1820	Cooperative Employment			

BUSINESS MANAGEMENT
CURRICULUM

Term 4		HOURS PER WEEK Class	Lab.	Total
BM 1006	Technical Writing	3	2	5
BM 1504	Principles of Psychology	5	0	5
BM 1823	Business Law I	5	0	5
BM 2904	Sales Management	3	2	5
BM 2914	Cost & Managerial Accounting	3	2	5
BM 2924	Organization of Management I	5	0	5
		24	6	30
1820	Cooperative Employment			
Term 5				
BM 1005	Effective Speaking	3	2	5
BM 1505	Applied Psychology	5	0	5
BM 1824	Business Law II	5	0	5
BM 2905	Money & Banking	5	0	5
BM 2915	Tax Accounting	3	2	5
BM 2925	Organization of Management II	5	0	5
		26	4	30
1820	Cooperative Employment			

ADVISORY COMMITTEE
BUSINESS MANAGEMENT

NAME	EMPLOYER
G. James Haan, Personnel Relations	Union Central Life Insurance Co.
Norman Hartleb, Billing Manager for Chemical and Metal Div.	Eagle Picher
Don Heisel, Dept. Head of Institute of Government Research	University of Cincinnati
Orlan V. Herried, Office Manager	American Insurance Co.
George Keller, Executive Secretary	Cincinnati Insurance Board
William Korengel, Assistant Cashier	Central Trust Bank
Burnett Reed, Executive Manager	Cincinnati Industrial Inst.
Perry B. Wydman, Vice-President of Securities Department	First National Bank

BUSINESS MANAGEMENT
Course Descriptions

BM 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling and vocabulary. Analysis of each student's strengths and weaknesses.

BM 1002 COMMUNICATION SKILLS II 5 Hours per week

A continuation of Communication Skills I, stressing reading improvement, both rate and comprehension.

BM 1005 EFFECTIVE SPEAKING 5 Hours per week

Organization, development, and presentation of general speeches with emphasis on the oral report as a form of business communication.

BM 1006 TECHNICAL WRITING 5 Hours per week

Business letters with emphasis on various types according to their purposes. Some work with informal and formal reports.

BM 1007 EXPOSITORY WRITING 5 Hours per week

Organization and development of expository compositions, stressing logical and fallacious reasoning.

BM 1131 BUSINESS MATHEMATICS I 5 Hours per week

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.

BM 1132 BUSINESS MATHEMATICS II 5 Hours per week

Application of mathematics to trade discounts, markons, commissions, installment charges, freight expenses, corporate earnings, stocks and bonds, insurance, taxes, loans, and data process-systems of billing and inventory.

BM 1502 ECONOMICS 5 Hours per week

An introductory study of economic principles in the modern economic process. Scarcity, resource development, organization for production, over all output and composition of the economy, pattern of distribution. The circular flow of economic activity in relation to the problem of resources, technology, political and social institutions.

BM 1504 PRINCIPLES OF PSYCHOLOGY 5 Hours per week

A survey course designed to develop an understanding of basic principles underlying human behavior. Special emphasis is placed on motivation, perception, learning, intelligence, personality, and social interaction.

BM 1505 APPLIED PSYCHOLOGY 5 Hours per week

The principal applications of psychological findings and methods are of assistance in the understanding of interpersonal relations on the job. Techniques will include role playing and case studies in which various human factors are defined and analyzed.

BM 1700 SURVEY OF DATA PROCESSING
5 Hours per week

Quantification and allied methods of business management. Terminology and the basic concepts of automation. The history of punched card data processing, the development of computer systems, manual methods and stored programs are introduced.

BM 1802 PRINCIPLES OF GENERAL AND MULTIPLE LINE INSURANCE I 5 Hours per week

A study of the principles and practices of insurance including the economic, social and historical background. The need and uses of insurance.

BM 1803 PRINCIPLES OF GENERAL AND MULTIPLE LINE INSURANCE II 5 Hours per week

A continuation of Insurance I including legal principles, the insurance contract, insurers, underwriters and re-insurance.

BM 1823 BUSINESS LAW I 5 Hours per week

The legal framework of business for beginning students.

BM 1824 BUSINESS LAW II 5 Hours per week

A continuation of Business Law I with coverage of government regulations, trusts, and insurance.

BM 2901 PRINCIPLES OF MARKETING I 5 Hours per week

Details the principles and functions of marketing. The essential concepts of competition, demand, and the structure of distribution. The roles of marketing management and the marketing executives are emphasized.

BM 2902 PRINCIPLES OF MARKETING II
5 Hours per week

The analysis, interpretation, application, and forecasting of research findings in marketing management. The case study method is used in relating these techniques to actual marketing problems.

BM 2903 MARKETING III 5 Hours per week

Factors which influence the determination of price such as cost, demand, or legislation. The control of marketing programs. An evaluation of marketing costs.

BM 2904 SALES MANAGEMENT 5 Hours per week

The general management concept, including planning, organizing, actuating, controlling, and coordinating the activities of others to achieve established objectives and goals.

BM 2905 MONEY & BANKING 5 Hours per week

The processes of modern banking, including capital, deposits, loans, investments, and reserves. Credit expansion and contraction. The operation of the Federal Reserve system.

BM 2911 PRINCIPLES OF ACCOUNTING I
5 Hours per week

Principles and practices of basic accounting with practical application as related to other fields of business.

BM 2912 PRINCIPLES OF ACCOUNTING II
5 Hours per week

A continuation of Principles of Accounting I. Permits the student to solve accounting problems in supervised accounting labs.

BM 2913 INTERMEDIATE ACCOUNTING 5 Hours per week

The nature and formation of corporations and their methods of financing. Accounting for department and branch divisions of the parent corporation including branch operation financial statements - separately and combined with statements of the home office.

BM 2914 COST AND MANAGERIAL ACCOUNTING
5 Hours per week

The cost of manufacturing and processing including raw materials, goods in process, and finished products. The analysis of accounting data by management.

BM 2915 TAX ACCOUNTING 5 Hours per week

Nature of income taxes and their relationship to accounting. Gross income and filing requirements for individuals and corporations.

BM 2921 INTRODUCTION TO BUSINESS I
5 Hours per week

A broad concept of business and the development of an awareness of the economic framework which constitutes our capitalistic system.

BM 2922 INTRODUCTION TO BUSINESS II
5 Hours per week

Personnel functions, methods of finance, controls for decision making, and the legal and regulatory environment of business.

BM 2923 PRINCIPLES OF SALESMANSHIP
5 Hours per week

The personal and economic aspects of selling plus a general concept of what is necessary for success in selling, includes practical sales planning and presentations.

BM 2924 ORGANIZATION OF MANAGEMENT I

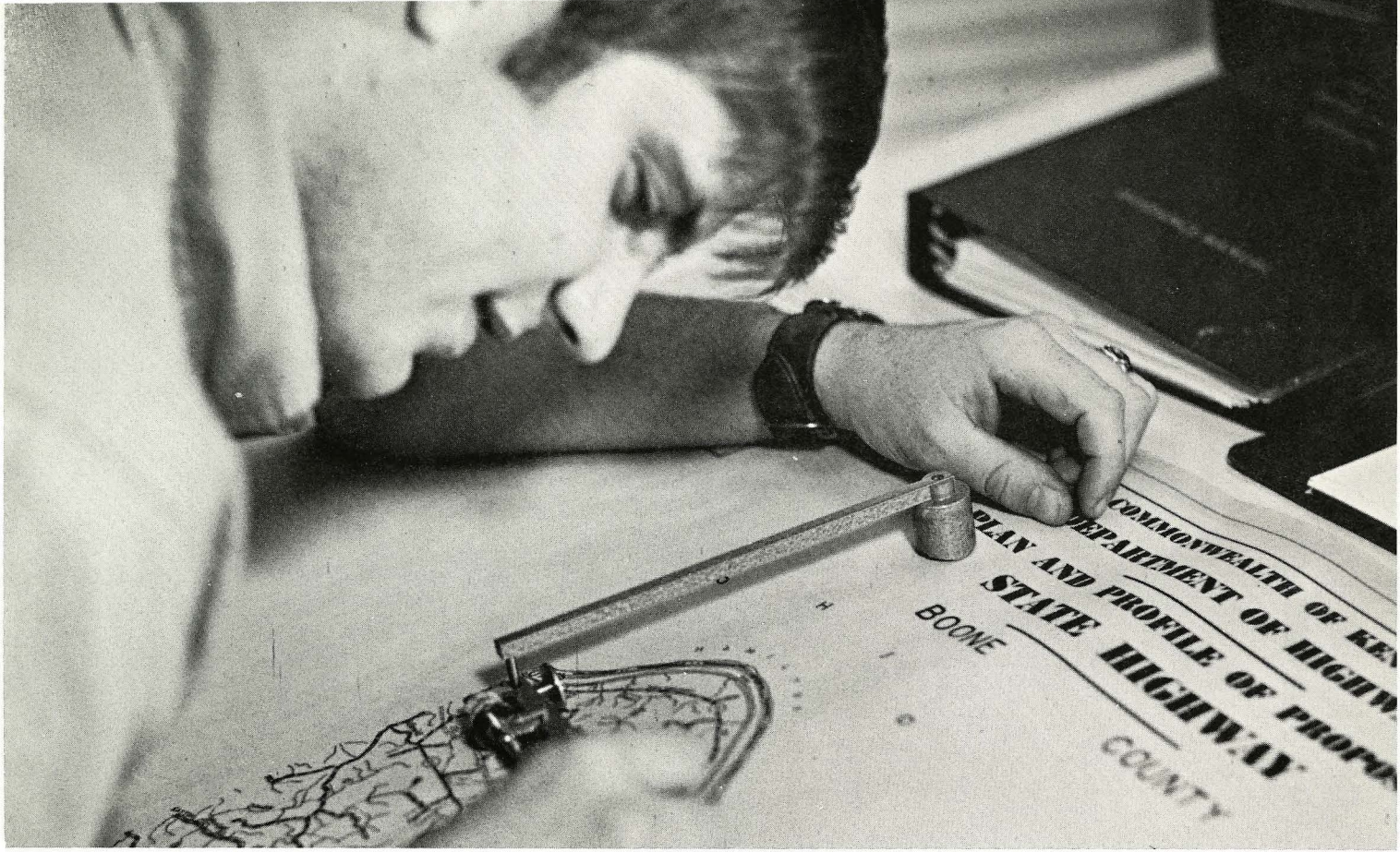
5 Hours per week

Formal and informal organizational structures including line and staff relationships indicating authority and responsibility.

BM 2925 ORGANIZATION OF MANAGEMENT II

5 Hours per week

The psychological areas of management with a study of procuring, processing, appraising and compensating executives.



CIVIL ENGINEERING TECHNOLOGY

CIVIL ENGINEERING TECHNOLOGY

The increasing complexity of modern structural designs requires well-trained technicians capable of handling construction problems. Civil engineers are in critical need of technicians who are able to prepare and verify construction specifications with a minimum of supervision.

CCST Civil Engineering students will make soil, concrete, water pollution, soil mineralogy, and percolation tests. Surveying duties will include such activities as marking off building sites, making plot plans, drafting proposed highways, making route surveys, and drafting topographic maps.

The curriculum is designed to give the student a technical knowledge necessary for effective craftsmanship and scientific management skills. Regular classroom instruction will be supplemented by laboratory experiments and site training.

The civil engineering technicians will, in most cases, be working with the top men in the field. Others may become part of a highly skilled team, whose joint effort is necessary to cope with today's increasingly complex equipment and construction.

Civil Engineering Technology offers an excellent opportunity for continued advancement to the individual seeking personal growth and development.

CIVIL ENGINEERING TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 1		Class	Lab.	Total
CE 1001	Communication Skills I	3	2	5
CE 1101	Technical Math I	5	0	5
CE 2201	Physics I	3	2	5
CE 3101	Engineering Graphics I	5	5	10
CE 3111	Surveying I	3	2	5
		19	11	30
1820	Cooperative Employment			
Term 2				
CE 1003	Communication Skills II	2	3	5
CE 1102	Technical Math II	5	0	5
CE 2202	Physics II	3	2	5
CE 3102	Engineering Graphics II	5	5	10
CE 3112	Surveying II	3	2	5
		18	12	30
1820	Cooperative Employment			
Term 3				
CE 1004	Technical Writing	3	2	5
CE 1103	Technical Math III	5	0	5
CE 2203	Physics III	2	3	5
CE 3103	Engineering Graphics III	0	5	5
CE 3106	Soil and Material Testing	2	3	5
CE 3113	Surveying III	3	2	5
		15	15	30
1820	Cooperative Employment			

CIVIL ENGINEERING TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 4		Class	Lab.	Total
CE 1104	Technical Math IV	5	0	5
CE 2204	Physics IV	2	3	5
CE 3104	Engineering Graphics IV	0	5	5
CE 3108	Highway Construction	5	0	5
CE 3109	Leadership and Engineering Problems	3	2	5
CE 3114	Surveying IV	5	0	5
		20	10	30
1820	Cooperative Employment			
Term 5				
CE 1005	Effective Speaking	2	3	5
CE 1105	Technical Math V	5	0	5
CE 3105	Engineering Graphics V	0	5	5
CE 3107	Construction Management & Estimating	2	3	5
CE 3110	Office Practice & Legal Procedures	3	2	5
CE 3115	Surveying V	0	5	5
		12	18	30
1820	Cooperative Employment			

CIVIL ENGINEERING TECHNOLOGY ADVISORY COMMITTEE

NAME	EMPLOYER
Francis Cornelius, Principal Public Works Construction Engineer	City Engineering Department
Roy Federle, Supervisor, Apprentice Training	Building Trade Council
Ed Harding, Jr., Assistant Manager	Allied Contractors
Charles Johnson, Director of Maintenance	Cincinnati Public Schools
Kent Rollins, Hamilton County Engineer	County Engineering Department

CIVIL ENGINEERING TECHNOLOGY
Course Descriptions

CE 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling, and vocabulary. Analysis of each student's strengths and weaknesses.

CE 1003 COMMUNICATION SKILLS II 5 Hours per week

A continuation of Communication Skills I, stressing expository writing skills.

CE 1004 TECHNICAL WRITING 5 Hours per week

Informal and formal written reports. Techniques for collecting and presenting data, particularly as they apply to industry. Some work with business letters.

CE 1005 EFFECTIVE SPEAKING 5 Hours per week

Organization, development and presentation of general speeches with emphasis on the oral report as of form of business and/or industrial communication.

CE 1101 TECHNICAL MATH I 5 Hours per week

Review of algebra and basic trigonometry. Foundation for technical math courses.

CE 1102 TECHNICAL MATH II 5 Hours per week

Descriptive and projected geometry.

CE 1103 TECHNICAL MATH III 5 Hours per week

Concentration on trigonometry and introduction to calculus.

CE 1104 TECHNICAL MATH IV 5 Hours per week

Analytical geometry and calculus related to field problems.

CE 1105 TECHNICAL MATH V 5 Hours per week

Linear functions, derivatives, applications of the derivative, derivative of trigonometric functions, logarithmic functions.

CE 2201 PHYSICS I 5 Hours per week

Light, heat and sound as applied to sound acoustics. Heat expansion and contraction of building materials and highway materials. Pitfalls in joining materials of unlike molecular constituents.

CE 2202 PHYSICS II 5 Hours per week

Basic industrial electricity. Fundamental laws, analysis of direct and alternating currents, basic theory of magentism, meters, and components.

CE 2203 PHYSICS III 5 Hours per week

The relation between first and second laws of motion, mass and weight, gravitational and inertial masses, frictional forces, and third law of motion.

CE 2204 PHYSICS IV 5 Hours per week

Strengths of materials: tubular, cylindrical, I-beams, cables, etc.

CE 3101 ENGINEERING GRAPHICS I 10 Hours per week

Use of drafting instruments, lettering, line work with orthographic projections, auxiliary views, freehand sketching, and projection of viewed sketches to scaled drawings.

CE 3102 ENGINEERING GRAPHICS II 10 Hours per week

Continuation of Engineering Graphics I with greater stress on precision dimensioning, sectional views, auxiliary views, fasteners, welding drawings, production drawings and production operations.

CE 3103 ENGINEERING GRAPHICS III 5 Hours per week

Application of drafting practices. Pictorial drawing, sketching, architectural drafting and structural drawing.

CE 3104 ENGINEERING GRAPHICS IV 5 Hours per week

Map drawing, plat development, plot planning and geometric development. Graphs and charts.

CE 3105 ENGINEERING GRAPHICS V 5 Hours per week

Simplified drafting, patent drawing, reproduction of drawing. Case study on actual projects in and around the Cincinnati area.

CE 3106 SOIL MATERIAL AND TESTING
5 Hours per week

Fundamental laws of strength of materials. Theory and applications. Basic concepts of instrumentation and measuring stressing concrete mixes, stone and sand, reinforcing steel and uses for mesh, and curing of concrete.

CE 3107 CONSTRUCTION MANAGEMENT AND ESTIMATING 5 Hours per week

Field trips to job sites and equipment distributors. Training in "take-off" and development of estimating and pricing.

CE 3108 HIGHWAY CONSTRUCTION 5 Hours per week

Supervision of construction. Earthwork operations and equipment. Design and drainage.

CE 3109 LEADERSHIP AND ENGINEERING PROBLEMS
5 Hours per week

Problems of management from the viewpoint of plant development and expansion. Introduces data processing use case study to systematically approach finance labor problems.

CE 3110 OFFICE PRACTICE AND LEGAL PROCEDURES
5 Hours per week

The organization and financing of business enterprises. Business law; interpretation of contracts. Basic understanding of computer data processing.

CE 3111 SURVEYING I — 5 Hours per week

Introduction to transit and level. The tripod sketching board. Locating an object from bench marks. Translation and interpretation of notes. Assembly, disassembly, and care of instruments.

CE 3112 SURVEYING II — 5 Hours per week

Run lines to establish boundaries and elevations. Lay out construction sites. Abbreviations and symbols. ASA standards.

CE 3113 SURVEYING III — 5 Hours per week

Physical use of instruments in field surveys and drawing field problems on board. Freehand lettering. Principles of linear programming.

CE 3114 SURVEYING IV — 5 Hours per week

Field problems, board work, coordination of all branches of design to main structure.

CE 3115 SURVEYING V — 5 Hours per week

Subject matter considered from viewpoint of superintendent. Types of foundations, piers, piles. Highway materials and construction, including design and drainage.

CLINICAL TECHNOLOGY

CLINICAL TECHNOLOGY

Present health personnel and facilities are being called upon to provide increased health care services. Additional members of the health-care team are needed now to fill critical positions; it is estimated that by 1975 the health field will be the largest field of employment in the United States.

The Clinical Technology program offers a unique opportunity to obtain a well-rounded education in the health technology field. Working under the direction of a committee of the Cincinnati Academy of Medicine, the CCST faculty provide general health career education first - followed by specialized education in several areas.

Further specialization is provided in the cooperative work experience program. Working in hospitals, laboratories, or directly under the supervision of the physician, the student may specialize in ward management, laboratory assisting, health technology, or pharmacy technology. As the program expands, additional specialities will become available.

The Clinical Technology program is open to men and women. Upon graduation, the Clinical Technician may continue to serve in his specialized field or use the knowledge and skills acquired as a basis for further education and advancement.

CLINICAL TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 1		Class	Lab.	Total
CT 1101	Business Mathematics	5	0	5
CT 1801	Clinical Office Practice	2.5	2.5	5
CT 2701	Clinical Technology I	10	5	15
CT 2711	Clinical Laboratory I	1	4	5
		18.5	11.5	30
1820	Cooperative Employment			

Term 2				
CT 1001	Communication Skills I	5	0	5
CT 1102	Clinical Mathematics	3	2	5
CT 2702	Clinical Technology II	10	5	15
CT 2712	Clinical Laboratory II	1	4	5
		19	11	30
1820	Cooperative Employment			

Term 3				
CT 1501	Clinical Psychology	5	0	5
CT 1802	Clinical Office Practice	2.5	2.5	5
CT 2703	Clinical Technology III	10	5	15
CT 2901	Business Management	5	0	5
		22.5	7.5	30
1820	Cooperative Employment			

Term 4				
CT 1003	Communication Skills II	5	0	5
CT 1502	Modern Social Issues	5	0	5
CT 2704	Clinical Technology IV	10	5	15
CT 2714	Clinical Laboratory III	2	3	5
		22	8	30
1820	Cooperative Employment			

CLINICAL TECHNOLOGY
CURRICULUM

Term 5		HOURS PER WEEK Class	Lab.	Total
CT 1700	Data Processing	1.25	1.25	2.5
CT 1803	Clinical Office Administration	5	0	5
CT 1901	Clinical Electronics	1.25	1.25	2.5
CT 2705	Clinical Technology V	10	5	15
CT 2715	Clinical Laboratory IV	2	3	5
		19	10.5	30
1820	Cooperative Employment			

1st year 2nd Year

Session	Sept	Nov	Jan	Apr.	June	Sept	Nov	Jan	Apr	June
"A"	I	E	II	E	III	E	IV	E	V	E
"B"	E	I	E	II	E	III	E	IV	E	V

I, II, III, IV, V - academ. term

E - employment

CLINICAL TECHNOLOGY
ADVISORY COMMITTEE *

NAME	EMPLOYER
Dr. Walter Engel, General Practitioner	Private Practice
Dr. William R. Graf, General Practitioner	Private Practice
Dr. Sander Goodman, Chief of Staff	Jewish Hospital
Dr. Raymond Hilsinger, Ear, Nose & Throat Specialist	Private Practice
Dr. John Wulsin, Head of Surgical Department	University of Cincinnati Medical School

*Other professional groups are consulted as needed.

CLINICAL TECHNOLOGY
Course Descriptions

CT 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling, and vocabulary. Analysis of each student's strengths and weaknesses.

CT 1003 COMMUNICATION SKILLS II 5 Hours per week

A continuation of Communication Skills I, stressing expository writing skills.

CT 1101 BUSINESS MATH 5 Hours per week

Arithmetic skills and processes needed for effective office performance. Basic processes, fractions, and percentages. Special emphasis on preparation of payrolls, insurance, taxes, business records, bookkeeping, and accounting.

CT 1102 CLINICAL MATHEMATICS 5 Hours per week

Basic mathematics needed for courses in health science, pharmacology, and chemistry.

CT 1501 CLINICAL PSYCHOLOGY 5 Hours per week

Personal psychology, patient psychology, and psychology of management.

CT 1502 MODERN SOCIAL ISSUES 5 Hours per week

Social issues and their relation to the health field.

CT 1700 DATA PROCESSING 2.5 Hours per week

An overview of the data processing field, with some machine operation.

CT 1801 CLINICAL OFFICE PRACTICE I
5 Hours per week

Fundamental skills in the operation of a typewriter by touch, introduction to and review of shorthand, filing and records control.

CT 1802 CLINICAL OFFICE PRACTICE II
5 Hours per week

Continuation of the development of typing and shorthand skills, and development of proficiency in medical transcription and medical shorthand.

CT 1803 CLINICAL OFFICE ADMINISTRATION
5 Hours per week

Clerical and general management skills in a position of supervision in a doctor's office or clinic. Introduction to business machines found in hospitals and doctor's offices. Management skills will be broadened by case studies in health management.

CT 1901 CLINICAL ELECTRONICS 2.5 Hours per week

Minor repair techniques for standard hospital equipment. Reading technical manuals. Introduction to automated clinical laboratory equipment.

CLINICAL TECHNOLOGY (cont.)

CT 2701 CLINICAL TECHNOLOGY I 15 Hours per week

A. The role of the Clinical Technician in the allied health fields.

B. Medical Terminology I - Vocaulary and terms used by medical personnel.

CT 2701 CLINICAL TECHNOLOGY I (cont.)

C. Anatomy & Physiology - Structure and function of the human body.

D. Patient Care I - Principles of in patient care procedures.

CT 2702 CLINICAL TECHNOLOGY II 15 Hours per week

A. Patient Care II - A continuing study of the principles and skills in patient care procedures.

B. Pharmacology - Therapeutic uses, doses and properties of drugs. Introduction to pharmaceutical catalogues.

C. Medical Office Assisting - Medical office procedures. Performance of routine physical exams.

CT 2703 CLINICAL TECHNOLOGY III 15 Hours per week

A. First aid and emergency procedures. - Theoretical and practical training in first aid.

B. Medical Terminology II - Vocabulary and terms used by medical personnel.

C. Assisting the Specialist - A study of the various areas of medical specialization, with emphasis on the adaptation of basic office assisting techniques.

D. Unit Managing - The non-patient care functions on patient units.

CT 2704 CLINICAL TECHNOLOGY IV 15 Hours per week

A. Clinical Records Procedures - Medical records, insurance forms, general office procedures and admissions forms.

B. X-Ray Technology - Preparation for, basic use of, and self-protection involved in the use of X-Ray equipment.

C. Microbiology - Microrganisms and how they cause disease; their growth and control.

D. Unit Managing - The non-patient care functions on patient units.

CT 2705 CLINICAL TECHNOLOGY V 15 Hours per week

A. Clinical Research Techniques - Basic research techniques used in allied health fields.

B. Clinical Technology Research Projects - Research projects in clinical areas decided upon by the majority of the class members. An opportunity for pursuing special areas of interest.

C. Operating Room Procedures - Techniques of ordering supplies, maintaining equipment, and serving as an assistant in the operating room.

CT 2711 CLINICAL LABORATORY I 5 Hours per week

A laboratory course designed to accompany the material being studied in Clinical Technology I.

CLINICAL TECHNOLOGY (cont.)

CT 2712 CLINICAL LABORATORY II 5 Hours per week

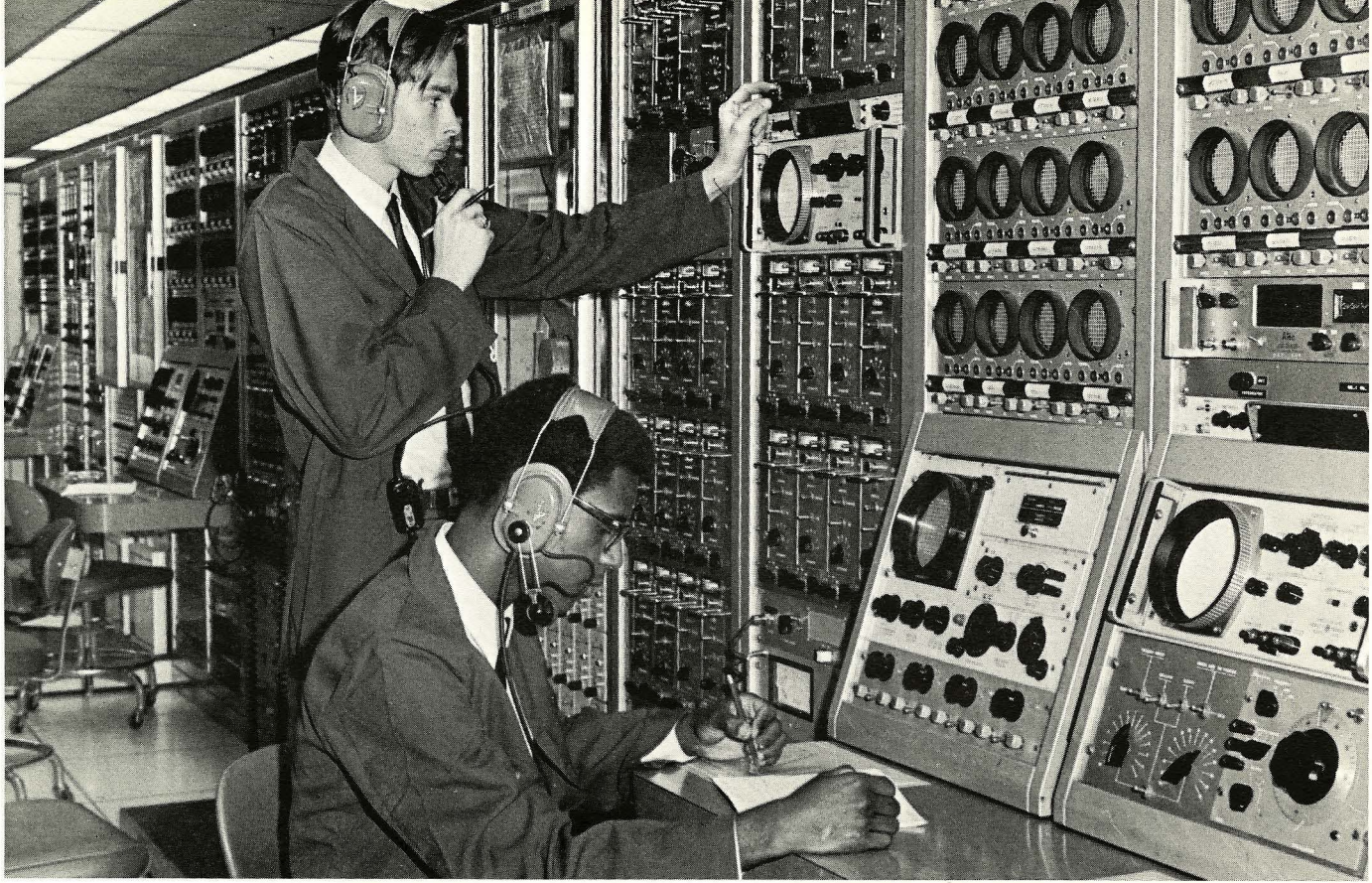
A laboratory course designed to accompany the material being studied in Clinical Technology II.

CT 2714 CLINICAL LABORATORY III 5 Hours per week

A laboratory course designed to accompany the material being studied in Clinical Technology IV.

CT 2715 CLINICAL LABORATORY IV 5 Hours per week

A laboratory course designed to accompany the material being studied in Clinical Technology V.



ELECTRONICS TECHNOLOGY

ELECTRONICS TECHNOLOGY

The increasing automation of industrial processes and the technical ability to produce more and more useful devices employing electronics generate demands for electronics technicians which cannot be filled by the trained personnel now available. Working as a valuable member of the engineering team, the electronics technician assists the engineer in designing and testing processes and devices. Electronics technicians typically are assigned to fabrication, testing and evaluation, calculating and recording data, and troubleshooting. The electronics technician uses specialized instruments, meters, oscillographs, signal generators, counters, and other devices in his work.

Students in the Electronics Technology program in meeting their cooperative work experience requirements, are trained in companies which produce machine tools, jet engines, radar, radio, telephone instruments, and other products. Most graduates will elect to continue working for companies which have employed them as co-op students. Many will continue their educations in advanced company-sponsored training programs.

ELECTRONICS TECHNOLOGY CURRICULUM

Term 1		HOURS PER WEEK Class	Lab.	Total
EL 1001	Communication Skills I	5	0	5
EL 1101	Mathematics I	3	2	5
EL 1901	Electricity Technology	5	10	15
EL 2201	Physics I	2	3	5
		15	15	30
1820	Cooperative Employment			

Term 2				
EL 1003	Communication Skills II	5	0	5
EL 1102	Mathematics II	5	0	5
EL 1915	Electronics Drafting	1	4	5
EL 1902	Electronics Technology I	3	7	10
EL 2202	Physics II	3	2	5
		17	13	30
1820	Cooperative Employment			

Term 3				
EL 1503	Industrial Psychology	5	0	5
EL 1903	Electronics Technology II	4	11	15
EL 1910	Machinery I	3	2	5
EL 1912	Survey Machine Tool Operation	3	2	5
		15	15	30
1820	Cooperative Employment			

Term 4				
EL 1004	Technical Writing	3	2	5
EL 1103	Mathematics III	3	2	5
EL 1502	Economics	4	1	5
EL 1911	Machinery II	3	2	5
EL 1904	Electronics Technology III	2	8	10
		14	16	30
1820	Cooperative Employment			

ELECTRONICS TECHNOLOGY
CURRICULUM

Term 5		HOURS PER WEEK Class	Lab.	Total
EL 1005	Effective Speaking	2	3	5
EL 1501	Human Relations	3	2	5
EL 1905	Electronics Technology IV	5	10	15
EL 2203	Hydraulics	2	3	5
		12	18	30
1820	Cooperative Employment			

ELECTRONICS TECHNOLOGY
ADVISORY COMMITTEE

NAME	EMPLOYER
Gary Graf, Supervisor of Management and Technical Education	Cincinnati Milling Machine Co.
Vic Pareece, Supervisor of Management and Technical Education	American Telephone and Telegraph Co.
Warren G. Rhodes, Consultant, Education Relations Service	General Electric Co.
Clay Strider, Specialist, Education and Training	General Electric Co.
Art Wehrman, Employment Supervisor	Cincinnati Bell Telephone Co.

ELECTRONICS TECHNOLOGY
Course Descriptions

EL 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling and vocabulary. Analysis of each student's strengths and weaknesses.

EL 1003 COMMUNICATION SKILLS II 5 Hours per week

Continuation of Communication Skills I, stressing specific writing and speaking skills for business and industry.

EL 1004 TECHNICAL WRITING 5 Hours per week

Informal and formal reports. Techniques for collecting and presenting data, particularly as they apply to industrial electronics.

EL 1005 EFFECTIVE SPEAKING 5 Hours per week

Organization, development, and presentation of general speeches with emphasis on the oral report as a form of industrial communication.

EL 1101 MATH I 5 Hours per week

Review of arithmetic, percentage, and numerical geometry. Algebra, special products and factoring, fractions and complex fractions, linear equations, exponents, radicals, ratio, proportion and variation, logarithm, charts, and graphs.

EL 1102 MATH II 5 Hours per week

Trigonometry of the right triangle. Solution of oblique triangle. Functions and their graphical solution. Quadratic equations. Inequalities. Arithmetic and geometric progressions. Permutations combinations. Probability.

EL 1103 MATH III 5 Hours per week

Problems in electricity. Ohms Law, power, D. C. circuits, measurements, relative error, tolerance, sine wave, phase angle, power factor, A. C. circuits, inductance, capacitance, magnetic circuits.

EL 1501 HUMAN RELATIONS 5 Hours per week

Principles of human behavior. Problems of the individual studied in relation to society, group membership, and relationships within the work situation. Development of effective motivation, communication, attitudes, supervision and leadership.

EL 1502 ECONOMICS 5 Hours per week

Economic principles in the modern economic process. Content includes: scarcity concept, resource development, organization for production, overall output and composition of the economy, and pattern of distribution. The circular flow of economic activity is studied in relation to the problems of resources, technology, and political and social institutions.

EL 1503 INDUSTRIAL PSYCHOLOGY 5 Hours per week

Behavior as it occurs in business and industry. Behavior of workers, management, and consumers. Direct application of psychological principles to assist with inter-personal problems. Techniques include role playing and case studies.

EL 1901 ELECTRICITY TECHNOLOGY 15 Hours per week

Electrical phenomena and their application to industrial electricity and electronics. Electron Theory, D. C. circuits, ohms and Kirchhoffa laws, series and parallel circuits, magnetism, inductance, capacitance, impedance, A. C. circuits, resonance, superposition theorem, Thevinin's Theorem, Norton's Theorem, networks, electrical measuring instruments and measurements.

Use of voltmeter, ohmeter, millimeter and oscilloscope for circuit measurements. D. C. circuit experiments involving Ohms and Kirchhoffs laws, design of volt-ohm-millimeter, A. C. experiments and measurements including impedance and resonance.

EL 1902 ELECTRONICS TECHNOLOGY I
10 Hours per week

Solid state theory, germanium and silicon diodes, thermonic emission, diodes, transistor characteristics and transistor circuits, vacuum tube characteristics and vacuum tube circuits, lead lines analysis of rectifiers, amplifiers, detectors, phase invents and oscillations, electronic measurements.

EL 1902 ELECTRONICS TECHNOLOGY I (cont.)

Vacuum tube voltmeter, volt-ohm-millimeter, oscilloscope audio generator and other test instruments in vacuum tube and transistor circuit measurements. Experiments include characteristics of vacuum tubes and transistors, rectifiers, amplifiers, detectors, phase inventors and oscillators.

EL 1913 ELECTRONICS TECHNOLOGY II

15 Hours per week

Rectifiers, amplifiers, detectors, phase inventions, oscillators, transistor multivibrators, sawtooth generators, integrated circuits, resistor transistor logic circuits, one shot multivibrator, and Schmitt triggers and ramp function generator circuits.

Laboratory transistor multivibrators. Sawtooth generators, integrated circuits and logic circuits.

EL 1904 ELECTRONICS TECHNOLOGY III

10 Hours per week

Basic building block circuits used in electronic control of industrial processes. Gaseous electron tubes including diode, thyratron and myraton control circuits.

Silicon controllers rectifiers (SRC): phototubes; photo-transistors; relays; electronic motor controls; light and heat control; time-delay circuits; poly-phase rectifiers; magnetic devices.

EL 1904 ELECTRONICS TECHNOLOGY III (cont.)

Circuit tests and measurements in experiments dealing with thyratron characteristics and control, phototube circuit tests, relay circuits and measurements, and motor control circuit study.

EL 1905 ELECTRONICS TECHNOLOGY IV

15 Hours per week

Tone and radio control systems, synchros and servomechanism, and computer circuit fundamentals.

Construction of circuits and test measurements of tone and radio control systems, computer circuits, characteristics, of selsyn and syncho systems. Instruments used are: oscilloscope VTVM, VOM, sine and square wave generator, r-f generator, and strodoscopic tachometer.

EL 1910 MACHINERY I 5 Hours per week

Theory, characteristics and maintenance of D.C. motors and generators. Magnetic controllers and control circuits. Motor and generator principles, dynamic braking, Ward Leonard System.

Experiments on and tests of D. C. motors and generators. Use of voltmeter, ammeter, ohmeter, wattmeter, wheatstone bridge and strobotach; design and characteristics of shunt and compound motors and generators manual and magnetic startions, dynamic braking, and dynamonmeter methods of testing.

EL 1911 MACHINERY II 5 Hours per week

Theory, characteristics and maintainence of A.C. motors and alternators. Principles of A. C. machinery, rotating magnetic fields, alternators, single phase and polyphase alternators and motors, magnetic controllers, design of armature winding, electrical measurements in machinery and maintenance.

Experiments on and tests of A. C. motors and alternators. Measurement of A. C. current voltage and power. The oscilloscope, synchroscope and strobotach are employed in measurements of characteristics, phase, and speed. Experiments include: circuit study and characteristics of single phase, two phase and three phase alternators with inductive and non-inductive load, rotary convertors, transformer testing, and performance characteristics of magnetic amplifiers.

EL 1912 SURVEY MACHINE TOOL OPERATION
5 Hours per week

Standard and special portable tools and equipment used in installation, change-over, maintenance of units requiring metal cutting and unit alignment.

Material processing and conversion power machinery and inspection equipment. Automatic feeds, repetitive automatic precision machining, and automation setups.

EL 1915 ELECTRONIC DRAFTING 5 Hours per week

The schematic diagram and its concomitant wiring diagrams, printed circuit boards, pictorial assembly drawings. Graphs, nomographs and characteristic curves.

EL 2201 PHYSICS I 5 Hours per week

Physical measurements and units, vectors, forces and equilibrium, motion of a particle, force and motion, work, energy, and power, circular motion, harmonic motion, fluids at rest, fluids in motion, properties of matter, rotational motion, temperature, heat, and work, Kinetic theory of matter, change of phase, transfer of heat, heat engines. Laboratory experiments illustrating the above theories.

EL 2202 PHYSICS II 5 Hours per week

Wave motion, vibration and sound, light and its measurements, reflection and refraction, lenses and mirrors, optical instruments, light as wave motion, magnetism, electrostatics, capacitors, the electric circuit, electromagnetism, alternating currents, foundations of atomics and nucleonics. Laboratory experiments illustrating the above theories.

EL 2203 HYDRAULICS 5 Hours per week

General treatment of the basic components of hydraulic systems. Basic laws and formulas. Pumps, control valves, control assemblies, actuators, the use of the J. I. C. standard hydraulic symbols, and maintenance procedures.

EXECUTIVE SECRETARIAL TECHNOLOGY

EXECUTIVE SECRETARIAL TECHNOLOGY

Secretaries are essential to business, industry, government, and the professions. The demand for good secretaries far exceeds the supply; thus, 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 classrooms and laboratories of CCST 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 operation of office management.

The cooperative work experience program provides real, practical, work experience early in the career of the executive secretary. Upon graduation, students in the Executive Secretarial Technology program will have two years of education—and work experience in one of Cincinnati's major firms.

EXECUTIVE SECRETARIAL TECHNOLOGY CURRICULUM

Term 1		HOURS PER WEEK Class	Lab.	Total
ES 1005	Effective Speaking	2	3	5
ES 1506	Self-Improvement Workshop	2	3	5
ES 1821	Introduction to Business	5	0	5
ES 3001	Beginning Typewriting	2	3	5
ES 3011	Beginning Shorthand	2	3	5
ES 3021	Office Procedures and Techniques	2	3	5
		15	15	30
1820	Cooperative Employment			
Term 2				
ES 1001	Communication Skills I	3	2	5
ES 1524	Business Human Relations	5	0	5
ES 3002	Intermediate Typewriting	2	3	5
ES 3012	Intermediate Shorthand	2	3	5
ES 3022	Office Machines I	1	4	5
ES 3032	Filing and Records Management	2	3	5
		15	15	30
1820	Cooperative Employment			
Term 3				
ES 1002	Communication Skills II	3	2	5
ES 1131	Business Math I	2	3	5
ES 1823	Business Law	3	2	5
ES 3003	Advanced Typewriting	1	4	5
ES 3013	Advanced Shorthand	2	3	5
ES 3023	Office Machines II	1	4	5
		12	18	30
1820	Cooperative Employment			

EXECUTIVE SECRETARIAL TECHNOLOGY CURRICULUM

Term 4		HOURS PER WEEK Class	Lab.	Total
ES 1006	Technical Writing	3	2	5
ES 1132	Business Math II	2	3	5
ES 1843	Accounting Principles I	2	3	5
ES 3014	Dictation and Transcription I	3	7	10
ES 3024	Secretarial Procedures	2	3	5
		12	18	30
1820	Cooperative Employment			

Term 5				
ES 1009	Business English	5	0	5
ES 1512	Principles of Economics	5	0	5
ES 1700	Survey of Data Processing	2	3	5
ES 1844	Accounting Principles II	2	3	5
ES 3015	Dictation and Transcription II	3	7	10
		17	13	30
1820	Cooperative Employment			

EXECUTIVE SECRETARIAL TECHNOLOGY
ADVISORY COMMITTEE

NAME	EMPLOYER
Roger Engstrand, Operations and Planning Officer	Proctor and Gamble Co.
Larry Klems, Manager, Linn Street Branch	Provident Bank
Forest Lumbaer, Vice-President	Shillito's
Harry Martin, Coordinator, Model City Plan	City of Cincinnati
Eileen Robinson, Supervisor, Typewriting Pool	Proctor and Gamble Co.
Father James E. Shappelle, Assistant Superintendent of Schools	Catholic School Board of the Archdiocese of Cincinnati
Penn Z. Zeigler, President	Major Federal Savings & Loan Association of Cincinnati

EXECUTIVE SECRETARIAL TECHNOLOGY
Course Descriptions

ES 1001 COMMUNICATION SKILLS I — 5 Hours per week

Improvement of self-expression and grammar. The approach is functional with emphasis on grammar, sentence structure, punctuation, spelling, and composition.

ES 1002 COMMUNICATION SKILLS II — 5 Hours per week

Designed to improve both reading speed and comprehension. Practice in scanning, finding essential ideas, association of ideas, analysis of reading defects and vocabulary work.

ES 1005 EFFECTIVE SPEAKING — 5 Hours per week

The efficient organization and presentation of thoughts related to job-connected problems. Basic concepts and principles of oral communication which enable the student to communicate effectively with others. Attitude, diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation.

ES 1006 TECHNICAL WRITING — 5 Hours per week

Sales letters, business reports, summaries of business conferences; letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances, and inquiries.

ES 1009 BUSINESS ENGLISH 5 Hours per week

Spelling and defining commonly-used prefixes, suffixes, root words and their combining forms. Vocabulary, pronunciation, and definitions.

ES 1131 BUSINESS MATHEMATICS 5 Hours per week

Addition, subtraction, multiplication and division of whole numbers and common and decimal fractions. Manipulation and application of per cent as applied to business problems.

ES 1132 BUSINESS MATHEMATICS II 5 Hours per week

Continuation of mathematics applied to business. Statistical methods, simple and compound interest.

ES 1506 SELF IMPROVEMENT WORKSHOP
5 Hours per week

The physical, intellectual, social and emotional dimensions of personality. Grooming and methods of personality improvement. Remedial and clinical work carried on largely in individual consultation or in carefully selected small groups. Stress is placed on growth in poise and confidence in each student.

ES 1512 PRINCIPLES OF ECONOMICS 5 Hours per week

Basic economics with attention to central problems of price, competition and money; supply and demand; business organizations; firm and family income, labor and industrial relations; government and the economy; gross national product; relationship of income to expenditures; business cycles.

ES 1524 BUSINESS HUMAN RELATIONS 5 Hours per week

Relationships to other persons. Basic principles of human psychology. The problems of the individual and his work situation in relation to the established organization of modern business and industry and in relation to governmental practices and labor organizations, with special emphasis on the operating responsibilities of good management.

ES 1700 SURVEY OF DATA PROCESSING
5 Hours per week

Terminology and basic concepts of automation. History of punched card data processing, the development of computer systems, the manual methods and the stored program are introduced.

ES 1821 INTRODUCTION TO BUSINESS 5 Hours per week

Structure of various types of business organizations. Methods of financing, internal organization, and management.

ES 1823 BUSINESS LAW 5 Hours per week

Treatment of fundamental principles of business law, including contracts, negotiable instruments, and agencies.

ES 1843 ACCOUNTING PRINCIPLES I 5 Hours per week

Treatment of general accounting, providing necessary foundation for the interpretation of records. Studies include the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments.

ES 1844 ACCOUNTING PRINCIPLES II 5 Hours per week

Interpretation, analysis and utilization of accounting statements. The basic principles, methods, and procedures for preparation.

ES 3001 BEGINNING TYPEWRITING 5 Hours per week

An introduction to touch typewriting with emphasis on correct techniques and mastery of the keyboard. Meets the needs of students who have previously had typewriting needing a term of remedial practice on correct techniques with emphasis on simple business correspondence, tabulation and manuscripts.

ES 3002 INTERMEDIATE TYPEWRITING

5 Hours per week

Develops increased speed, a better control of the machine and a working knowledge of business papers. Emphasis is placed on production typing problems. Speed building attention is given to the development of the student's ability to produce mailable copies. The production units are tabulation, manuscripts, correspondence and business forms.

ES 3003 ADVANCED TYPEWRITING 5 Hours per week

Improvement of individual production rates. Planning and typing projects that closely approximate various fields of study. Review of letter forms, methods of duplication, statistical tabulations, reports, manuscripts, and legal documents.

ES 3011 BEGINNING SHORTHAND 5 Hours per week

Gregg Diamond Jubilee Shorthand, with emphasis on mastery of brief forms and word building principles. A beginning course in the theory and practice of reading and writing shorthand.

ES 3012 INTERMEDIATE SHORTHAND 5 Hours per week

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

ES 3013 ADVANCED SHORTHAND 5 Hours per week

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

EXECUTIVE SECRETARIAL TECHNOLOGY (cont.)

ES 3014 DICTATION AND TRANSCRIPTION I
5 Hours per week

Taking dictation and transcribing at the typewriter. Review of theory and dictation of familiar and unfamiliar material at varying rates of speed.

ES 3015 DICTATION AND TRANSCRIPTION II
5 Hours per week

Development of expert dictation speed. Integration of office-style dictation. High speed transcription according to office standards.

ES 3021 OFFICE PROCEDURES AND TECHNIQUES
5 Hours per week

Office organization, duties of office workers, personal qualifications, office problems and their solutions.

ES 3022 OFFICE MACHINES I 5 Hours per week

A general survey of business and office machines. Techniques, processes, operation, and applications of office machines.

ES 3023 OFFICE MACHINES II 5 Hours per week

Duplicating equipment and dictating and transcribing machines.

ES 3024 SECRETARIAL PROCEDURES 5 Hours per week

Responsibilities encountered by a secretary during the work day. Receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, and office organization.

ES 3032 FILING AND RECORD MANAGEMENT
5 Hours per week

Principles and procedures used in organization and control of records. Transfer, storage and retention.

GRAPHIC COMMUNICATIONS TECHNOLOGY

GRAPHIC COMMUNICATIONS TECHNOLOGY

The influence of printing radiates through all the fields of endeavor known to man; the printed word is necessary to sustain our civilization and to support social, educational, technological, and commercial growth. As society becomes more complex, more communication via printing becomes increasingly important.

At CCST, modern computerized typesetting equipment, high speed letterpress and offset presses, excellent ancillary equipment, and expert instruction combine to provide a quality graphic arts program.

Although each Graphic Communications student masters all of the major modern graphic arts processes, the scope of the program is not limited to the development of craftsmanship. Technicians in a dynamic, growing industry constantly address themselves to new problems. The Cincinnati Cooperative School of Technology Graphic Communications program provides the scientific and technical knowledge necessary to resolve those problems.

As important as they are, craftsmanship and scientific-technical knowledge do not fully describe the Graphic Communications program. The graphic arts industry urgently requires mid-management personnel. Courses in Human Behavior, Effective Speaking, Business Law, etc., provide the management skills necessary for mid-management positions in shop leadership, estimating, producting planning, and cost control.

GRAPHIC COMMUNICATIONS TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 1		Class	Lab.	Total
GC 1001	Communication Skills I	5	0	5
GC 1111	Mathematics for Printers	5	0	5
GC 1401	Layout and Design	2.5	0	2.5
GC 1402	Typography	5	5	10
GC 1450	Estimating	5	0	5
GC 1512	Economics I	2.5	0	2.5
		25	5	30
1820	Cooperative Employment Program			
Term 2				
GC 1002	Communication Skills II	5	0	5
GC 1405	Proofreading and Copy Preparation	2.5	0	2.5
GC 1410	Machine Composition	5	5	10
GC 1460	Bindery Methods and Procedure	2.5	2.5	5
GC 1513	Economics II	2.5	0	2.5
GC 2201	Printing Science I (Chem)	5	0	5
		22.5	7.5	30
1820	Cooperative Employment Program			
Term 3				
GC 1005	Effective Speaking	2.5	0	2.5
GC 1007	Expository Writing	5	0	5
GC 1415	Graphic Arts Processes	2.5	0	2.5
GC 1420	Electronic Processes	2.5	0	2.5
GC 1421	Cold Type Processes	5	5	10
GC 1524	Human Behavior	2.5	0	2.5
GC 2202	Printing Science II (Physics)	5	0	5
		25	5	30
1820	Cooperative Employment Program			

GRAPHIC COMMUNICATIONS TECHNOLOGY
CURRICULUM

		HOURS PER WEEK		
Term 4		Class	Lab.	Total
GC 1004	Technical Writing	2.5	0	2.5
GC 1419	Survey of Graphic Communications I	2.5	0	2.5
GC 1430	Press Work	5	5	10
GC 1480	Photolithography I	2.5	2.5	5
GC 1823	Business Law I	5	0	5
GC 1843	Accounting I	5	0	5
		22.5	7.5	30
1820	Cooperative Employment Program			
Term 5				
GC 1428	Survey of Graphic Communications II	2.5	0	2.5
GC 1440	Offset Press Operation	5	7.5	12.5
GC 1481	Photolithography II	5	0	5
GC 1824	Business Law II	5	0	5
GC 1845	Printing Cost Accounting	5	0	5
		22.5	7.5	30
1820	Cooperative Employment Program			

GRAPHIC COMMUNICATIONS TECHNOLOGY
ADVISORY COMMITTEE

NAME	EMPLOYER
William Bell, Vice President	Standard Publishing Co.
William Bedinghaus, President	Bedinghaus Business Forms
Harry Brinkman, President	Cincinnati Lithographers
Mel Brower, President	Melbro Color Service
James Burton, President	Johnston Paper Co.
Larry Cherricosta, Production Manager	Stockton, West, Burkhardt
Charles Dye, Jr., Treasurer	Quality Electrotype
Carl Ford, President	J. W. Ford Company
Norb Giver, President	Volts-Thomas Printing Co.
Edward Kobman, Supervisor	Gibson Greeting Card Co.
Wilbert Rosenthal, President	S. Rosenthal Co.
Hal Stearne, Production Manager	S. Rosenthal Co.
James Wood, Superintendent of Offset Pressroom	Standard Publishing Co.

GRAPHIC COMMUNICATIONS TECHNOLOGY
Course Descriptions

GC 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling, and vocabulary. Analysis of remedial assignments. Strengths and weaknesses.

GC 1002 COMMUNICATION SKILLS II 5 Hours per week

A continuation of Communication Skills I, stressing reading improvement—both rate and comprehension.

GC 1004 TECHNICAL WRITING 2.5 Hours per week

Informal and formal written reports. Techniques for collecting and presenting data, particularly as they apply to industry. Business letters.

GC 1005 EFFECTIVE SPEAKING 2.5 Hours per week

Organization, development and presentation of general speeches with emphasis on the oral report as a form of business and/or industrial communication.

GC 1007 EXPOSITORY WRITING 5 Hours per week

Organization and development of expository compositions, stressing logical and fallacious reasoning.

GC 1111 MATHEMATICS FOR PRINTERS

5 Hours per week

An introduction to printers' units of measure from the standpoint of the composing room, pressroom and the offset lithographic department.

Problems concerning calculation of weights of paper and quantity of paper needed to produce particular projects.

GC 1401 LAYOUT AND DESIGN 2.5 Hours per week

Principles of printing design and art work. Conventional layout, modern layout, type design, color usage, scaling photographs and art work, copy preparation for camera, newspaper layouts, designing folders, broadsides and booklets.

GC 1402 TYPOGRAPHY 10 Hours per week

History of the alphabet; evolution and development of movable type. Selection of proper type styles and sizes. Study and comparison of metal type and cold type. Methods of type setting—hand and machine composition. Copyfitting of text matter to space allocation. Basic requirements of hot metal, punched tape for cold composition (photographic and strike-on composition), hot metal and cold type display composition.

GC 1405 PROOFREADING AND COPY PREPARATION
2.5 Hours per week

Checking the typesetter's work; use of special symbols to mark changes, corrections, additions, or eliminations. How to check copy for errors. Duties of the proofreader and the copyholder. Reference books for the proofreader. Rules for syllabication of words. Acquiring speed and accuracy in proofreading.

GC 1410 MACHINE COMPOSITION 10 Hours per week

An extended study of various typesetting machines, both magnetic tape controlled and punched tape controlled, utilizing hot metal, photographic, and strike-on machines. Analysis, evaluation and recommendations based on individual research in order to select the best method for a particular kind of work. The basic operations of manually operated machines are also investigated.

GC 1415 GRAPHIC ARTS PROCESSES 2.5 Hours per week

Development and evolution of printing devices. Graphic arts processes in use today—letterpress, gravure, flexographic, offset and silk screen presses; newspaper and rotary presses. How they work and the kinds of work for which they were designed.

GC 1419 SURVEY OF GRAPHIC COMMUNICATIONS I
2.5 Hours per week

Descriptions and discussions concerning the various forms of printing and reproducing copies to include letterpress, lithography, gravure, silk screen and others. New forms of printing such as dry offset and screenless halftone printing will be studied with emphasis on the feasibility of implementation of such systems into present systems.

GC 1420 ELECTRONIC PROCESSES 2.5 Hours per week

The use of electronics, computers, and tape operated controls. Use of precise measuring instruments, darkroom instruments, pressroom and quality control equipment.

GC 1421 COLD TYPE PROCESSES 10 Hours per week

Classification of cold type devices—hand assembled paper or plastic alphabets, dry transfer fonts; keyboarded text-on paper machines; keyboarded phototypesetting; photo-lettered displays. Principles and operation of various keyboards.

GC 1428 SURVEY OF GRAPHIC COMMUNICATIONS II
2.5 Hours per week

Continuation of Graphic Communications 1419.

GC 1430 PRESSWORK 10 Hours per week

Survey and justification studies of press equipment to assist in suggesting capital expenditures for future growth and replacement cycles for letterpress, offset, and flexographic systems. Press usage and depreciation methods, replacement policies.

GC 1440 OFFSET PRESS OPERATION
12.5 Hours per week

Techniques of operation and control, study of various moistening systems, comparison of wet and dry forms of lithography. Plate comparisons to include wipe on, presensitized, albumin surface, deep etch, bi-metal, trimetal, dycril and other synthetics, grained and grainless. Understanding the required adjustments necessary for top quality printing.

GC 1450 ESTIMATING 5 Hours per week

Determine job costs; elements of job costs—labor, materials, burden, profit and markup. Conversion of manuscript copy to specific type sizes and styles. Characteristics and types of paper; paper sizes; selection and purchase of paper; determining proper cuts from mill size sheets; use of manufacturers' catalogs and price books.

GC 1460 BINDERY METHODS AND PROCEDURES
5 Hours per week

Drilling, stitching and cutting. Investigations into the more complex operations of page imposition, automatic signature assembly and book finishing. Automatic tape operated cutters demonstrated and explained. Automatic folders with pile feed and continuous feed.

GC 1480 PHOTOLITHOGRAPHY I 5 Hours per week

Types and uses of photocopy and process cameras. General and special use films. Darkroom techniques. Detailed investigation of policies, principles and systems for wet offset and dry offset processes—sheet fed and web fed. Electronic computer controls over basic systems and automation of present machinery. Study of improved methods and use of auxiliary devices. Recommendations and reports to management for improvements.

GC 1481 PHOTOLITHOGRAPHY II 5 Hours per week

Continuation of Photolithography I.

GC 1512 PRINCIPLES OF ECONOMICS I
2.5 Hours per week

Economic theory as applied to the problems of labor and industrial relations; income and spending of the aggregate of individuals, business firms, and various levels of government, money, commercial, and central banking; price levels and inflation; the role of a national government in fiscal and monetary policy affairs in a private enterprise economy. Current economic issues introduced and analyzed.

GC 1513 PRINCIPLES OF ECONOMICS II
2.5 Hours per week

Pricing and allocation mechanism of the classical market economy using the theory and analysis of supply and demand. Production, consumption, and distribution of the national output. International trade, the balance of payments, economic growth and development and comparative economic systems.

GC 1524 HUMAN BEHAVIOR 2.5 Hours per week

Human behavior problems. Minimizing friction between management and the craftsman. Thus, any instructions for modification of operation which may come from a technician will be in the form of recommendations and suggestion.

The technician must become proficient in the handling of people to gain their confidence and respect and secure results desired by management.

GC 1823 BUSINESS LAW I 5 Hours per week

The legal framework of business for the beginning student.

GC 1824 BUSINESS LAW II 5 Hours per week

A continuation of Business Law I. Government regulations, trusts and insurance.

GC 1843 ACCOUNTING I 5 Hours per week

Principles of accounting. Interpreting business reports. Journalization, posting, summarizing, preparing accounting statements. Sole proprietorships, partnerships, corporations.

GC 1845 COST ACCOUNTING FOR THE PRINTING INDUSTRY 5 Hours per week

Introduction to cost accounting principles as they apply to the printing and graphic arts industry. Accounting for materials. Labor, factory burden, job cost accounting, process cost principles and procedures, estimated costs, standard costs principles and procedures.

GC 2201 PRINTING SCIENCE I (Chemistry)
5 Hours per week

Basic chemical principles as they relate to definite applications in printing.

The chemistry of process photography and platemaking. Chemical basis of offset lithography. The chemistry of paper making.

GC 2202 PRINTING SCIENCE II (Physics)

5 Hours per week

Basic principles of work, energy, time, electricity, heat, magnetism, light and illumination, as they relate to printing. Laboratory experience in the application of principles.

MECHANICAL DESIGN TECHNOLOGY

MECHANICAL DESIGN TECHNOLOGY CURRICULUM

		HOURS PER WEEK		
Term 1		Class	Lab.	Total
MD 1001	Communication Skills I	5	0	5
MD 1111	Technical Math I	5	0	5
MD 2101	Engineering Graphics I	5	5	10
MD 2201	Engineering Materials	2	3	5
MD 2205	Physics I	3	2	5
		20	10	30
1820	Cooperative Employment			
Term 2				
MD 1003	Communication Skills II	5	0	5
MD 1112	Technical Math II	5	0	5
MD 2103	Engineering Graphics II	2.5	2.5	5
MD 2202	Machine Tools	2	3	5
MD 2203	Manufacturing Processes	2	3	5
MD 2206	Physics II	2	3	5
		18.5	11.5	30
1820	Cooperative Employment			
Term 3				
MD 1004	Technical Writing	5	0	5
MD 1113	Technical Math III	5	0	5
MD 1524	Industrial Organization	5	0	5
MD 2207	Physics III	3	2	5
MD 2208	Hydraulics and Pneumatics	3	2	5
MD 2210	Strength of Materials	4	1	5
		25	5	30
1820	Cooperative Employment			

MECHANICAL DESIGN TECHNOLOGY
CURRICULUM

Term 4		HOURS PER WEEK Class	Lab.	Total
MD 1114	Technical Math IV	5	0	5
MD 1525	Industrial Psychology	5	0	5
MD 2105	Machine Design I	8	2	10
MD 2209	Thermodynamics	3	2	5
MD 2211	Systems Development and Design	5	0	5
		26	4	30
1820	Cooperative Employment			

Term 5				
MD 1005	Effective Speaking	5	0	5
MD 1512	Principles of Economics	5	0	5
MD 2104	Machine Design II	7	3	10
MD 2204	Engineering Laboratory	1	4	5
MD 2106	Tool and Die Design	3	2	5
		21	9	30
1820	Cooperative Employment			

MECHANICAL DESIGN TECHNOLOGY
ADVISORY COMMITTEE

NAME	EMPLOYER
Glenn Ashley, Supervisor of Technical Drawing	Cincinnati Milling Machine Company
Donald Blaney, Director of Apprentice Training	General Electric
Robert A. Bowen, Director of Human Relations	Cincinnati Chamber of Commerce
Kenneth Hagedorn, Coordinator -- Employment Office	Cincinnati Gas and Electric Company
Theordore Herklotz, Associate Supervisor	Cincinnati Public Schools
Werner Jessen, President	Alexander and Associates
Ben Kearns, Chief Draftsman	Keco Industries
Robert J. Keller, Drafting Trainee Supervisor	R. K. LeBlond Machine Tool Co.
Russell Little, Owner	Little Design Engineering Co.
Ron McDaniel, Chief Draftsman	McCleod Company
Don Suer, Chief Engineer	Plastic Molding, Inc.
James Wyler, Manager of Community Relations and Professional Placement	Allis - Chalmers

MECHANICAL DESIGN TECHNOLOGY
Course Descriptions

MD 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage. Analysis of strengths and weaknesses. Remedial assignments.

MD 1003 COMMUNICATION SKILLS II 5 Hours per week

Continuation of Communication Skills I, stressing expository writing skills.

MD 1004 TECHNICAL WRITING 5 Hours per week

Informal and formal written reports. Techniques applied to the field of mechanical design.

MD 1005 EFFECTIVE SPEAKING 5 Hours per week

Organization, development, and presentation of general speeches with emphasis on the oral report as a form of industrial communication.

MD 1111 TECHNICAL MATH I 5 Hours per week

Review and extension of high school math. Designed to bridge the gap between a weak mathematical foundation and the knowledge needed for the study of math for technical courses. To include—functional notations, systems of linear equations, quadratic and cubic equations, exponents and logarithms, etc.

MD 1112 TECHNICAL MATH II 5 Hours per week

Plane trigonometry. Angles and trigonometric ratios. Identities, equations and approximations. Trigonometry applied to mensuration.

MD 1113 TECHNICAL MATH III 5 Hours per week

Continuation of Technical Math II. Combination of college algebra and trigonometry. Emphasis on translation of engineering problems into mathematical terms. Trigonometric and algebraic background necessary in analytic geometry and calculus. Series and complex numbers. Binominal theorem and expansion.

MD 1114 TECHNICAL MATH IV 5 Hours per week

Analytic geometry and calculus I. Derivatives, antiderivatives, integrals,differentials. Emphasis on application. Plane analytic geometry, or coordinate geometry, parametric equations, the parabola, ellipse, and hyperbola.

MD 1512 ECONOMICS 5 Hours per week

Scarcity, resource development, organization for production, overall output and composition of the economy, pattern of distribution. The circular flow of economic activity in relation to the problems of resources, technology, politics and social institutions.

MD 1524 INDUSTRIAL ORGANIZATION 5 Hours per week

History, characteristics, and productivity of modern manufacturing in the United States. Manufacturing processes, plant location and equipment, manufacturing control, purchasing, production planning, quality, etc.

MD 1525 INDUSTRIAL PSYCHOLOGY 5 Hours per week

Behavior in business and industry. Behavior of workers, management, and consumers. Direct application of psychological principles to assist with inter-personal problems. Techniques include role playing and case studies.

MD 2101 ENGINEERING GRAPHICS I 10 Hours per week

Techniques and functions of drafting. Use of technical terms, modern drafting equipment, sections, multi-view projection and basic reference materials. Development of individual skills and techniques.

MD 2103 ENGINEERING GRAPHICS II 5 Hours per week

Advanced study in field drawing.

MD 2104 TOOL AND DIE DESIGN 10 Hours per week

A comprehensive study and analysis of cutting, forming, and drawing sheet metal using modern tools and dies. Application of mathematics and mechanics to determine forces and stresses occuring in these metal working operations. Provides experience of designing a die to produce a simple sheet metal product.

MD 2105 MACHINE DESIGN I 10 Hours per week

Principles of mechanics and strength of materials as applied to components of mechanisms and power trains as well as beams, pressure vessels, and other bodies under static load. Shafts, gears, couplings, threaded units, and riveted constructions are treated in detail.

MD 2106 MACHINE DESIGN II 10 Hours per week

A continuation of Machine Design I. Detailed study of jig and fixture design. Emphasis on application of design theory.

MD 2201 ENGINEERING MATERIALS 5 Hours per week

Metallic, organic and inorganic nonmetallic substances. Testing, uses, and fabrication of these materials. Emphasis on testing procedures and interpretation of test data. Introduction to stress and strain. Use of various testing machines.

MD 2202 MACHINE TOOLS 5 Hours per week

Instruction in the operation and application of drill press, lathe, shaper, milling machine, grinder, etc.

MD 2203 MANUFACTURING PROCESSES
5 Hours per week

Powder metallurgy, cermets, carbide, electrochemical, electrical discharge, and electrolytic grinding. Duplicating and automatic metal working machines. Sheet metal working, fabricating, welding. Tool and die procedures.

MD 2204 ENGINEERING LAB 5 Hours per week

Laboratory problems. Performance tests conducted on various machines as studied in hydraulics, thermodynamics, strength of materials, etc.

MD 2205 PHYSICS I — 5 Hours per week

Introduction to mechanics. Concepts of motions (kinetics). Particles, rigid bodies, laws of force and motion, type of motion, impulse and momentum, mechanical vibrations. Statics-force system. Components, resultants, equivalence, equilibrium and center of gravity. Laws of friction and moments.

MD 2206 PHYSICS II — 5 Hours per week

Continuation of Physics I with emphasis on application of statics. To include introduction to concepts of quantum theory. Development and need for quantum theory. Wave equation. Periodic potentials and the solid state.

MD 2207 PHYSICS III — 5 Hours per week

Introduction to principles of electricity and magnetism. Charge, field, and potential. Electrostatic and electro-dynamic energy. Direct and alternating currents. Magnetic fields. Emphasis on physical concepts.

MD 2208 HYDRAULICS AND PNEUMATICS — 5 Hours per week

Basic principles of hydraulics and pneumatics. Distribution and control. Application of fluid mechanics, including pressure, density and viscosity. Basic physical laws governing fluids and gases. Application in design circuits and systems.

MD 2209 THERMODYNAMICS 5 Hours per week

Work, temperature and heat. First and second laws of thermodynamics. Processes involving the control or use of energy. Relationship among gaseous, liquid, and solid states. Analysis of heat transfer as encountered in machine members.

MD 2210 STRENGTH OF MATERIALS 5 Hours per week

Effects of forces and stresses on materials in various forms and configurations found in engineering and mechanical constructions. Use of elementary mathematics in analyzing forces, stresses, moments and equilibrium by use of such factors as moment of inertia, radius of gyration; and centroids. Determination of dimensions and material specifications.

MD 2211 SYSTEMS DEVELOPMENT AND DESIGN
5 Hours per week

The "automation revolution." Numerical control equipment. Automated production techniques. Cybernetics. Design and development of automated systems.

SALES-MARKETING TECHNOLOGY

SALES-MARKETING TECHNOLOGY

Nationally, the field of sales-marketing generates more income than any other profession. Eighty percent of those who earn more than $20,000 a year are directly engaged in sales-marketing.

In the Sales-Marketing department at CCST, small classes, an approach which presupposes adult attitudes, and expert guidance, instruction and coordination, all focus on a single objective: developing talent for the sales-marketing professions. Advertising, display, sales promotion, market research and analysis, mid-management supervision, data processing, accounting, and other studies develop the attitudes and skills necessary for success.

The business-industrial community in Cincinnati provides a unique laboratory in which Sales-Marketing students acquire their cooperative employment experience. Greater Cincinnati is such a diverse marketing complex that this area is used by many national agencies for market research. The kinds of cooperative employment presently held by Sales Marketing students are as varied as the marketing area itself.

On-the-job training is not a substitute for the critical analysis and careful exposition undertaken in school; nor is schooling a substitute for field experience. The CCST cooperative employment system offers the best of both worlds in the proper proportions for optimum personal and professional growth.

SALES-MARKETING TECHNOLOGY CURRICULUM

Term 1		HOURS PER WEEK Class	Lab.	Total
SM 1001	Communication Skills I	5	0	5
SM 1131	Business Mathematics I	5	0	5
SM 1512	Economics I	2.5	0	2.5
SM 1801	Principles of Marketing I	5	0	5
SM 1811	Salesmanship I	2.5	0	2.5
SM 1821	Introduction to Business I	5	0	5
		25	0	25
1820	Cooperative Employment Program			

Term 2				
SM 1002	Communication Skills II	5	0	5
SM 1132	Business Mathematics II	5	0	5
SM 1513	Economics II	2.5	0	2.5
SM 1802	Principles of Marketing II	5	0	5
SM 1812	Salesmanship II	2.5	0	2.5
SM 1822	Introduction to Business II	5	0	5
		25	0	25
1820	Cooperative Employment Program			

Term 3				
SM 1007	Expository Writing	5	0	5
SM 1522	General Psychology	2.5	0	2.5
SM 1832	Personnel Management	5	0	5
SM 1842	Advertising and Display	5	0	5
SM 1833	Business Statistics	5	0	5
SM 1854	Retailing I	2.5	0	2.5
		25	0	25
1820	Cooperative Employment Program			

SALES-MARKETING TECHNOLOGY
CURRICULUM

Term 4		HOURS PER WEEK Class	Lab.	Total
SM 1006	Technical Writing	5	0	5
SM 1803	Case Studies (Retail)	5	0	5
SM 1813	Management I	2.5	0	2.5
SM 1823	Business Law I	5	0	5
SM 1834	Wholesaling I	2.5	0	2.5
SM 1843	Accounting I	5	0	5
		25	0	25
1820	Cooperative Employment Program			

Term 5				
SM 1005	Effective Speaking	2.5	0	2.5
SM 1524	Human Relations	2.5	0	2.5
SM 1700	Survey of Data Processing	2.5	0	2.5
SM 1814	Management II	2.5	0	2.5
SM 1824	Business Law II	5	0	5
SM 1834	Case Study (Wholesaling)	5	0	5
SM 1844	Accounting II	5	0	5
		25	0	25
1820	Cooperative Employment Program			

SALES-MARKETING TECHNOLOGY
ADVISORY COMMITTEE

NAME	EMPLOYER
Michael Davis, Personnel Manager	Specialized Services and Supply Co.
Robert Davis, Employment Manager	Swallen's Discount Incorporated
David Eagleson, Sales Manager	Emery Industries, Incorporated
Ralph Estes, Sales Consultant	Self-Employed
Nel Faust, Training Director	John Shillito, Co.
Richard Kuck, Advertising Manager	Cincinnati Chamber of Commerce
Jerry Lynch, Personnel Director	Rink's Food Discount
Richard Mashburn, Personnel Manager	Coca-Cola Bottling Works
Jack Overback, Employment Manager	Kroger Company
John Roman, Special Projects Coordinator	South-Western Publishing Co.
Albert Schaefer, Personnel Manager	H & S Pogue Co.
Floyd Shorts, Sporting Goods - Sales	Brendamour's Sporting Goods

SALES-MARKETING TECHNOLOGY
Course Descriptions

SM 1001 COMMUNICATION SKILLS I 5 Hours per week

Syntax, paragraph development, mechanics, usage, spelling, and vocabulary. Analysis of strengths and weaknesses. Remedial assignments.

SM 1002 COMMUNICATION SKILLS II 5 Hours per week

Continuation of Communication Skills I, stressing reading improvement—both rate and comprehension.

SM 1005 EFFECTIVE SPEAKING 2.5 Hours per week

Organization, development and presentation of general speeches with emphasis on the oral report as a form of business and/or industrial communication.

SM 1006 TECHNICAL WRITING 5 Hours per week

Business letters with emphasis on various types according to their purposes. Informal and formal reports.

SM 1007 EXPOSITORY WRITING 5 Hours per week

Organization and development of expository compositions, stressing logical and fallacious reasoning.

SM 1131 BUSINESS MATHEMATICS I 5 Hours per week

Training in the mathematical skills required by modern business. Development of speed in making basic calculations. Business operations and busi-

SM 1131 BUSINESS MATHEMATICS I (cont.)

ness forms that call for special application of mathematical skill. Fundamental arithmetic operations, fractions, decimals, percentage.

SM 1132 BUSINESS MATHEMATICS II 5 Hours per week

A continuation of Business Mathematics I. Topics studied include: mark up and mark down, interest, loans, depreciation, investment, payroll, insurance.

SM 1512 ECONOMICS I 2.5 Hours per week

An introductory study of the analysis and application of basic economic theory as applied to the problems of labor and industrial relations. Income and spending of the aggregate of individuals, business firms, and various levels of government. Money, commercial, and central banking. Price levels and inflation. The role of the national government in fiscal and monetary policy in a private enterprise economy. Current economic issues introduced and analyzed.

SM 1513 ECONOMICS II 2.5 Hours per week

An introductory study of the pricing and allocation mechanism of the classical market economy using the theory and analysis of supply and demand on an individual basis in the determining of the nature of production consumption, and distribution of the national output. International trade, the balance of payments, economic growth and development and comparative economic systems.

SM 1522 GENERAL PSYCHOLOGY 2.5 Hours per week

A scientific study of human behavior with emphasis on motivation, learning, individual differences, and personality.

SM 1524 HUMAN RELATIONS 2.5 Hours per week

Human behavior individually and in groups. Supervisory relationships.

SM 1700 SURVEY OF DATA PROCESSING 2.5 Hours per week

An overview of data processing and systems analysis.

SM 1801 PRINCIPLES OF MARKETING I 5 Hours per week

Principles and functions of marketing. The essential concepts of competition, demand, and the structure of distribution. Marketing management and the role of the marketing executive in critical decisions.

SM 1802 MARKETING II 5 Hours per week

The analysis, interpretation, application, and forecasting of research findings in marketing management. The case method is used extensively in relating these techniques to actual marketing problems.

SM 1803 CASE STUDY (RETAIL) 5 Hours per week

Individual projects and studies related to actual cases which provide opportunities for the student to develop better understandings of the principles of retailing as they are practically applied in retail stores in this community.

SM 1811 SALESMANSHIP I 2.5 Hours per week

The personal and economic aspects of selling. An overview of what is necessary for the individual to be successful in selling.

SM 1812 SALESMANSHIP II 2.5 Hours per week

Study of the selling process. A point by point observation of the steps of a sale and an introduction to industrial and wholesale selling.

SM 1813 MANAGEMENT I 2.5 Hours per week

Overview of the principles and practices of management.

SM 1814 MANAGEMENT II 2.5 Hours per week

Continuation of Management I. The psychology of management.

SM 1821 INTRODUCTION TO BUSINESS I
5 Hours per week

The organization of business. The economic framework that constitutes the capitalistic system. Business vocabulary.

SM 1822 INTRODUCTION TO BUSINESS II
5 Hours per week

An introduction to personnel, finance, managerial controls, and business law. Regulated industries and taxation.

SM 1823 BUSINESS LAW I 5 Hours per week

Law as applied to business.

SM 1824 BUSINESS LAW II 5 Hours per week

A continuation of Business Law I with a treatment of government regulations, trust, and insurance.

SM 1832 PERSONNEL MANAGEMENT 5 Hours per week

A look at the many facets of personnel management and its contribution to the employer.

SM 1833 BUSINESS STATISTICS 5 Hours per week

Fundamentals of statistics. Application of statistical-decision theory in business. Construction, use, and interpretation of statistical data. Probability theory, sampling distributions, risk and uncertainty. Marketing applications stressed.

SM 1834 WHOLESALING I 2.5 Hours per week

Individual projects and studies related to actual cases which provide opportunities for the student to develop better understandings of the principles of wholesaling as they are practically applied in wholesale companies in this community.

SM 1842 ADVERTISING AND DISPLAY 5 Hours per week

Advertising media and their effects upon business. Practical applications of display theories as they relate to window and internal displays. Display and its relation to interior decorating and design.

SM 1843 ACCOUNTING I 5 Hours per week

Principles and practices of elementary accounting. Theory and application.

SM 1844 ACCOUNTING II 5 Hours per week

A continuation of Accounting I. Additional applications.

SM 1854 RETAILING I 2.5 Hours per week

Designed to promote skills and attitudes necessary to achieve success in the important field of distribution.

ENTRANCE TEST DATES

All applicants for admission to the Cincinnati Co-operative School of Technology must take the required entrance examination before any decision on acceptance can be made. (See page for complete outline of application procedures).

The exam will be given in the Courter Technical High School Building, 3520 Central Parkway, Cincinnati, Ohio 45223, on the dates listed below.

Applicants are urged to take the exam on the earliest date possible and to submit all other necessary forms since many programs are filled by early spring.

Applicants living outside of the greater Cincinnati area, who cannot arrange to take the exam in Cincinnati, should write the Director of Admissions as early as possible so special arrangements might be made through the applicant's high school.

ENTRANCE TEST DATES
1968-69

For applicants planning to enter in the fall of 1969:

Saturday	February 15, 1969	8:30 A.M.
Saturday	April 19, 1969	8:30 A.M.
Friday	June 20, 1969	8:30 A.M.
Friday	August 1, 1969	8:30 A.M.

ENTRANCE TEST DATES
1969-70

For applicants planning to enter in the fall of 1970:

Saturday	February 14, 1970	8:30 A.M.
Saturday	April 18, 1970	8:30 A.M.
Friday	June 26, 1970	8:30 A.M.
Friday	August 7, 1970	8:30 A.M.

PROJECTED CALENDAR FOR CCST

		Terms*	
	September 2	1A	3B
	November 10	1B	4A
1969-1970	February 2	2A	4B
	April 13	2B	5A
	June 22	3A	5B
	August 31	Vacation	
	September 8	3B	1A
	November 16	4A	1B
1970-1971	February 1	4B	2A
	April 12	5A	2B
	June 21	5B	3A
	August 30	Vacation	
	September 7	1A	3B
	November 15	1B	4A
1971-1972	January 31	2A	4B
	April 10	2B	5A
	June 19	3A	5B
	August 28	Vacation	
	September 5	3B	1A
	November 13	4A	1B
1972-1973	January 29	4B	2A
	April 9	5A	2B
	June 18	5B	3A
	August 27	Vacation	

* The numeral refers to the term in the curriculum being offered; the letter refers to the group in school. The group starting the first year in September is Section A; the group starting the first year in November is Section B. The sequence of classes in school is 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B.

THE FACULTY

ROBERT H. LOWE, B.S., M.S., Director

CLIFFORD R. HOUSE, A.B., M.Ed., Dean

IRVIN C. KUEHN, B.S., M.A., Director of Student Activities

FREDERICK B. SCHLIMM, B.S., M.Ed., Director of Admissions and Records

CHARLES E. WARMAN, B.S., M.Ed., Assistant to the Dean, Instructor in Communication Skills.

FRANK B. BORK, JR., B.S., Cert. Lab Tech., Cert. Tissue Culture Tech., Coordinator of Clinical Technology Program

EURIS BRYANT, B.A., M.A., Coordinator of Executive Secretary Program

SAMUEL J. CAPOZZOLO, B.S., M.Ed., Coordinator of Graphic Communications Technology Program

ROBERT W. CRAIGO, B.S., M.A., Coordinator of Mechanical Design Technology Program

DONALD L. DADEY, B.S., M.Ed., Instructor in Communication Skills and Social Studies

ROBERT V. ELMER, B.S., M.Ed., Coordinator of Sales-Marketing Technology Program

HARRY R. HEINK, B.A., Instructor in Communication Skills

CHARLES L. JONAS, B.S., M.Ed., Coordinator of Mechanical Design Technology Program

MICHAEL H. JONES, B.F.A., Instructor in Communication Skills and Business Mathematics

ROBERT KAMP, B.S.E., Coordinator of Electronics Technology Program

JOSEPH N. KEENAN, B.S., M.S., Coordinator of Automotive Service Management Program

RICHARD L. KILEY, A.B., M.Ed., Librarian

EUGENE E. KRYGOWSKI, B.S., Coordinator of Graphic Communications Technology Program

RUSSELL LADLEY, B.S.I.E., B.S.M.E., Reg. Engineer, Coordinator of Civil Engineering Technology Program

THE FACULTY (cont.)

- JOHN LALLEY, B.S., Instructor in Physics and Technical Mathematics

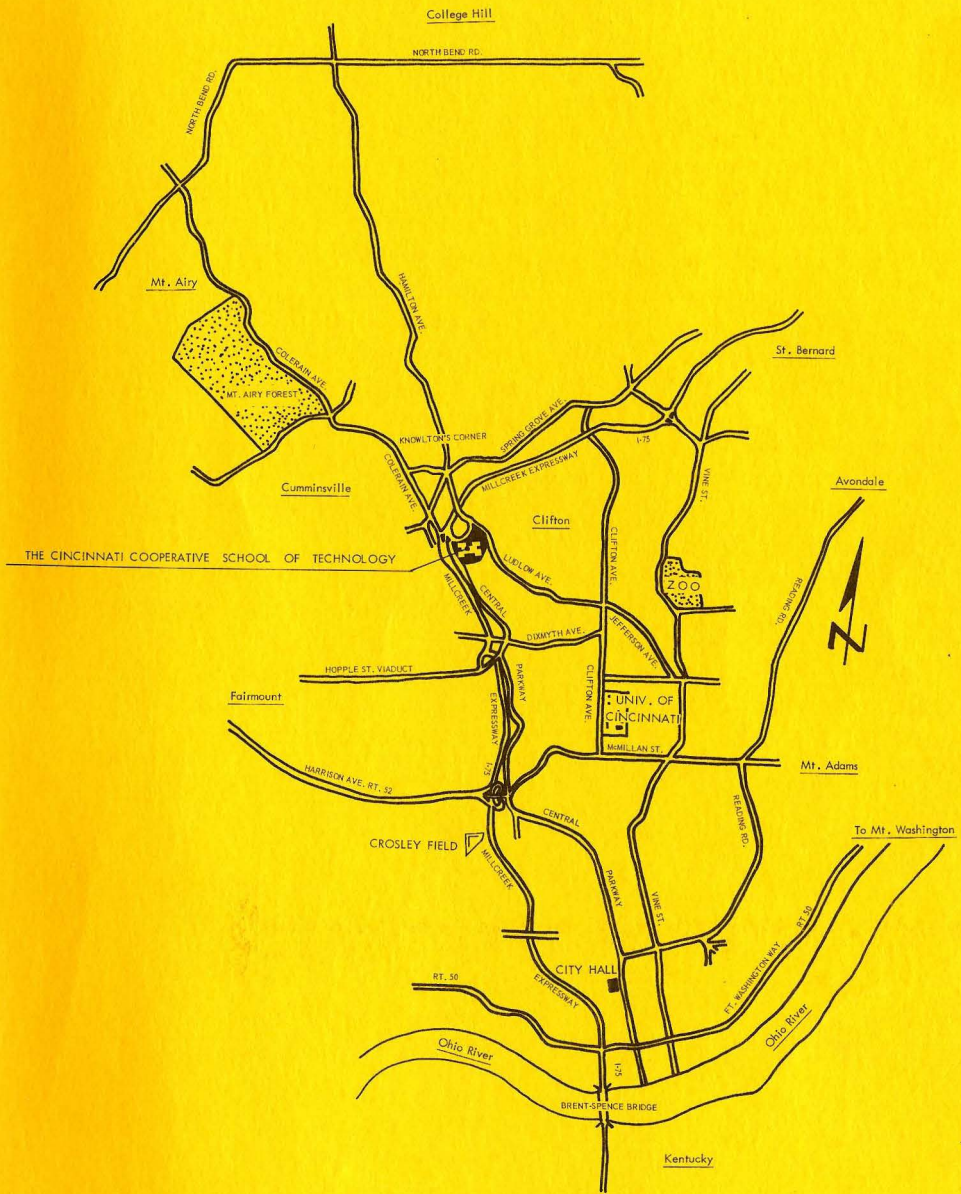
BETTIE MC TERRY, B.S., Instructor in Business and Secretarial Courses

DONALD E. MILLER, B.S., M.Ed., Coordinator of Business Data Processing Program

- LEONARD R. PENN, B.S., Instructor in Economics and Psychology
- LLOYD L. PITMAN, JR., B.S., Coordinator in Sales-Marketing Technology Program
- ANN I. RASCHE, B.A., B.Ed., M.Ed., Coordinator of Business Data Processing Program
- RICHARD STRAIT, B.S., Instructor in Technical Mathematics, Science, and Mechanics

JAMES R. SWARTZ, B.S., Coordinator of Civil Engineering Program, Instructor in Technical Mathematics and Science

- EUGENE T. WIELAND, B.B.A., M.B.A., Coordinator of Business Management Program
- IMMANUEL J. ZIEGLER, B.S.M.E., Instructor in Technical Mathematics and Science



LOCATION
OF
THE CINCINNATI COOPERATIVE
SCHOOL OF TECHNOLOGY

MAP PREPARED BY MARY HEHN, 1966

CCST