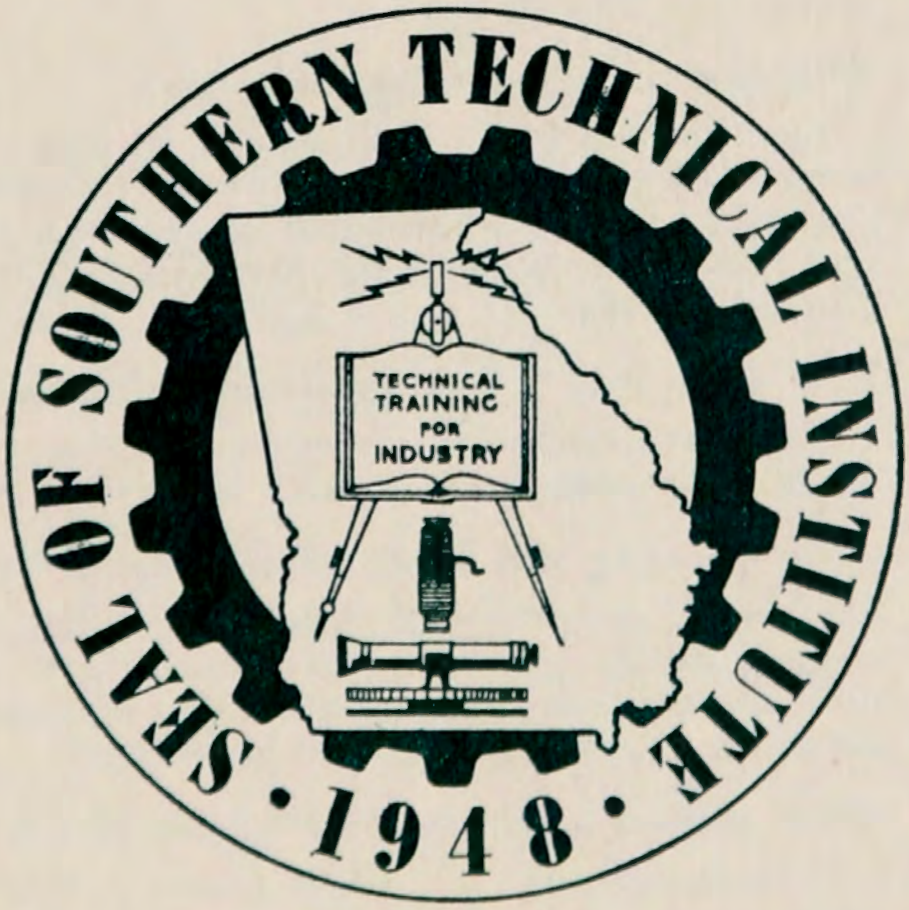
1959-1960

SOUTHERN TECHNICAL INSTITUTE



A UNIT OF

ENGINEERING EXTENSION DIVISION

GEORGIA INSTITUTE OF TECHNOLOGY

IN BRIEF

Where is the Southern Technical Institute?

Only thirteen miles from the heart of Atlanta, on a portion of the Atlanta Naval Air Station, at Chamblee, Georgia. See page 2.

What is the purpose of Southern Tech?

To train technicians for industry. A technician is a supervising, operating, maintenance, or sales engineer in any number of industrial fields. He is not a designer; he is not a skilled mechanic. He is a technical specialist who translates designs into action by coordinating men, materials, and machines. See pp. 9-11.

What courses of study are offered?

Eight two-year, technological courses—Building Construction, Civil, Electrical, Electronic and Radio, Gas Fuel, Heating and Air Conditioning, Industrial, and Mechanical. See pp. 33-49.

Is a diploma conferred?

Yes. You will be awarded a diploma in the technological field of your choice. See page 22.

What are the entrance requirements?

You must be a high school graduate, or have equivalent training. When applying for admission, you must file an Application for Admission and send an official transcript of your high school work, or its equivalent, to the Registrar, Southern Technical Institute, Chamblee, Georgia. See page 21.

How much does it cost to attend Southern Tech?

Matriculation and other fees are $90.00 per quarter. For a complete schedule of expenses, see page 14.

What boarding and living accommodations are provided?

A modern, attractive dining hall, cafeteria plan. Comfortable, well-equipped dormitory rooms are available for 280 men. Married students may obtain inexpensive, furnished or unfurnished apartments in the nearby Tech-Lawson Apartments. See page 32.

What student activities are available at Southern Tech?

Numerous student clubs, which sponsor dances, parties, and other social activities; a well-rounded sports program, including intercollegiate athletics and intramural sports; a monthly student newspaper and a yearbook; Student Government. See pp. 23-29.

Does Southern Tech help to place its gradutes?

Yes! An efficient, successful placement office will help you in every way to get a desirable position at a good starting salary. See page 20.

University System of Georgia

SOUTHERN TECHNICAL INSTITUTE

CATALOGUE AND INFORMATION

1952-53

VOLUME V NUMBER I

A Unit of

ENGINEERING EXTENSION DIVISION

GEORGIA INSTITUTE OF TECHNOLOGY

Address

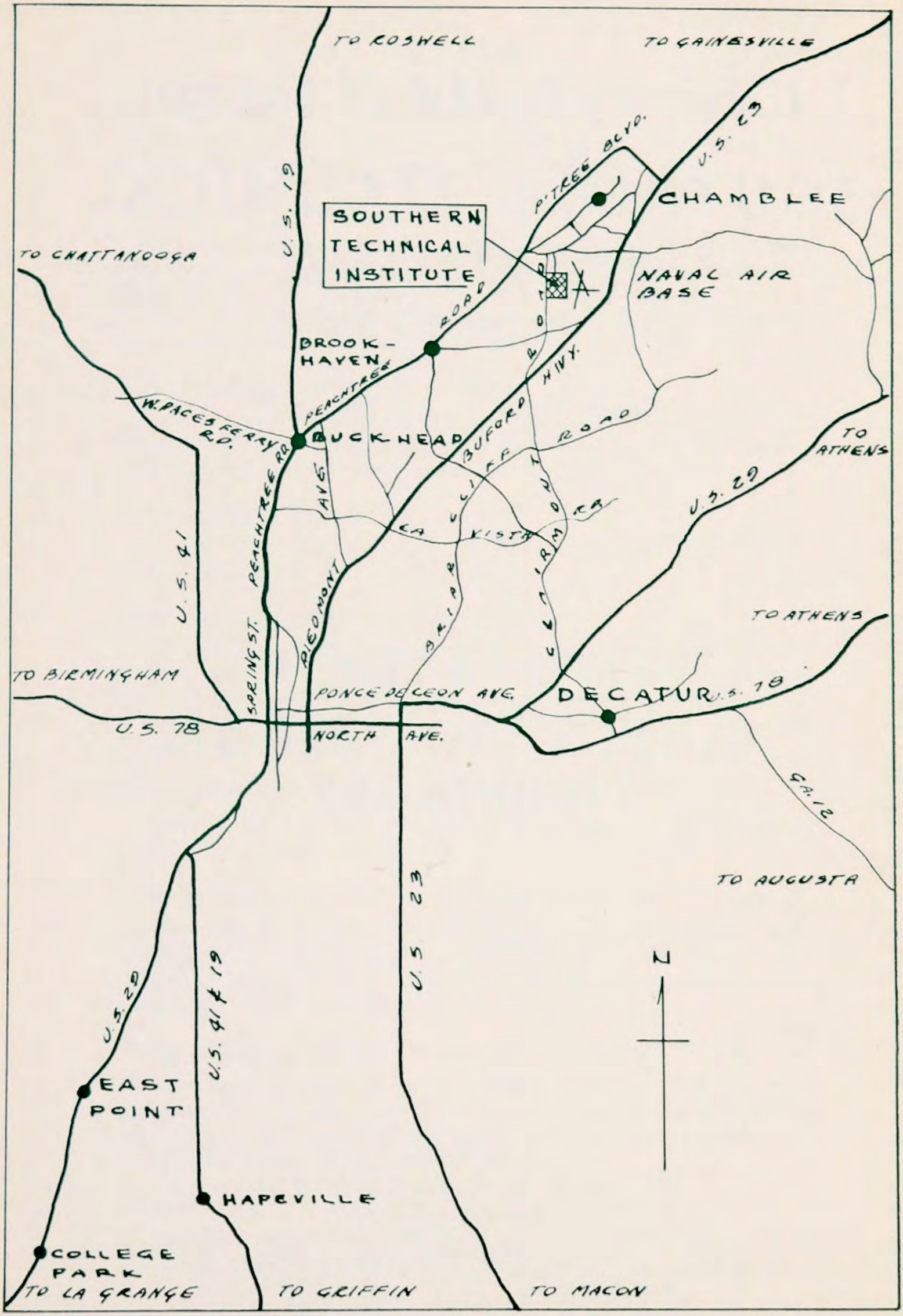
SOUTHERN TECHNICAL INSTITUTE

CHAMBLEE, GEORGIA

Telephones

ATLANTA No. 47-3164

CHAMBLEE No. 7-3164



Thirteen Miles North of Atlanta

TABLE OF CONTENTS

THREE-YEAR CALENDAR

1952

JULY

S	M	T	W	T	F	S
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6	7	8	9	10	11	12
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1954

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FEBRUARY

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MARCH

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CALENDAR 1952-53

Fall Quarter, 1952

September 29—Registration.
September 30—Classes begin.
October 1—Late registration fees apply.
October 4—Last day for registration. Last day for adding a subject to study list.
November 1—Last day for dropping a subject from study list without penalty.
November 8—End of deficiency report period.
*November 27-30—Thanksgiving recess.
December 20—End of term.
*December 21-January 4—Christmas recess.

Winter Quarter, 1953

January 5—Registration.
January 6—Classes begin.
January 7—Late registration fees apply.
January 10—Last day for registration. Last day for adding a subject to study list.
February 7—Last day for dropping a subject from study list without penalty.
February 14—End of deficiency report period.
March 21—End of term.
*March 22-29—Spring recess.

Spring Quarter, 1953

March 30—Registration.
March 31—Classes begin.
April 1—Late registration fees apply.
April 4—Last day for registration. Last day for adding a subject to study list.
May 2—Last day for dropping a subject from study list without penalty.
May 9—End of deficiency report period.
June 13—End of term.

Summer Quarter, 1953

July 6—Registration.
July 7—Classes begin.
July 8—Late registration fees apply.
July 11—Last day for registration. Last day for adding a subject to study list.
August 8—Last day for dropping a subject from study list without penalty.
August 15—End of deficiency report period.
September 19—End of term.

*Official school holidays.

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Assistant

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1951-1952

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Dean of Students—C. V. MADDOX
Student Placement—R. L. WILKINSON
Student Regulations—C. V. MADDOX
Administrative Assistant—MRS. M. N. MAVITY
Financial Secretary—MRS. LOUISE SKAINES
Secretary, Veterans Affairs—MRS. DORIS NYLAND
Placement Secretary and Receptionist—MISS MARY PRICE
Steno-Typist—MISS MARY RAINEY
Secretary to Supt. of Buildings, Grounds—MISS AILEEN DEMPSEY

FOREWORD

THE TECHNICIAN IN MODERN INDUSTRY

The Need

As the result of approximately 50 billion dollars spent on research and design during the war years, the modern scientist and engineer have created for us a world in which everyday living has become increasingly technical and complex. The advent of electronics, supersonic aircraft, atomic energy, television, modern metallurgy and chemistry has brought about a new revolution in industry—a technical revolution—which requires less and less of the strength and sweat of the worker and more and more of his technical knowledge and skills.

As our economy makes painful adjustment after the last war and now prepares to meet the present military situation, we are beginning to realize what vast inroads have been made on our most readily available natural resources. Petroleum, steel, and lumber shortages have given warning of inadequacies, both material and technical.

If our American communities are to maintain and advance our standards of living in the years ahead and help others raise theirs, it will not be because of the old superabundance of ready resources to be exploited on every hand, but because we bring increasing technical skills to the use and conservation of what we have.

We must make better use of human resources to compensate for a decline in our readily available natural resources, as well as to find and develop new resources. This means more technicians with increased skills in production, processing, distribution, and all the human services and human relations involved in maintaining a modern community, whether local, national, or world wide.

The Technician

As technical advances are made and as more and more complex mechanisms are manufactured and sold, we are becoming increasingly dependent on the engineer and his technical knowledge, on the mechanic and his experience and skills, and on a third member of the team, the technician, who combines some of the knowledge, experience and skills of both the engineer and the mechanic.

The technician is a person trained in the basic sciences of mathematics, physics, English, human relations and management, and the application of these principles to the processes, machines, instruments and supervision of modern industry.

In the laboratory they serve as laboratory technicians or engineering associates to carry out many of the tests, experiments, inspections, and calculations of modern research.

In the factory they serve as engineering aides, foremen, inspectors, process specialists, technical salesmen, estimators, specification writers, production engineers, and department heads.

In the field they are needed for the construction, installation, operation, and maintenance of thousands of installations whose specialized

THE TECHNICIAN'S TRAINING

Each of the eight courses offered at Southern Tech is composed of a curriculum which consists of a closely unified body of subject matter drawn from four areas and designed to develop certain specialized, technical skillls and abilities—

I. Communication Skills—drawing, blueprint reading, spoken English, written English

II. Basic Sciences—chemistry, mathematics, physics

III. Supervisory Abilities—human relations, personnel management, labor relations, supervisory training

IV. Technical Specialties—the technical subjects common to each of the eight technological courses, the study of which makes of the student a specialist in his chosen field.

I. COMMUNICATION SKILLS

Drawing

and Spoken and Written English

and complex nature require technical skills and a knowledge of basic science beyond that of the mechanic. Many become proprietors of their own business or contractors.

Studies made by the Engineers Council for Professional Development show that seven technicians are needed for every engineer. Today 35,000 technicians are needed by Southern industry alone.

The Technical Institute Program

The Southern Technical Institute offers an opportunity for those men and women who do not care to spend four or more years training for engineering research and design but who will spend two years in concentrated, specialized study to qualify for the thousands of technical positions available in today's industry.

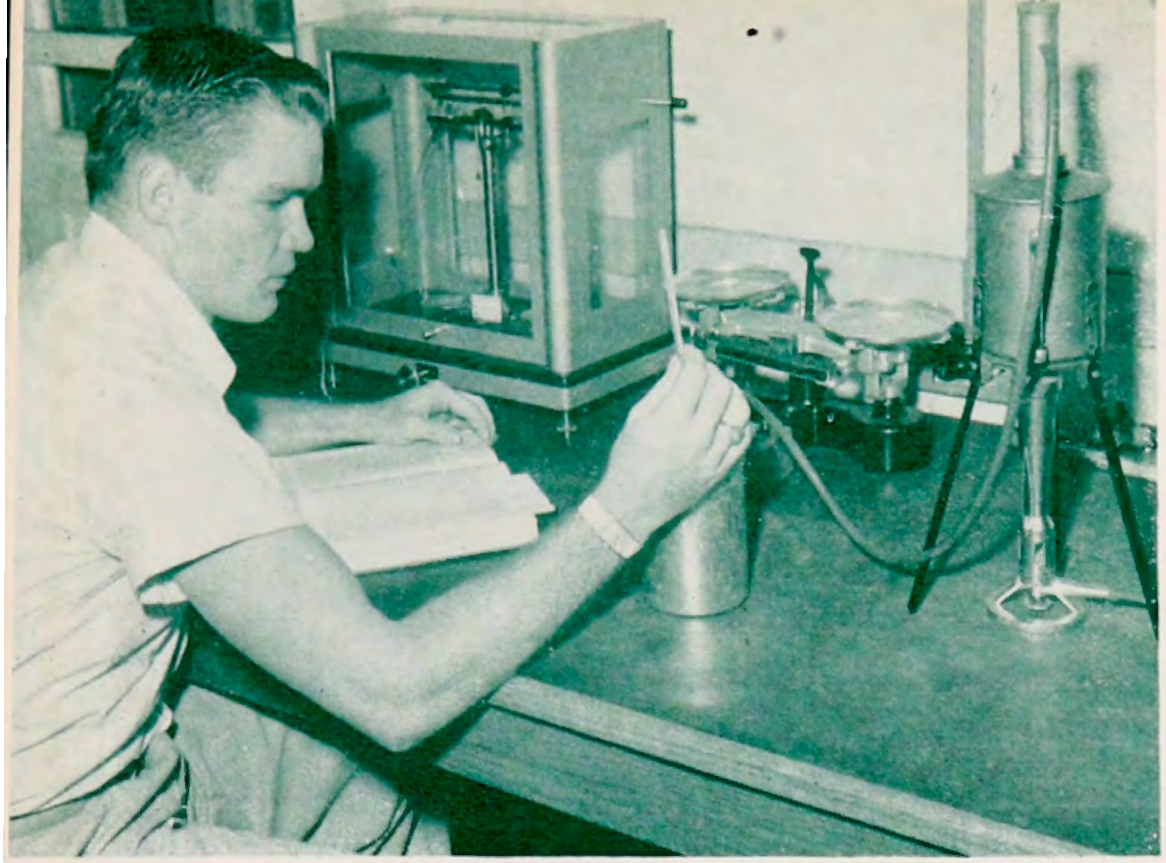
The technical institute prepares the graduate to enter into and to advance in the engineering field of his choice. The technical institute curriculum is designed to provide the basic scientific knowledge, the specialized, technical know-how, and the supervisory and management training needed by the technician.

The courses, as defined by the Engineers Council for Professional Development, are briefer, more intensive, and more specific in purpose than those of the engineering curricula, although they lie in the same fields of industry and engineering. Their aim is to prepare the individual for specific, technical positions or lines of activity, rather than for the broad sectors of engineering practice. The technical institute program is a terminal program which will enable the graduate to go directly into industry.

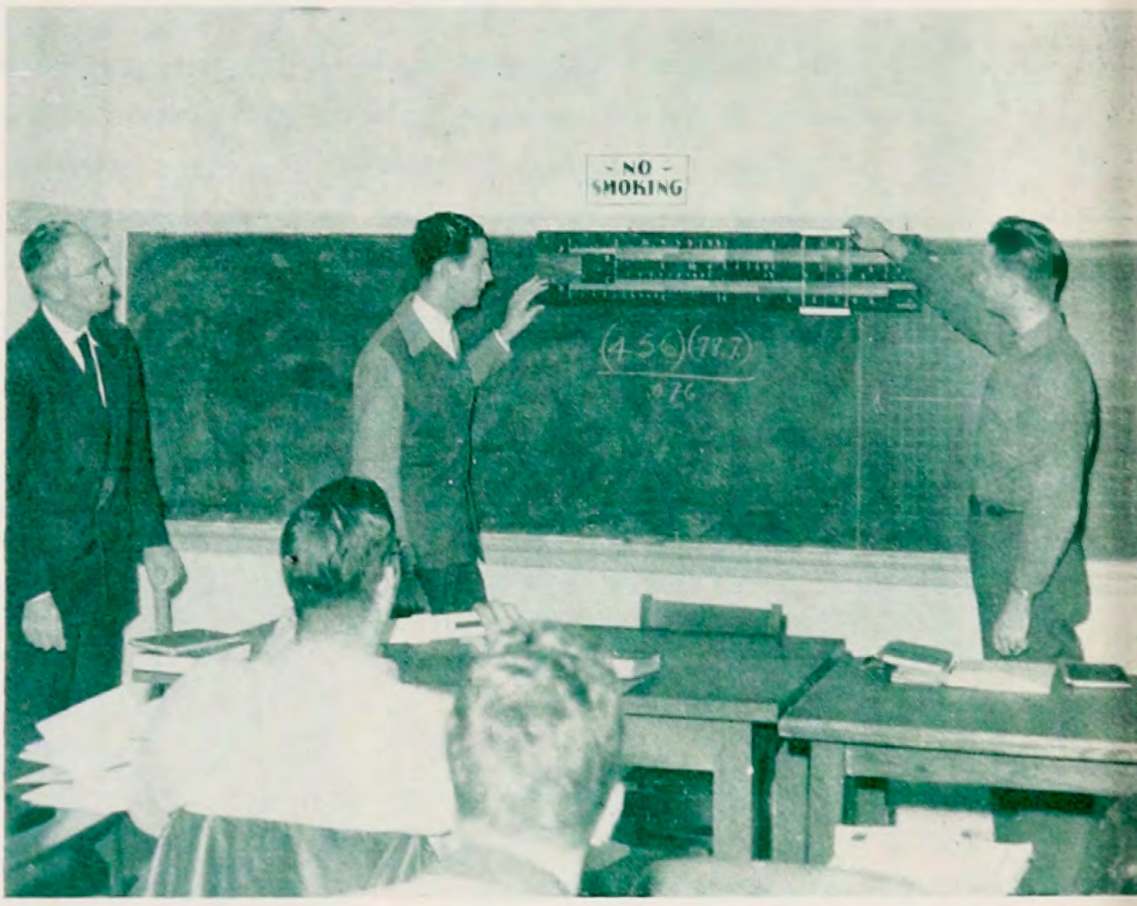
ADVANTAGES OF SOUTHERN TECHNICAL INSTITUTE TRAINING

Complete Courses in Only 18 Months.
Economy—Maximum Training in Minimum Time at Minimum Cost.
Small Classes—Individual Attention.
Experienced, Skilled Instructors—Highly Specialized, Technical Training.
Theory Plus Practical Application.
Adequate, Up-to-Date Equipment.
Extracurricular Activities.
Draft Deferment for Qualified Students.
Effective Job-Placement Service.
Good Salaries for Graduates.

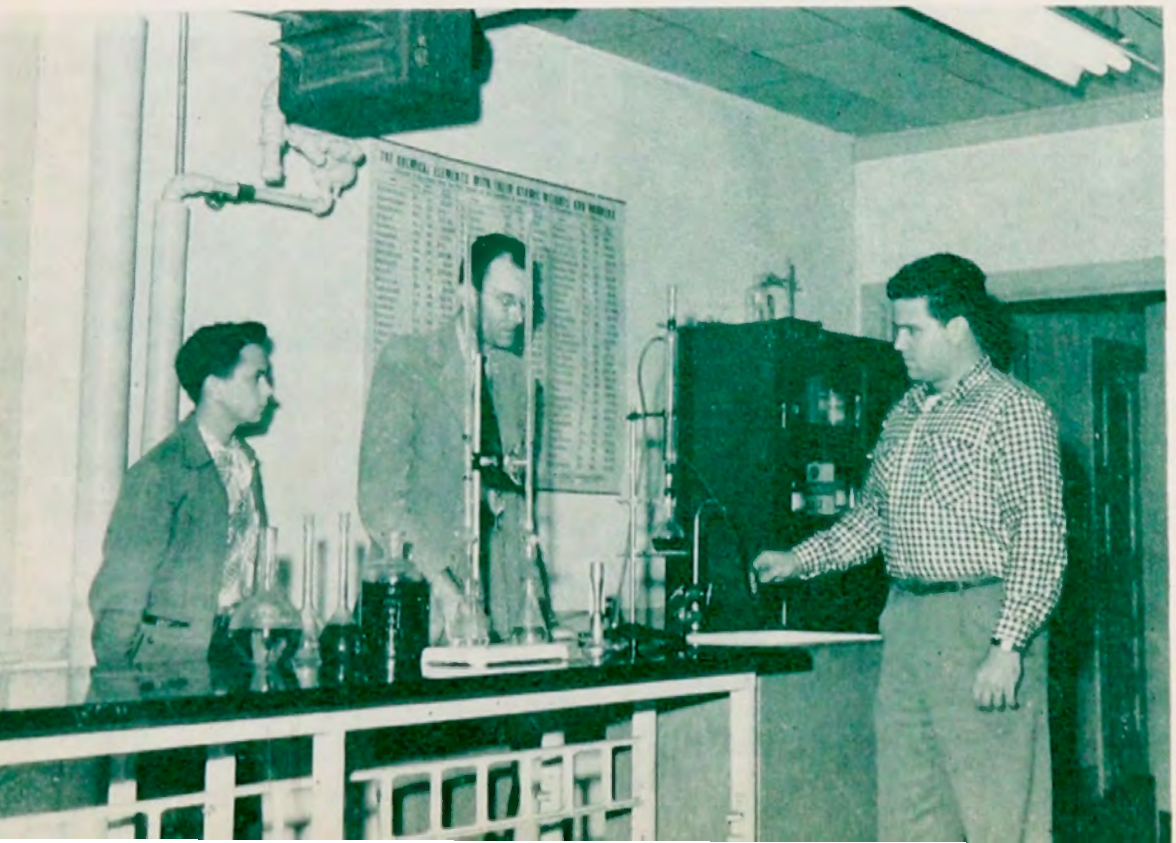
II. BASIC SCIENCES



Physics



Mathematics



Chemistry

GENERAL INFORMATION

HISTORY

The Board of Regents of the University System of Georgia has established a new type of educational program designed to train technicians to supply the industrial needs of Georgia. Careful surveys and information received from the Associated Industries of Georgia reveal that this type of training is urgently needed to assist the industrial development of our state.

Southern Technical Institute, first known as The Technical Institute, began its unique program at Chamblee, Georgia, on March 24, 1948. Since that time it has been fully accredited by the Engineers' Council for Professional Development and is now listed in the Bulletin of the United States Office of Education as an accredited institution of higher learning. It is a permanent, full-time, two-year, co-educational, boarding college under the supervision of the Georgia Institute of Technology through the Engineering Extension Division.

In its four years of operation, the Southern Technical Institute has graduated and sent into industry 464 skilled technicians, who are now filling responsible positions and are being paid excellent salaries. Many of these graduates have been promoted to key positions of industrial leadership.

BUILDINGS AND EQUIPMENT

The Southern Technical Institute is located on a campus which was once part of the Atlanta Naval Air Station. Two large buildings formerly used as officers' quarters are now used as student dormitories. Three large buildings house the shops and laboratories, and another building serves as the main classroom building, although all buildings contain some classrooms. The Administrative Building houses all the administration offices, the book store, library, post office, and several classrooms. The Dining Hall and Snack Bar are completely equipped and adequately staffed. The entire area is served by a large, modern power plant.

LIBRARY

The library has a small but choice selection of fiction, biography, and other non-fiction, technical reference books, and general reference books. Newspapers, good popular magazines, and technical magazines are also provided.

ROOM FURNISHINGS

Each dormitory is furnished with single Hollywood type beds with innerspring mattress, dresser, study table, chairs, locked closets and a small locker space for luggage. The student will have to provide bed linen, blankets, towels and any other personal items that he may desire. Dormitory lights are of the ceiling type.

Married students may secure at reasonable rents one-bedroom or two-bedroom apartments, furnished or unfurnished, at the Tech-Lawson Apartments, only a short distance from the campus.

TUITION AND FEES

	Matriculation fee per quarter	Tuition fee per quarter	Medical fee per quarter	Student Activity fee per quarter	Total fees per quarter	Total fees per academic year
Residents of Georgia	$81.50	____	$3.50	$5.00	$ 90.00	$270.00
Non-residents of Georgia	81.50	$75.00	3.50	$5.00	165.00	495.00

NOTE: (a) Matriculation, tuition, student activity, and medical fees of veterans enrolled under PL 16 and PL 346 are paid by the Veterans Administration in accordance with the terms of those laws.

(b) An extra fee may be charged in special courses.

(c) A deposit of ten dollars ($10) is required of each accepted applicant for admission as evidence of good faith within two weeks after the Certificate of Acceptance has been issued. After enrollment this deposit will be credited to the student's fee account. A veteran enrolee may submit his Certificate of Eligibility rather than make the ten dollars deposit. An accepted applicant who has deposited ten dollars and decides not to enter may receive a refund by application to the Registrar not later than the opening date of the term for which the applicant has been accepted.

SUMMARY OF EXPENSES

(Estimated for Academic Year)
Regular Students (3 quarters or 9 months)

	Resident of Georgia	Non-Resident of Georgia
Matriculation, tuition, and other fees	$270.00	$ 495.00
Board, room, and laundry	550.00	550.00
Books and equipment	80.00	80.00

In order to provide boarding students of Southern Technical Institute with the best quality food at the lowest possible price, board and room are sold only as a unit. For the academic quarter the cost is $150.00, which includes a dormitory room and three meals a day except Sunday and official school holidays, when the dining hall will be closed. This cost may be paid in monthly installments and may vary slightly according to the cost of food.

The rates for fees, board, and room are subject to change at the end of any quarter.

OTHER FEES

Each member of the senior class must pay a diploma fee of $5.00 before graduating.

Examinations at other than the regular examination times will be granted in exceptional cases and only by faculty action. A fee of $2.00 will be charged in all such cases.

BOOKS AND SUPPLIES

The student should set aside $20.00 to $25.00 a quarter for books, notebooks, pencils, and other incidentals.

LATE REGISTRATION

A late registration fee of $3.00 for the first day and $1.00 for the second and third days, the total amount not to exceed $5.00, will be charged. Exceptions to above will be made for proved emergencies or for sickness certified by doctor's statements.

REFUND OF FEES

Refunds of tuition and other educational fees may be made only upon written application for withdrawal. Student activity and medical fees are not refundable.

Students who formally withdraw within one week following the scheduled registration date are entitled to a refund of 80% of the fees paid for that quarter.

Students who formally withdraw during the period between one and two weeks after the scheduled registration date are entitled to a refund of 60% of the fees paid for that quarter.

Students who formally withdraw during the period between two and three weeks after the scheduled registration date are entitled to a refund of 40% of the fees paid for that quarter.

Students who formally withdraw during the period between three and four weeks after the scheduled registration date are entitled to a refund of 20% of the fees paid for that quarter.

Students who withdraw after a period of four weeks has elapsed from the scheduled registration date will be entitled to no refund of any part of fees paid for that quarter.

REFUND OF ROOM AND BOARD CHARGES

Refunds on room and board charges will be made only if the student formally withdraws from school and only in accordance with the above schedule for refund of fees.

Students who are expelled from school will receive no refunds of their fees, or of room and board.

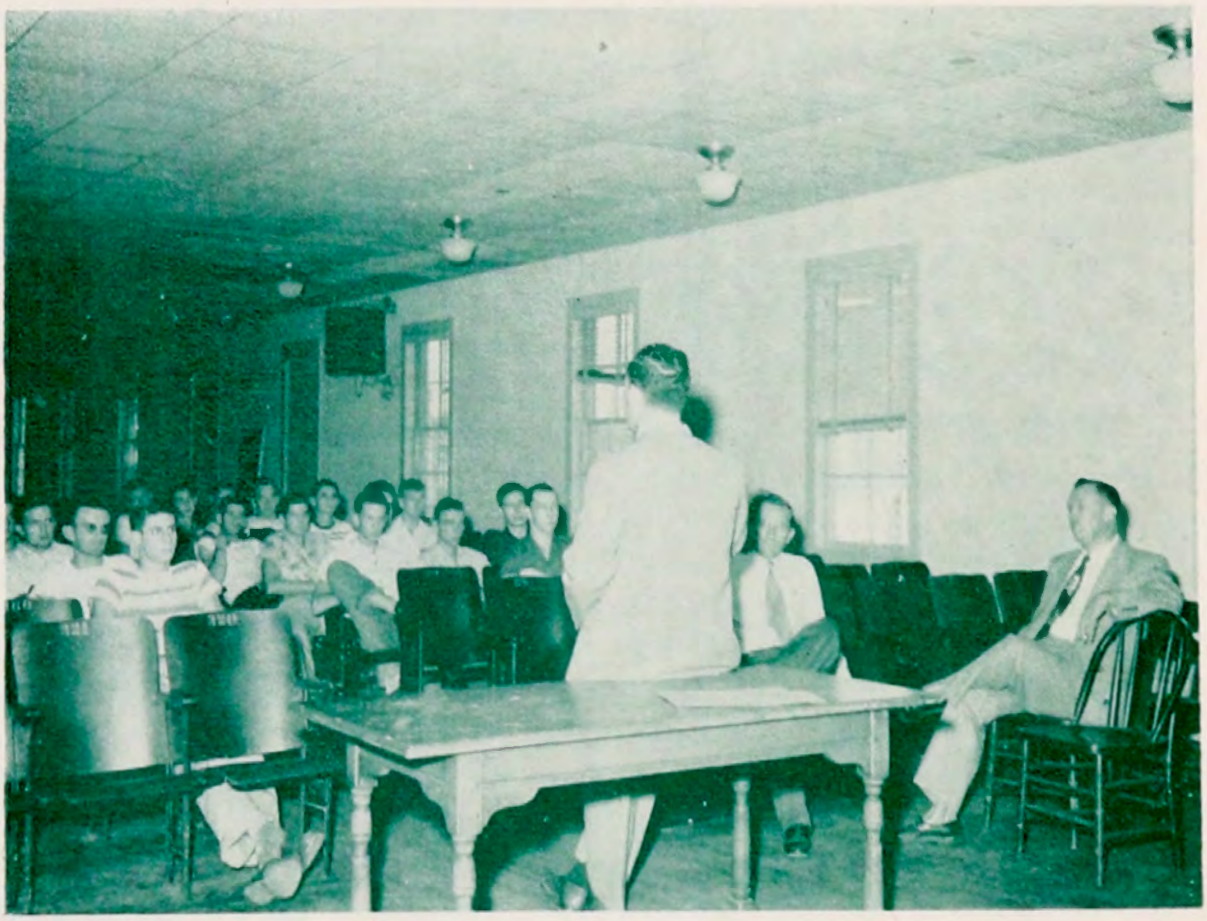
LEGAL RESIDENCE

"To qualify for Georgia tuition the student's parents must be legal and actual residents of Georgia." Legal residence is more fully defined by Section 32 of the Acts of the Georgia Legislature of 1912, which reads:

"BE IT ENACTED—That the non-resident students of the Georgia Institute of Technology who are required to pay tuition as non-residents, shall be those who reside without the limits of the State at the time when they matriculate in said institution. No student who matriculates as a non-resident shall afterwards be entitled to the benefit of resident tuition simply from the fact that he has elected to make Georgia his domicile. Any such non-resident shall be entitled to the benefits and privileges of the student as to tuition, only when the family, consisting of the parents or guardians of said non-resident student, shall remove to the State of Georgia with the intention of becoming domiciled therein." (Georgia Code of 1933, Section 32-103; note reference to the Act of 1912)

III. SUPERVISORY TRAINING

The Technician Learns to Train and Supervise Others



VETERANS PROGRAM

The school is approved for the training of veterans under Public Law 346 ("G. I. Bill of Rights") and Public Law 16 (Disability). Veterans eligible for training under either bill may apply directly to the nearest Veterans Administration office or may receive necessary information by writing or calling Southern Technical Institute (Atlanta No. 47-3164, Chamblee No. 7-3164).

HEALTH CARE

The medical fee paid by the student entitles him to clinical services for minor illnesses by doctors at the Chamblee Hospital. The facilities of the hospital on the main campus of the Georgia Institute of Technology are available for the use of Southern Tech students who require temporary hospitalization.

Free service does not apply to the following: major surgery, elective surgery, specialist's care, orthopedic appliances, special laboratory examinations, special nurses, medications, hospitalization in cases of the more serious contagious diseases, or students who are ill electing to remain outside the infirmary. In these instances the student, parent or guardian is responsible for such added expense.

ADVISORY COUNSELOR

All students registered or enrolled at Southern Technical Institute will have the opportunity of consulting with a competent advisor about any problems which may arise. Specialists of Southern Technical Institute act as advisors in their particular fields.

First-quarter students are given aptitude and interest tests during their first week at the school. Advisory counselors use the test scores as guides in advising the students in their departments.

AVAILABLE SCHOLARSHIPS

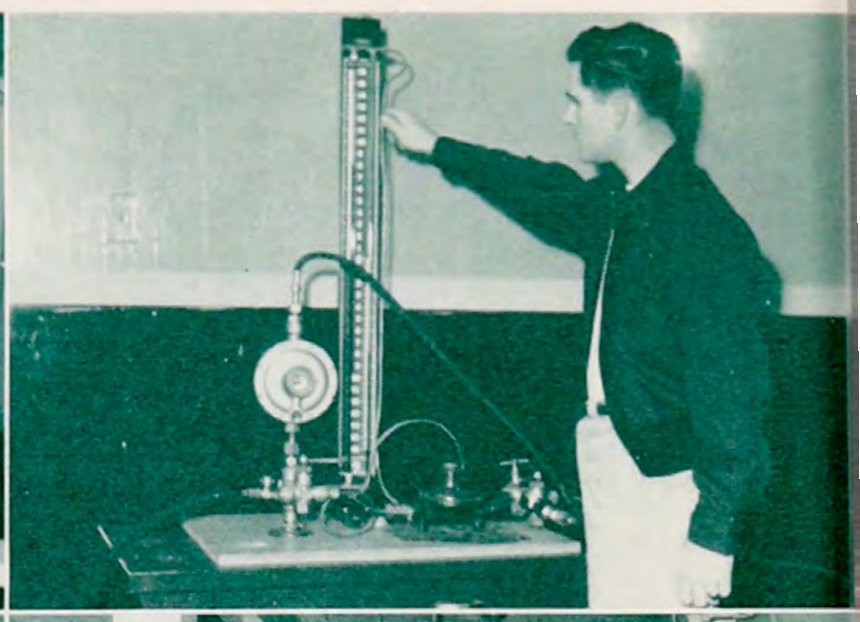
Four annual William Pratt Heath—Coca-Cola Company scholarships of $225.00 each were permanently established in the fall of 1950.

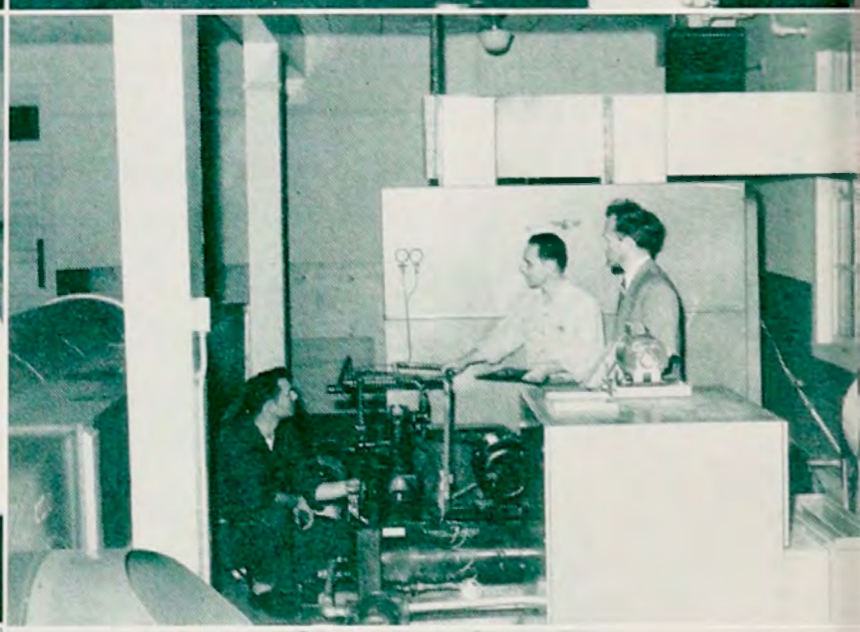
Southern Technical Institute has been selected by the gas fuel industry as the training headquarters for providing an adequate reservoir of trained gas fuel technicians. This is the only school in the nation to offer a two-year course in Gas Fuel Technology.

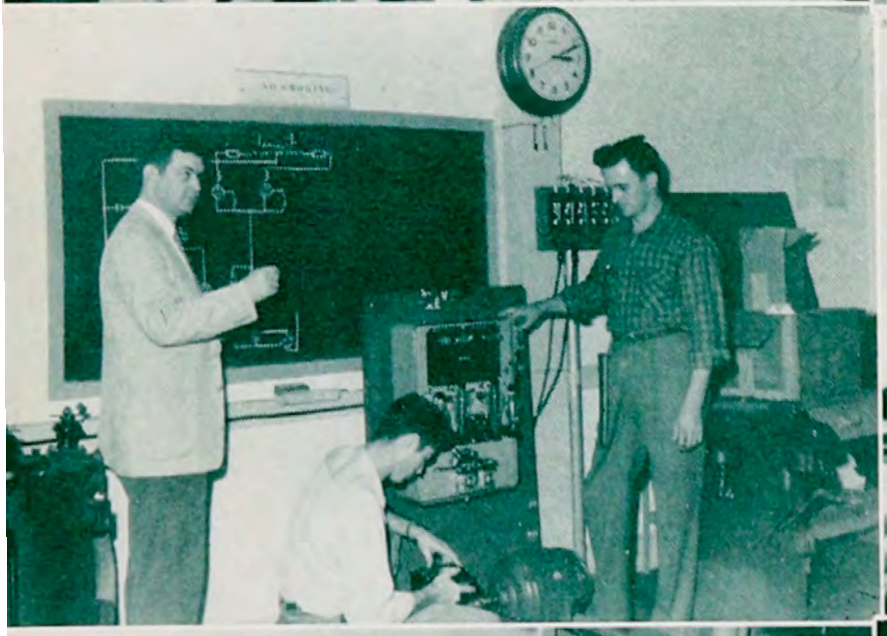
Thirty-six Gas Fuel Scholarships paying all tuition and fees for eighteen months were made available for the 1951-52 term.

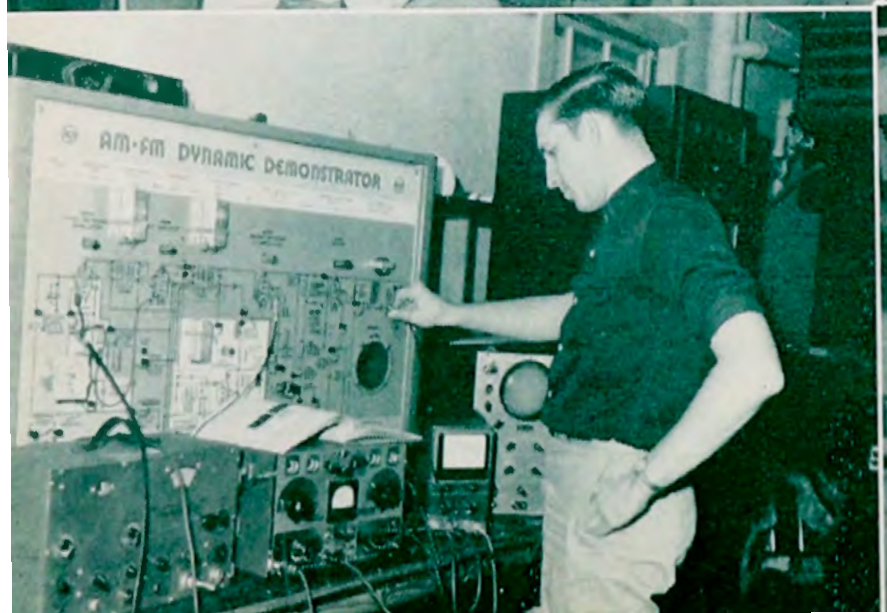
The following firms contributed the thirty-six scholarships totalling $25,200.00.

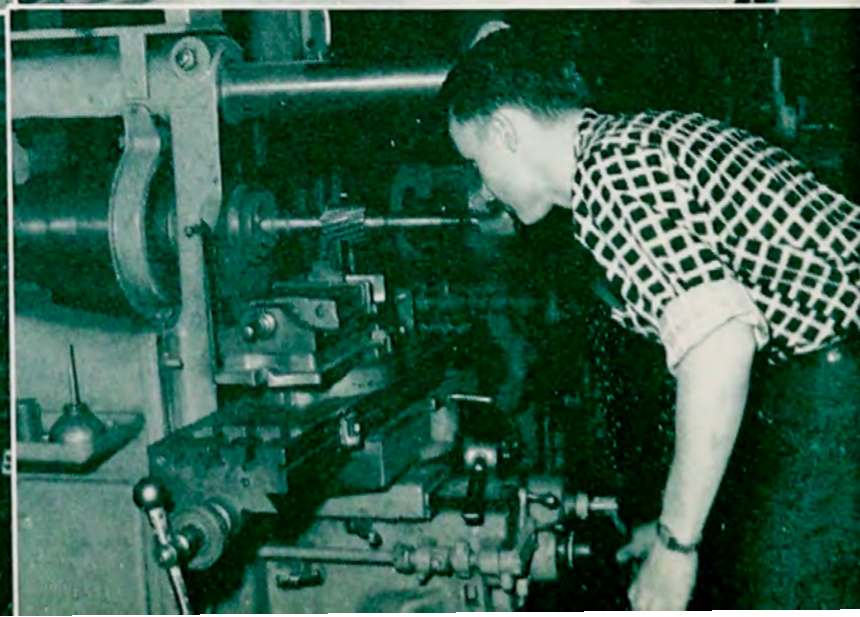
IV. TECHNICAL SPECIALTIES











DONORS OF IN-STATE SCHOLARSHIPS

Atlanta Gas Light Company.
Automatic Gas Company of Columbus, Inc.
Carolina Butane Gas Company, Inc.
Charles S. Martin Distributing Company, Inc.
Community Gas Company.
Delta Tank Manufacturing Company, Inc.
Economy Gas & Appliance Company.
Gas Equipment Supply Company.
Georgia Automatic Gas Company.
Georgia Distributors, Inc.
Georgia L-P-Gas Association.
Hopkins Equipment Company.
Horne-Wilson, Inc.
Noland Company, Inc.
Rumbold & Company, Inc.
Southern Gas Corporation.

DONORS OF OUT-OF-STATE SCHOLARSHIPS

Butane Gas of Mississippi and Alabama.
The Dri-Gas Corporation.
Fisher Governor Company (Fisher Foundation).
The Parlett Gas Company.
Skelly Oil Company.
Servel, Inc.
The Weatherhead Company.

GAS FUEL TECHNOLOGY FOUNDATION

The Liquefied Petroleum Gas Association, at its Board of Directors Meeting on September 14, 1951, established ""The Gas Fuel Technology Foundation," which will distribute scholarships to applicants from every state in the Union. Information about scholarships may be obtained from the Scholarship Committee, Southern Technical Institute, Chamblee, Georgia.

PART-TIME JOBS

There are fifteen to twenty campus jobs available to qualified students who need extra money to defray school expenses. Information about these jobs may be secured from the head of the department in which the student is enrolled.

Many students have been able to secure off-campus work in the afternoons and on week-ends. Scheduling work off the campus depends upon the student's class schedule, which will vary from quarter to quarter.

PLACEMENT SERVICE

The Placement Service of Southern Technical Institute and of the Georgia Institute of Technology is available to all students graduating from Southern Technical Institute. The emphasis is directed toward placing students in their last quarter, but the service is available any time after graduation. This function of the placement service is to guide and direct the student in obtaining the job most suitable for his individual abilities, likes, and dislikes.

This service is in the form of maintaining active contact with approximately 4800 national concerns; keeping available for the students informative booklets, brochures, annd industrial directories; arranging group and individual job interviews; and giving advice to the prospective graduate on any phase of job seeking.

The placement staff consists of a part-time secretary and two regular faculty members. Their services are available at regularly scheduled hours.

Placement Director Wilkinson Helps Graduating Senior With Job Application

ACADEMIC REQUIREMENTS

ENTRANCE DATES AND REQUIREMENTS

Beginning students who plan to take first-quarter subjects at Southern Tech are accepted for admission in September and March only. Students transferring with advanced credit from other colleges may enter STI at the beginning of any quarter, provided their transfer credits have qualified them for that particular quarter's work. The application of every transfer student will, however, be considered individually.

To be accepted for admission, the applicant must be a graduate of an accredited high school, or possess the equivalent study or training.

An eligible student seeking admission to the Institute must file with the Registrar an Application for Admission and a transcript of his high-school work, or its equivalent.

Students may be admitted with advanced standing

1. By transfer of credits from other technical institutes or colleges or universities.
2. By evaluation of previous work or technical experience.

An official transcript of transfer credits must be submitted before the end of the first week the student enrolls.

ELECTIVES

With special permission of his faculty advisor, a student may choose as electives subjects from any course of study taught at Southern Tech. However, his quarterly study load cannot exceed 21 hours. If, for example, the required work in the student's own field in any quarter totaled 18 hours, he could choose a three-hour elective to make his study load the maximum 21 hours.

No classes will be scheduled in the first, second, or third quarters with an enrollment less than twelve. No classes will be scheduled in the fourth, fifth, or sixth quarters with an enrollment less than ten.

GRADUATION REQUIREMENTS

A student is eligible for graduation when he (1) has satisfactorily completed the required number of hours specified by the curriculum of the course in which he is specializing, (2) has achieved the necessary scholastic point average (1.7), and (3) has paid all required fees.

Southern Tech awards a technician's diploma to each student who satisfactorily completes the required program of study for his chosen field as outlined in this catalogue.

Beginning with the 1952-53 academic year only one graduation exercise a year will be held—that in June, at the end of the spring quarter.

RULES AND REGULATIONS

Every student is obligated to become thoroughly acquainted with "Student Rules and Regulations," a pamphlet placed into his hands on Registration Day and covering attendance, grades, point averages, conduct, withdrawal from school, activities, etc.

Southern Technical Institute

Chamblee Georgia

This Certifies That

Maris Clark McMullen, Jr.

having satisfactorily completed the technician's course of study authorized by the Board of Regents of the University System of Georgia and prescribed by the Georgia Institute of Technology for the Southern Technical Institute, is hereby granted this

Diploma

in

Electrical Technology

Given under our hands, this ninth day of September, 1950

Walter R. Davis
President, Georgia Institute of Technology

L. V. Johnson
Director, Southern Technical Institute

R S Hamill
Director, Engineering Extension Division

L. G. Bryant
Registrar, Southern Technical Institute

The Graduate's Reward—A Southern Technical Institute Diploma

EXTRACURRICULAR ACTIVITIES

The Technician

Technician's Log

Athletics

Honor Society

Student Council

Campus Clubs

Officials of the Southern Technical Institute believe so strongly in the benefits of extracurricular activities that they urge every student to participate in them. These student activities are most helpful in developing good health, the social graces, well-rounded personalities, and dependable leadership. They offer the student wholesome diversion from classroom, shop, and laboratory, and give him opportunities for creative self-expression. They build school spirit, keep it bouyant, and serve to unify administration, instructors, and students into one enthusiastic, loyal group. The Southern Technical Institute sponsors, therefore, an athletic program, a school paper, an annual, social events, and worthwhile student organizations.

PUBLICATIONS

Students who are interested in publications may become members of the staffs of the student newspaper and the year book. *The Technician,* a monthly newspaper, and the *Technician's Log,* a yearbook published each June, are sponsored and produced by students. These publications offer excellent opportunities for writers, cartoonists, and advertising salesmen to acquire valuable experience and to extend their interests into activities outside their courses of study.

Staff members who meet the requirements of publications work receive special recognition on Awards Day near the end of the spring quarter, when keys, trophies, letters, and other awards are presented to students who have been outstandinng in extracurricular activities.

THE Technician

A Unit of Georgia Tech

Vol. IV | Southern Technical Institute, Chamblee, Ga., January, 1952 | No. 5

West Fulton Seniors Visit STI

20 West Fulton Students Visit, Tour Southern Tech

Accompanied by their counselor, Mr. C. R. Brown, 20 seniors from West Fulton High School s... most of Wednesday, January ... at Southern Tech getting bet... acquainted with the school's ... cilities, equipment, staff, and lev... of training.

The enthusiastic group arrive... about 10:30 o'clock, were welcomed by Registrar L. Y. Bryant and Mr. G. L. Carroll, head of the Basic Studies Division, and then assembled in the Conference Room. Here Mr. Bryant and Mr. Carroll acquired from them some essential data and then talked to them for several minutes about Southern Tech and the technician's level of training.

All Tour the Campus

A tour of the campus, which began about eleven, carried the students into all the shops, laboratories, and other buildings wherein any portion of the school work is carried on. There they met many members of the STI staff, who explained their part in the training process and the functions that their subjects and equipment play in the 18-... cont... work... equip... nician... unders...

West... the visi... Lade, E... Larry B... Jr., Carro... Ronald Sn... Webb, Jr.,

(Conti...

STI to Train 150 Lockheed Men in Basic Electronics

50 Trainees Already Here; Others to Come in Groups Of 25; 50 Have Graduated

Mr. L. V. Johnson, director of Southern Tech, announces a recent agreement with Lockheed Aircraft Corporation to train 150 men in basic electronics.

The first component of 25 men arrived January 14. Other groups of 25 will arrive on February 25, May 26, and July 14. The last segment of 50 will begin their studies on October 13.

These men were preceded by 50 others who have just finished their 19-weeks' training in basic electronics.

Another announ... Johnson ... the ... had ... on. ... t-... at ... e

... producing com... by assembling ... best ... nits into an educationa... about twenty-five minut... Recent reports state th... is about 90% assembled ... be finished by Januar... the final version wit... will have to be ma...

Though the ma... shots of The Techr... try were made a... ture does not pu... tute or any oth... designed as an ... ture showing ... velopment of ... need and op... nically traine... Southern Te... the film wit... Southern C... General E... and other ...

Enrollment Is Encouraging; 286 Total for Winter Term

111 Veterans, 175 Non-Vets in Number; E & R Leads With 61; Two Co-eds Back

Southern Tech enrolled a total of 286 men and women for the winter quarter, 27 of whom were new students. Of this number 111 are veterans taking advantage of educational rights in the GI Bill, and 175 are non-veterans.

quarter's total of 292, considering the fact that 22 of this number finished their work in December and did not return.

The Electronic and Radio Department, with 61 students, leads STI's eight divisions in number enrolled. Next in size is the Mechanical Department, with 48. Building Construction's 47 students places it third. Other departments rank in this order: Gas Fuel, 45 students; Electrical, 27; Industrial, 25; Heating & Air Conditioning, 18; and Civil, 15.

Co-eds Return

Miss Elizabeth Melton and Mrs. Elizabeth Newberry, STI's two co-eds, return to continue their study in BC and E & R, respectively.

Two dozen scholarships provided by Gas Fuel industries over the United States are assisting 24 students to attend Southern Tech, and three are being assisted through Coca-Cola scholarships. The Division of Vocational Rehabilitation is helping 11 students ... attend STI, the largest number ... is agency has assisted at one ... e since Southern Tech opened.

... wo replacements on the STI ... lty were made necessary ... gh resignations. Mr. John ... an, who comes to STI from ... rson State Teachers College, ... lphia, Arkansas, takes Mr. ... Slicer's place in the Eng... partment. Mr. Earle A. ... author and outstanding ... on Gas Fuel Technology, ... Fred Lewis' place as head of the STI Gas Fuel Department.

Please Observe Dates

Attention of students and staff is called to the remaining dates on the winter quarter's calendar:

February 6—Last date for dropping a subject from study list without penalty.

February 9—End of deficiency report period.

... 19—End of term.

... Spring recess.

Students Granted March Graduation

There will definitely be a grad... uation exercise for D... ber and March grad... end of th... John...

... technically ... ver. If we are to ... ain technical superiority in a world where each power is striving to out-produce the other, it is imperative that every possible step be taken to attract more students ... hnical careers."

... in Industry, he ... give the

Messrs. Pitman and Clifford Replace Slicer and F. Lewis

Two new instructors joined the teaching staff of the Southern Technical Institute at the beginning of the winter quarter. By now students have probably learned that Mr. John Pitman and Mr. E. A. Clifford know their jobs and that they are here to help.

Mr. Pitman, who is assuming Mr. D. H. Slicer's duties as English instructor, is a widely traveled, learned gentleman. He is of English birth, his wife is of Canadian birth, and his daughter is of American. On top of that, his father is Bermudian.

Has B.A., M.A. Degree

After receiving a B.A. degree from Washington State College and an M.A. at the University of Florida, Mr. Pitman taught college subjects and worked in advertising, public relations, and news reporting. Seven years of his life were spent in the U. S. Air Force.

Mr. Clifford comes to STI with very high recommendations from the Liquefield Petroleum Gas Industry, the Advisory Committee of the Southern Tech Gas Fuel Department, and other industrial groups.

Mr. Clifford was born at Winthrop, Maine, May 24, 1899. He graduated from high school in 1917, at Winthrop, Maine. He received a B.S. degree in 1922 from Bates College, Lewiston, Maine, and a B.D. degree from Oberlin College in 1925.

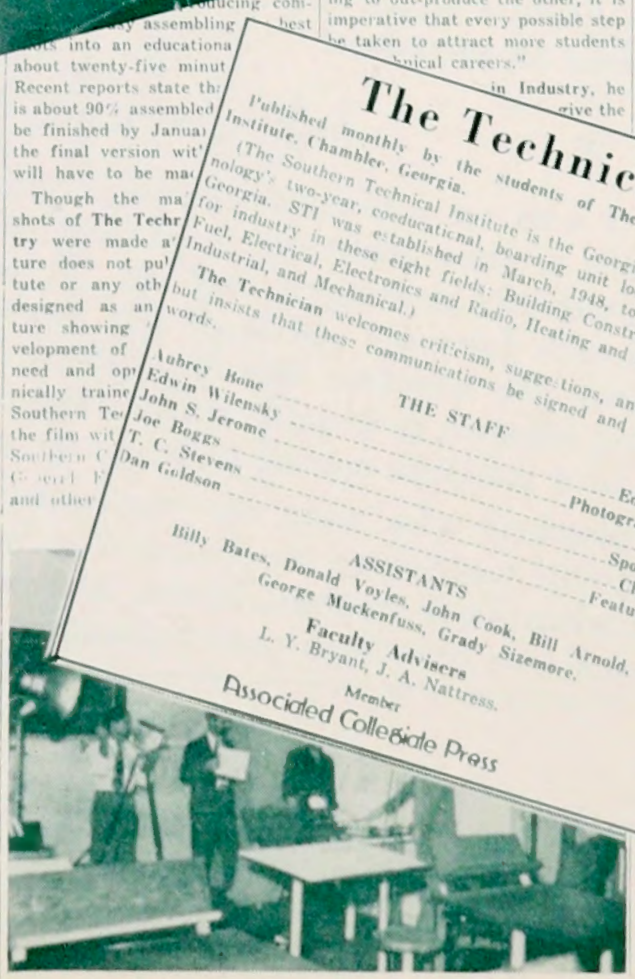
Students Warned Of SS Test Date

Students now in school who have not previously taken the Selective Service College Qualification Test and who plan to request deferment are reminded that only one more date remains in the scholastic year on which they may take the test.

The 1951-52 series of tests will be given on Thursday, April 24, at over 1000 different testing centers throughout the nation. Application blanks for the April 24 test must be postmarked not later than midnight March 10.

Students who plan to take the test should go to any local draft board, obtain an application blank, fill it in completely, and mail it to the Educational Testing Service, Princeton, New Jersey—the address on the card.

The student has the right to choose his testing center. However, since STI students will be ... school on April 24, the most



The Technician

Published monthly by the students of The Southern Technical Institute, Chamblee, Georgia.

(The Southern Technical Institute is the Georgia Institute of Technology's two-year, coeducational, boarding unit located at Chamblee, Georgia. STI was established in March, 1948, to train technicians for industry in these eight fields: Building Construction, Civil, Gas Fuel, Electrical, Electronics and Radio, Heating and Air Conditioning, Industrial, and Mechanical.)

The Technician welcomes criticism, suggestions, and contributions, but insists that these communications be signed and limited to 300 words.

THE STAFF

Aubrey Bone ..... Editor-in-Chief
Edwin Wilensky ..... Photography Editor
John S. Jerome ..... Art Editor
Joe Boggs ..... Sports Editor
T. C. Stevens ..... Club Editor
Dan Goldson ..... Feature Editor

ASSISTANTS

Billy Bates, Donald Voyles, John Cook, Bill Arnold, George Muckenfuss, Grady Sizemore.

Faculty Advisers

L. Y. Bryant, J. A. Nattress.

Member

Associated Collegiate Press

...Honor ...e Men ...ecord

... twelve-weeks' ... the fall quarter ... out of it with a ... better.

... this list with a ... A" average, came ... Russell Chiselbrook, ... son, John F. Mosny, ... D. Simpkins.

... Duke, E & R stu... ed close with a 3.90 ... nd Philip Christensen, ... er, Gas Fuel man, filled ... level with a 3.82 aver...

...any Make Honors

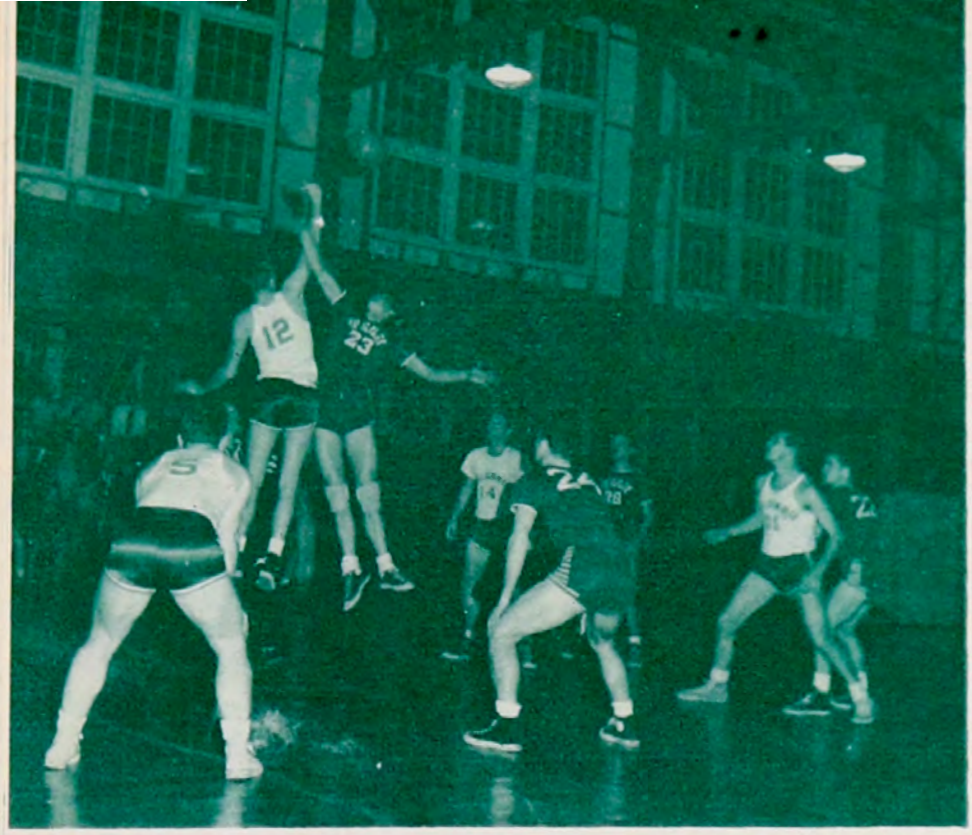
... ems that some industrious ... ts are really determined to ... ate "with honor" and "with ... honor." It is necessary to ... an over-all average of 3.30 ... all six quarters to graduate "with honor" and to have an overall average of 3.60 to graduate "with high honor."

Following are the students who made a 3.0 average or better. All eight departments are represented.

Louis C. Baugnon, 3.23; Robert

Editors and Advisor Talk It Over

The 1952 LOG Staff



Action on the Court

and on the Baseball Diamond

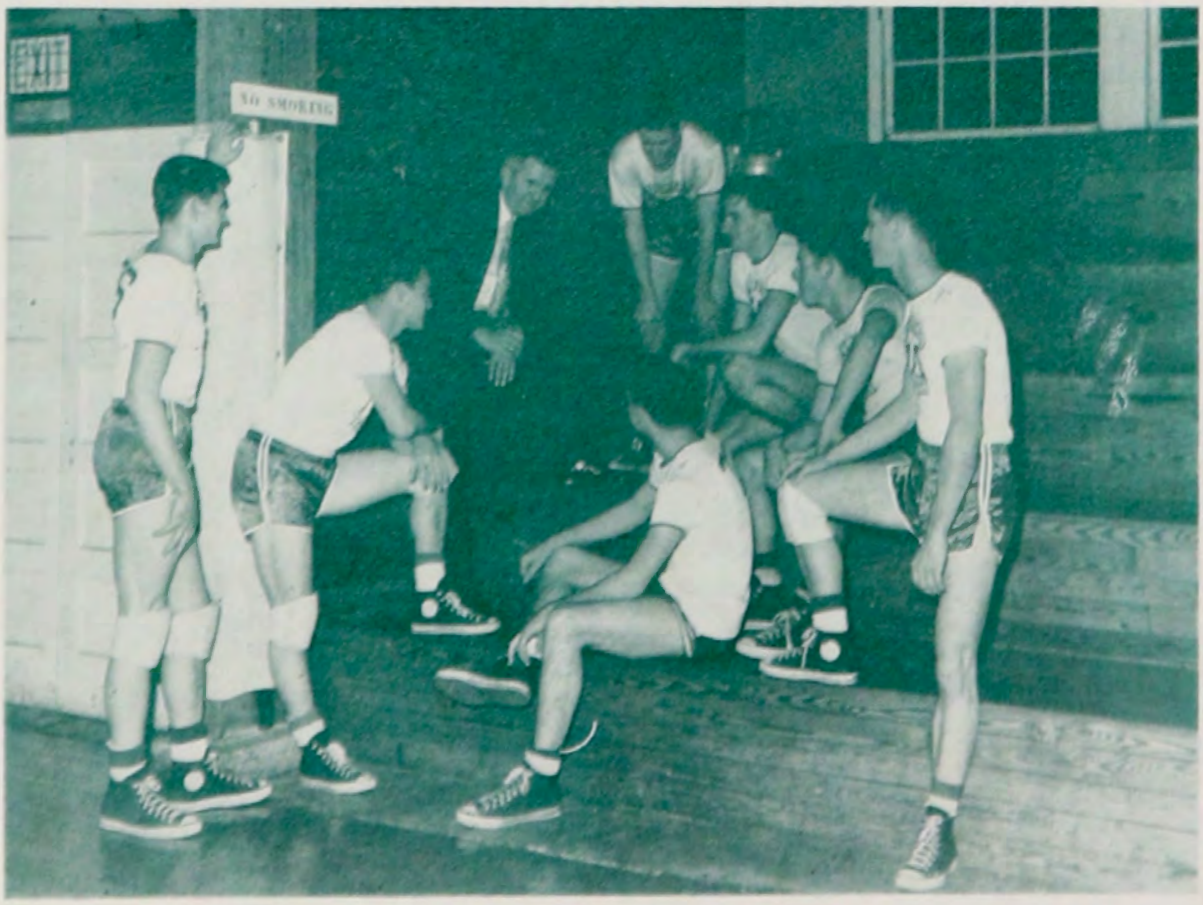
Baseball Squad

ATHLETICS

The athletic program has been developed in two separate phases, intramural and intercollegiate. Intramural competition is between departments and includes touch football, basketball, volleyball, tennis, golf, and softball. A trophy is presented to the winning department at the end of the year. An All-Campus team is selected in all the major sports, and each student so honored is awarded a gold medal.

Intercollegiate competition is conducted with schedules in varsity and freshman basketball, tennis, golf, cross-country, baseball, and track. An athlete who earns a letter in an intercollegiate sport is eligible for membership in the Monogram Club. This club has as its purpose the development of sportsmanship and athletics at Southern Technical Institute. One phase of this is in their sponsorship of the intramural program, where the varsity athletes act as department coaches and game officials for all intramural competitions. The club also presents a dance as a climax to the Awards Day program held the last week-end of every May. Graduating seniors and outstanding high school athletes are the guests of honor at this important event on the social calendar.

The physical plant includes a full-size college basketball court in a 1000-seat gymnasium, tennis courts, football field, baseball and softball diamonds, and an outdoor volleyball court. Future plans call for a quarter-mile cinder track around the football field.



Just Before the Battle

Student Council

Social Life
Isn't
Neglected

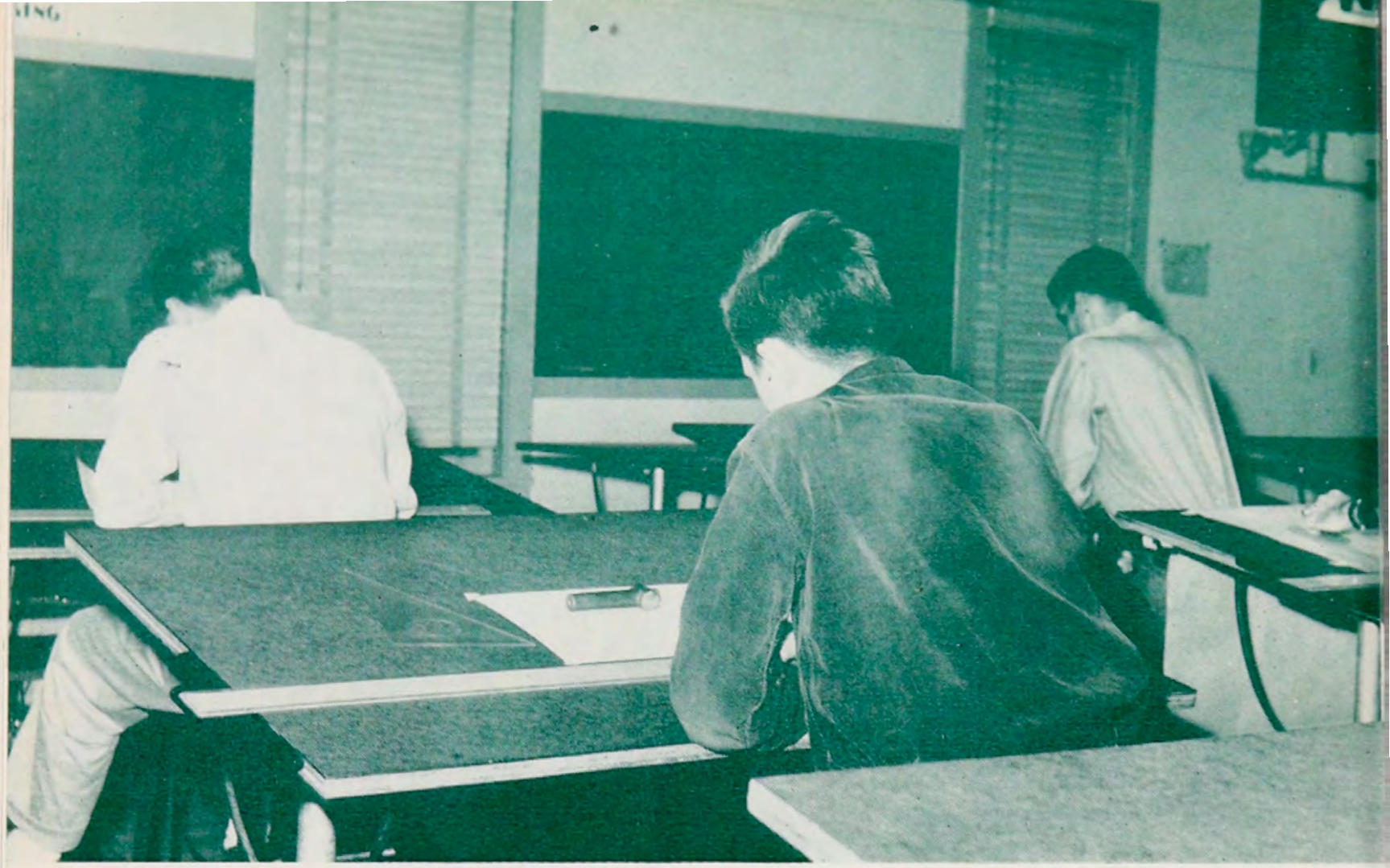
Minstrel and Variet
Show

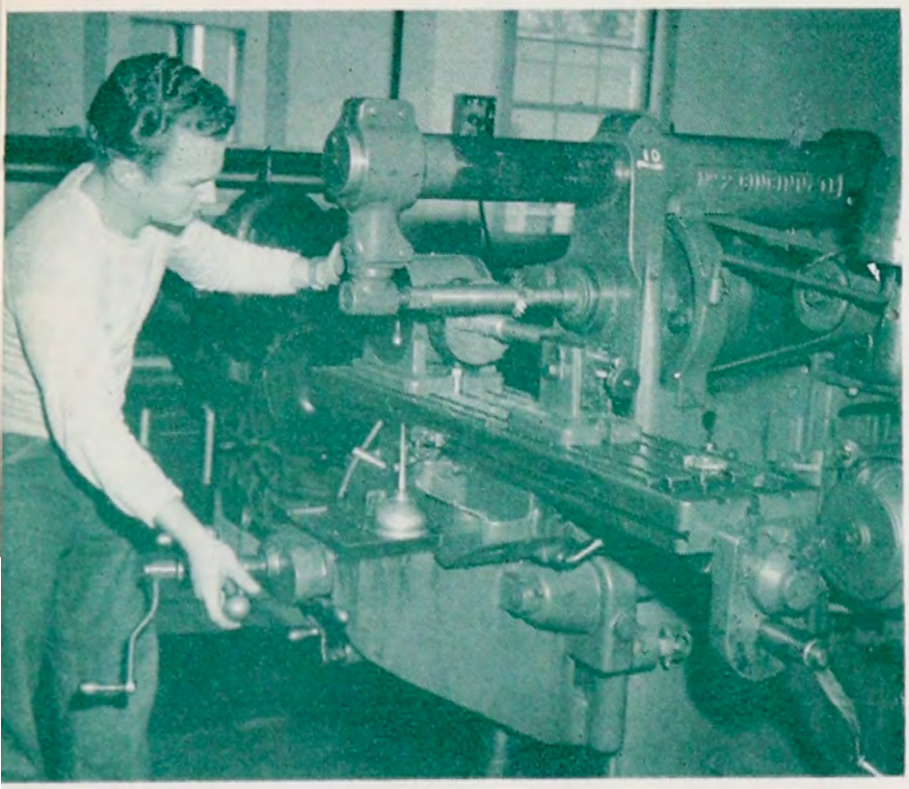
CAMPUS ORGANIZATIONS

Many campus organizations provide both stimulus and opportunity for personal development that is rich and varied. Each student has his departmental club: Industrial's "Iota Tau," Mechanical's "Mech," Heating and Air Conditioning's "Hot Air," Building Construction's "Alpha Beta," Radio and Electronic's "Electrons," the "Electrical," and "Civil." These clubs provide opportunities for participation in creative projects, intramural sports, and such social functions as fish fries, barbecues, picnics, and dances. Visiting speakers inform the club member along his line of interest. Each club has its lounge in which a student may relax between classes.

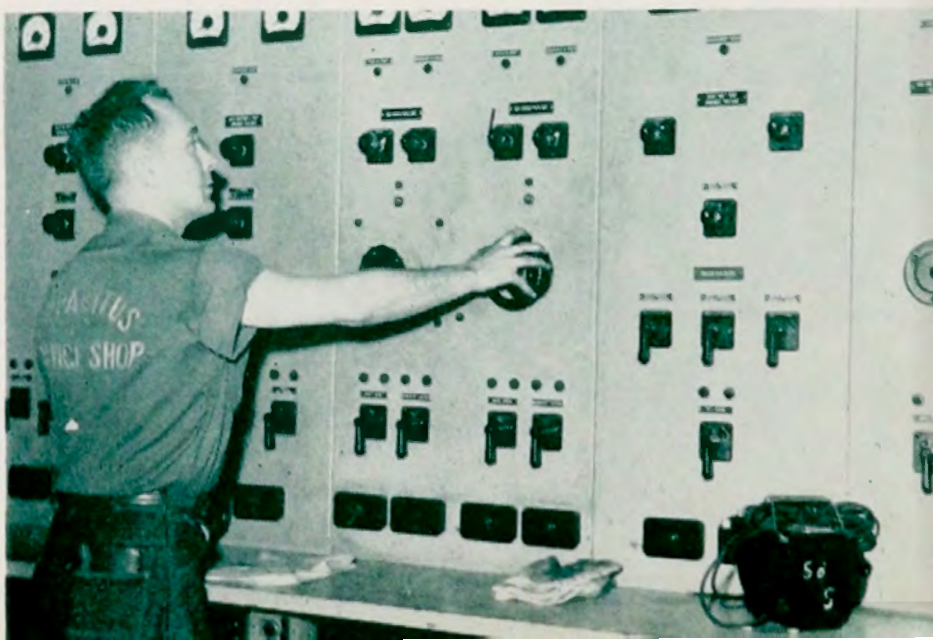
In addition, a student may join the Photo Club, which has a well-equipped darkroom; the Radio Club, which has its own amateur station; or the Glee Club, which makes music and many interesting trips. Superior classroom achievement is recognized by membership in the Honor Society, and ability in leadership by membership in the Presidents' Club. A student may participate in joint Student-Faculty Rules and Regulations and Honor Committees, or, elected to represent his department on the Student Council, take part in controlling elections, supervising all student activities, chartering student organizations, and conducting mass meetings.

The Honor Society

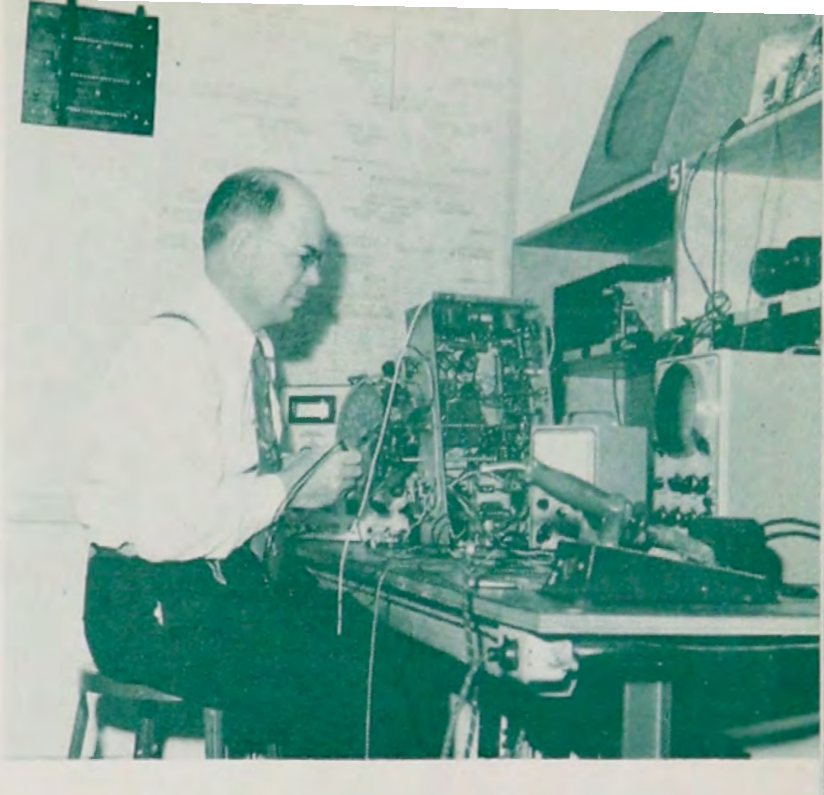


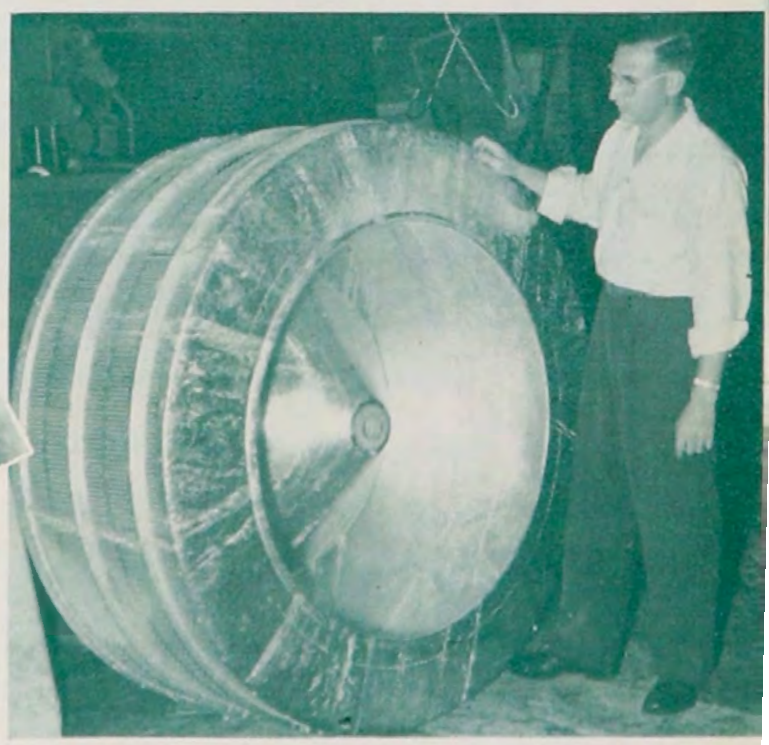


THE TECHNICIAN AT WORK



THE TECHNICIAN AT WORK





Wholesome Meals, Cafeteria Style

Dormitory Rooms Afford Comfortable Living

SOUTHERN TECHNICAL INSTITUTE
COURSES OF STUDY

BUILDING CONSTRUCTION TECHNOLOGY

CIVIL TECHNOLOGY

ELECTRICAL TECHNOLOGY

ELECTRONIC AND RADIO TECHNOLOGY

GAS FUEL TECHNOLOGY

HEATING AND AIR CONDITIONING TECHNOLOGY

INDUSTRIAL TECHNOLOGY

MECHANICAL TECHNOLOGY

All of these courses are accredited by the Engineers' Council for Professional Development except Gas Fuel Technology, which was established so recently that the ECPD has not had an opportunity to evaluate and accredit it.

Curricula and Course Content

The curricula of the various courses are listed on the following pages. A description of each subject may be found following the Mechanical Technology course, listed in alphabetical order as to general subject and classified in numerical order under the general subject head.

The numbers following the subjects may be explained by the following example. T. Phys. 12 (Elec.) 5—3—6 indicates a first quarter subject in Technical Physics meeting five hours per week in class and three hours per week in the laboratory or problem section, making a total of six quarter hours per week scheduled for the subject.

BUILDING CONSTRUCTION

Building Construction Technology is concerned with the design, supervision, and construction of homes, factories, banks, schools, stores, hospitals, and municipal and government projects. The work is at once creative and practical; the student is taught to design, draw plans, and follow through with construction details and methods.

Emphasis is placed on Architectural Technology, which offers such subjects as building specifications and codes, blueprint reading, building design, and costs and estimates. Basic subjects such as physics, mathematics, English, human relations, small business management, general woodwork, technical writing, and public speaking are included.

Successful graduates in this course are presented with many varied job opportunities in architectural and engineering offices and with building contractors and manufacturers of building materials.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
Arch. T. 12 (Arch. Hist.)	3	0	3
T. Dr. 11 (Tech. Draw. I)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Mech. T. 37 (Gen. Woodwork)	0	6	2
Total	11	15	16

Second Quarter

	C	L	T
Civil T. 21 (Graphic Statics)	0	3	1
Civil T. 32 (Elem. Surv.)	3	9	6
T. Eng. 21 Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
T. Phys. 22 (Mechanics)	5	3	6
Total	16	15	21

Third Quarter

	C	L	T
Arch. T. 31 (Graphics)	3	9	6
Arch. T. 33 (Bldg. Mat.)	3	0	3
Ind. T. 12 (Human Relations)	3	0	3
Mech. T. 36 (Applied Mech.)	3	0	3
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	15	12	19

Fourth Quarter

	C	L	T
Arch. T. 41 (Bldg. Design I)	3	12	7
Arch. T. 54 (Bldg. Equip.)	3	0	3
Mech. T. 51 (Strength of Mat.)	3	3	4
T. Phys. 12 (Electricity)	5	3	6
Total	14	18	20

Fifth Quarter

	C	L	T
Arch. T. 51 (Bldg. Design II)	3	9	6
Arch. T. 52 (Wd., Stl. Const.)	3	6	5
Arch. T. 55 (Costs, Estimates)	3	3	4
Civil T. 63 (Struc. Draft.)	0	6	2
T. Eng. 52 (Public Speaking)	2	0	2
Total	11	24	19

Sixth Quarter

	C	L	T
Arch. T. 61 (Bldg. Design III)	3	9	6
Arch. T. 62 (Concrete Const.)	3	6	5
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 51 (Contracts & Spec.)	3	0	3
Ind. T. 67 (Seminar)	1	0	1
Total	12	15	17

POSITIONS HELD BY STI GRADUATES IN BUILDING CONSTRUCTION

Engineering Draftsman
Estimator-Expediter
Template Maker
General Contractor (Partner)
Superintendent and Estimator
Manager, Lumber Company
Architectural Engineer
Building Contractor
Junior Engineer
Engineering Assistant
Assistant Superintendent (Lumber Company)
Architectural Draftsman
Architectural Draftsman and Estimator
Building Materials Salesman
Building Inspector
Appraiser and Inspector

BC Students Spend Much Time Solving Problems in Design

CIVIL TECHNOLOGY

The general field of Civil Technology is one of the broadest of the technological curricula. It includes many fields which, although not directly Civil Technology subjects, require a knowledge of Civil Technology and the principles of this subject. The civil technician is a versatile person. He is a surveyor and a construction man, not only on buildings but on hydroelectric projects, flood control work, highway and railroad construction, airports, sewerage and water supply systems, locks, dams, tunnels, aqueducts, and similar projects. It is the purpose of this course to qualify the student in any of these various fields so that he can handle the position with a minimum of supervision.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
Arch. T. 33 (Bldg. Materials)	3	0	3
T. Dr. 11 (Tech. Draw. I)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
Ind. T. 12 (Human Relations)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Total	14	9	17

Second Quarter

	C	L	T
Civil T. 41 (Route Surv.)	3	6	5
Civil T. 45 (Hydraulics)	5	0	5
T. Eng. 52 (Public Speaking)	2	0	2
Mech. T. 51 (Strength of Mat.)	3	3	4
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	16	12	20

Third Quarter

	C	L	T
Civil T. 21 (Graphic Statics)	0	3	1
Civil T. 32 (Elem. Surv.)	3	9	6
T. Eng. 21 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
T. Phys. 22 (Mechanics)	5	3	6
Total	16	15	21

Fourth Quarter

	C	L	T
Arch. T. 52 (Wd., Stl. Constr.)	3	6	5
Arch. T. 55 (Costs, Estimates)	3	3	4
Civil T. 63 (Struc. Draft.)	0	6	2
Civil T. 64 (Constr. Methods)	3	3	4
T. Eng. 62 (Tech. Writing)	2	0	2
Total	11	18	17

Fifth Quarter

	C	L	T
T. Chem. 31 (Gen. Chemistry)	5	0	5
Civil T. 62 (Land Surv.)	3	6	5
Mech. T. 36 (Applied Mech.)	3	0	3
T. Phys. 12 (Electricity)	5	3	6
Total	16	9	19

Sixth Quarter

	C	L	T
Arch. T. 62 (Concrete Constr.)	3	6	5
Civil T. 42 (Highways)	3	0	3
Civil T. 44 (W.&S. Plt. Op.)	3	0	3
Civil T. 51 (Top. & Con. Sur.)	2	6	4
Ind. T. 51 (Contracts & Spec.)	3	0	3
Ind. T. 67 (Seminar)	1	0	1
Total	15	12	19

POSITIONS CIVIL TECHNOLOGY PREPARES FOR

Instrument Man, Recorder, or Party Chief on the following types of jobs: transmission line layout; highway layout; airport construction; canal construction; property surveys; traverse and level parties, with the U. S. Coast and Geodetic Surveys, Army Engineers, Tennessee Valley Authority, the various private construction companies and Consulting Engineering firms.

Assistant to the City Engineer

Assistant to Construction Superintendent on Heavy Construction Jobs, such as, roadway paving and grading; pipe line construction and layout; airport construction; dam and lock construction; canal and aqueduct construction.

Assistant to Professional Civil Engineer

Assistant to Hydraulic Engineer

Cartographer

Topographer

Topographic Draftsman

Structural Draftsman

Concrete Laboratory Technician

Inspector or Estimator on Heavy Construction Jobs

Subdivision Designer

Field Work Plays an Essential Role in the Civil Technician's Training

ELECTRICAL TECHNOLOGY

The course in Electrical Technology is planned to provide (1) general training in the technical sciences of mathematics, physics, and drawing; (2) general training in composition and rhetoric, personnel relations, contracts and specifications, technical writing, and public speaking; (3) specific training in the generation, transmission, distribution, and utilization of electrical power; electrical circuit theory and application, electron tubes, basic electronic circuits, instrumentation and test equipment, transformers, direct and alternating-current machinery, industrial control equipment, telephony, illumination, electrical drafting, and industrial electronic apparatus.

Graduates of the electrical course should be able to fill responsible positions as production and maintenance technicians, laboratory and research technicians, electrical draftsmen, project and control technicians, powerhouse operators, and electrical equipment sales and service technicians.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Dr. 11 (Tech. Draw. I)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
T. Math. 11 (Algebra)	5	3	6
T. Phys. 12 (Electricity)	5	3	6
Total	13	12	17

Second Quarter

	C	L	T
Elec. T. 21 (A-C Circuits I)	5	3	6
T. Eng. 21 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
T. Phys. 22 (Mechanics)	5	3	6
Total	18	6	20

Third Quarter

	C	L	T
Elect. T. 31 (A-C Circuits II)	5	3	6
Elec. T. 33 (Electron Tubes)	5	3	6
T. Math. 31 (Applied Math.)	5	0	5
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	18	9	21

Fourth Quarter

	C	L	T
Elec. T. 45 (Rotating Mach.)	5	3	6
Elec. T. 47 (Telephony)	3	3	4
Elec. T. 48 (Polyphase Cir.)	5	0	5
Elec. T. 51 (Ind. Electronics)	5	3	6
Total	18	9	21

Fifth Quarter

	C	L	T
Elec. T. 42 (A-C Machines I)	5	3	6
Elec. T. 43 (Illumination)	2	3	3
Elec. T. 53 (Wiring Methods)	5	0	5
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 12 (Human Relations)	3	0	3
Total	17	6	19

Sixth Quarter

	C	L	T
T. Dr. 62 (Elec. Drawing)	0	6	2
Elec. T. 52 (A-C Machines II)	5	3	6
Elec. T. 61 (Elec. Power Distr.)	4	0	4
Elec. T. 64 (Seminar)	1	0	1
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 51 (Contracts & Spec.)	3	0	3
Ind. T. 67 (Seminar)	1	0	1
Total	16	9	19

POSITIONS THAT ELECTRICAL TECHNOLOGY PREPARES FOR

Graduates in Electrical Technology are basically trained for employment in many phases of power and communication work, the following being a partial listing of work offered to Electrical Technicians:

POWER AND LIGHT: electrician, electrician foreman, meter tester, relay tester, testing foreman, substation operator, mainstation operator, draftsman, estimator, inspector.

MANUFACTURING: inspector, tester, testing foreman, inspection foreman, salesman, electrician, electrician foreman, meter testing and calibration.

SALES-SERVICE: counter salesman, outside salesman, price clerk, customer serviceman, electrician, estimator, service manager, manufacturer's agent.

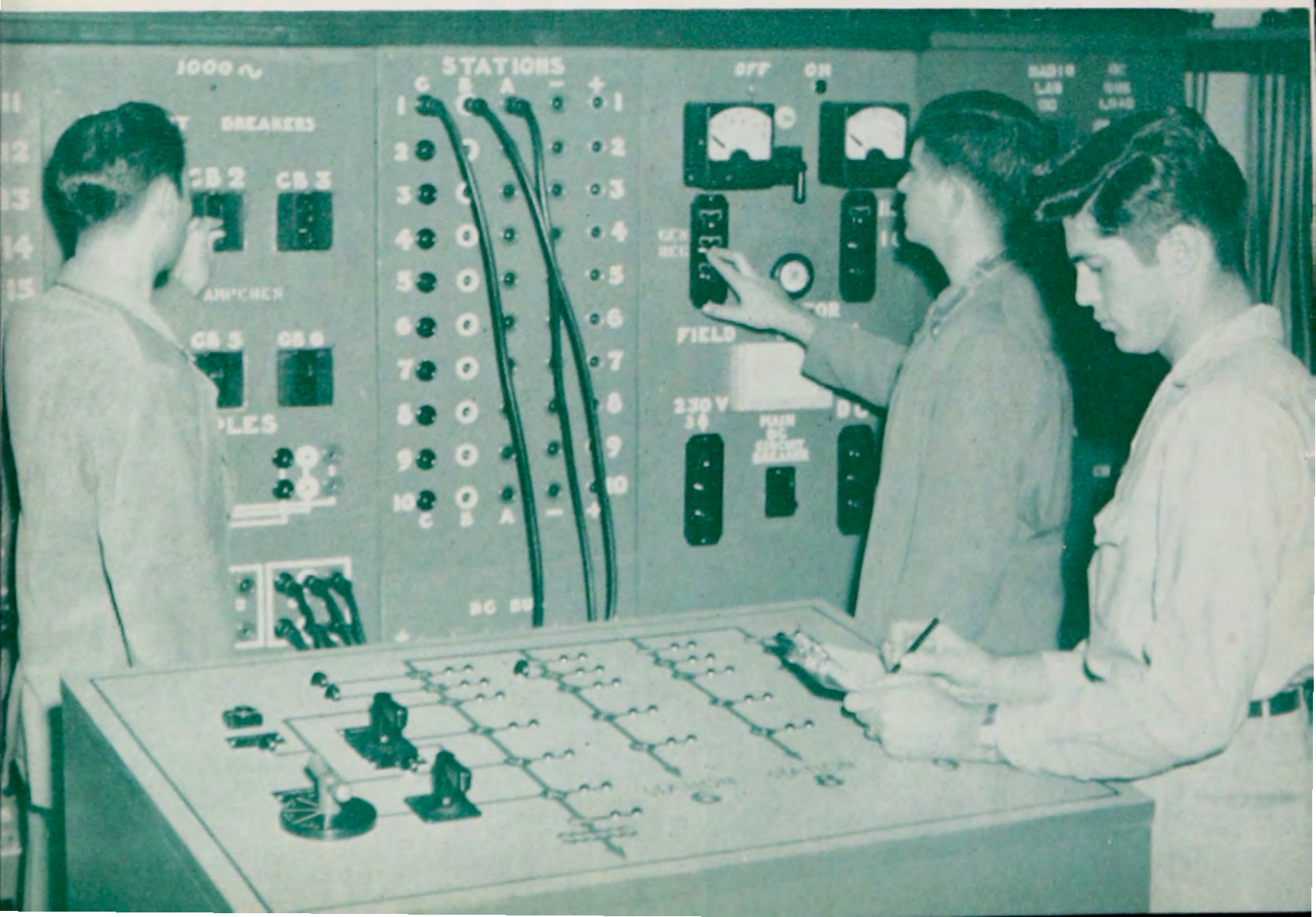
GOVERNMENT: engineering aide, electrician, building superintendent, power plant operator, inspector, draftsman, tester.

CONSTRUCTION: electrician, job foreman, draftsman, estimator.

TELEPHONY: distributing frame man, toll testboard man, wire chief, equipment man, repeater attendant, transmission man, installer, repairman, power plant attendant, cable tester, draftsman, service inspector.

MISCELLANEOUS: electrician, maintenance man, draftsman, railway signal inspector and maintenance man, engineering aide, assistant engineer, power house technicians.

The Power Control Panels Figure in Many ET Problems and Operations



ELECTRONIC AND RADIO TECHNOLOGY

The course in Electronic and Radio Technology is planned to provide (1) general training in the technical sciences of mathematics, physics, and drawing; (2) general training in composition and rhetoric, personnel relations, technical writing, and public speaking; (3) specific training in electrical and electronic circuitry, transmission lines, radiation, antennas, wave filters, instrumentation and test equipment, rotating electric machinery, industrial electronic control equipment, telephony, AM and FM radio, television, and radar.

Graduates of the electronics course should be able to fill responsible positions as production and maintenance technicians and project and control technicians in the fields of radio, television, X-ray, and radar; electronics laboratory and research technicians, and electronic equipment sales and service technicians.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Dr. 11 (Tech. Draw. I)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
T. Math. 11 (Algebra)	5	3	6
T. Phys. 12 (Electricity)	5	3	6
Total	13	12	17

Second Quarter

	C	L	T
Elec. T. 21 (A-C Circuits I)	5	3	6
T. Eng. 21 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
T. Phys. 22 (Mechanics)	5	3	6
Total	18	6	20

Third Quarter

	C	L	T
Elec. T. 31 (A-C Circuits II)	5	3	6
Elec. T. 33 (Electron Tubes)	5	3	6
T. Math. 31 (Applied Math.)	5	0	5
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	18	9	21

Fourth Quarter

	C	L	T
Elec. T. 45 (Rotating Mach.)	5	3	6
Elec. T. 47 (Telephony)	3	3	4
Elec. T. 48 (Polyphase Cir.)	5	0	5
Elec. T. 51 (Ind. Electronics)	5	3	6
Total	18	9	21

Fifth Quarter

	C	L	T
Elec. T. 46 (Radio I)	5	6	7
Elec. T. 58 (Tran. L. & Ant.)	5	3	6
Elec. T. 59 (Spec. Problems)	0	6	2
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 12 (Human Relations)	3	0	3
Total	15	15	20

Sixth Quarter

	C	L	T
Elec. T. 67 (FM & Television)	5	3	6
Elec. T. 68 (Microwaves)	3	3	4
Elec. T. 69 (Radio Sr. Repair)	5	6	7
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 67 (Seminar)	1	0	1
Total	16	12	20

PLACEMENT POSSIBILITIES IN ELECTRONICS AND RADIO

Sales-Service Representatives for manufacturers of and dealers in radio, television, radar, X-ray, and all other types of equipment using electronic controls and devices.

Serviceman for all the types of equipment mentioned above.

Radio Distributor Representative

Radio Control Room Operator

Television Field Crewman

Electronics Advertising

Telephone Carrier and Repeater Installation and Repair

F.C.C. Examiner-Plant Inspector

Production Testing of Electronic and Non-Electronic Manufacturing

Patent Office Technician (Electronic)

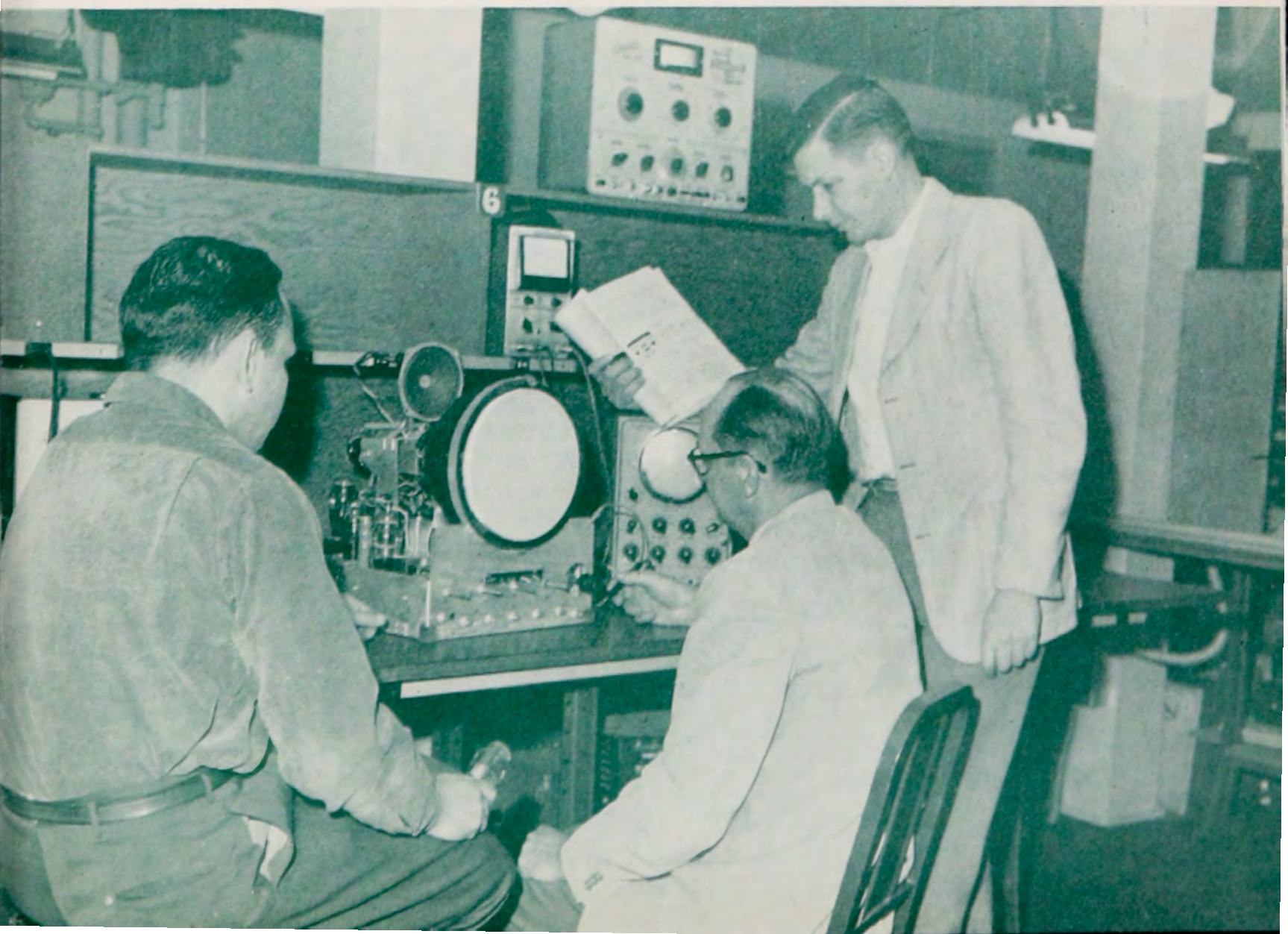
Civil Service Electronics Inspector

Civil Service Radio Maintenance, Construction

Warehouse (Electronic Equipment) Supervisor

Industrial Insurance Adjuster

E&R Students Learn to Use All Types of Testing Equipment



GAS FUEL TECHNOLOGY

The course in Gas Fuel Technology is planned to provide an adequate reservoir of trained personnel for the great and fast growing gas industry. STI, with advisory assistance from industry, has worked out a curriculum to prepare a student to go into the gas industry at a technician's level, which is so sorely needed by the industry at this time. That part of the curriculum devoted solely to gas (LP-Gas, natural gas and manufactured gas) is backed up by specialized training in mathematics, English, and physics. In addition, specialized training in supervision and personnel problems is included.

Specific work is presented on the many uses of gas as a fuel, and the required utilization equipment. The shop work has been selected to develop the student's knowledge of all types of problems encountered in the manufacturing of equipment, installation of such equipment and the servicing of it.

Successful graduates of this course are presented with many and varied job opportunities in engineering offices, producers and distributors of gas, manufacturers and distributors of appliances and equipment and in the operations of retail marketers.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Chem. 31 (Gen. Chem.)	5	0	5
T. Dr. 11 (Tech. Draw. I)	0	6	2
Ind. T. 12 (Human Relations)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Mech. T. 13 (Gas Survey)	1	0	1
Total	14	9	17

Second Quarter

	C	L	T
T. Dr. 21 (Tech. Draw. II)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
Mech. T. 21 (Theory of Gases)	3	0	3
T. Phys. 22 (Mechanics)	5	3	6
Total	16	9	19

Third Quarter

	C	L	T
Arch. T. 24 (Blueprint Read.)	3	0	3
T. Eng. 21 (Comp. & Rhet.)	3	0	3
Mech. T. 24 (Gen. Metal Shop)	0	6	2
Mech. T. 32 (Gas Utilization I)	3	3	4
Mech. T. 38 (Fuels & Burners)	3	0	3
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	15	12	19

Fourth Quarter

	C	L	T
Mech. T. 41 (Air Condition. I)	5	3	6
Mech. T. 49 (Gas Util. II)	3	3	4
Mech. T. 57 (Welding)	0	6	2
T. Phys. 12 (Electricity)	5	3	6
Total	13	15	18

Fifth Quarter

	C	L	T
T. Dr. 41 (Mach. Sketching)	0	6	2
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 32 (Ind. Sales & Pur.)	3	0	3
Ind. T. 68 (Small Bus. Mgt.)	3	0	3
Mech. T. 53 (Refrigeration I)	3	3	4
Mech. T. 56 (Gas Equip. I)	3	3	4
Total	14	12	18

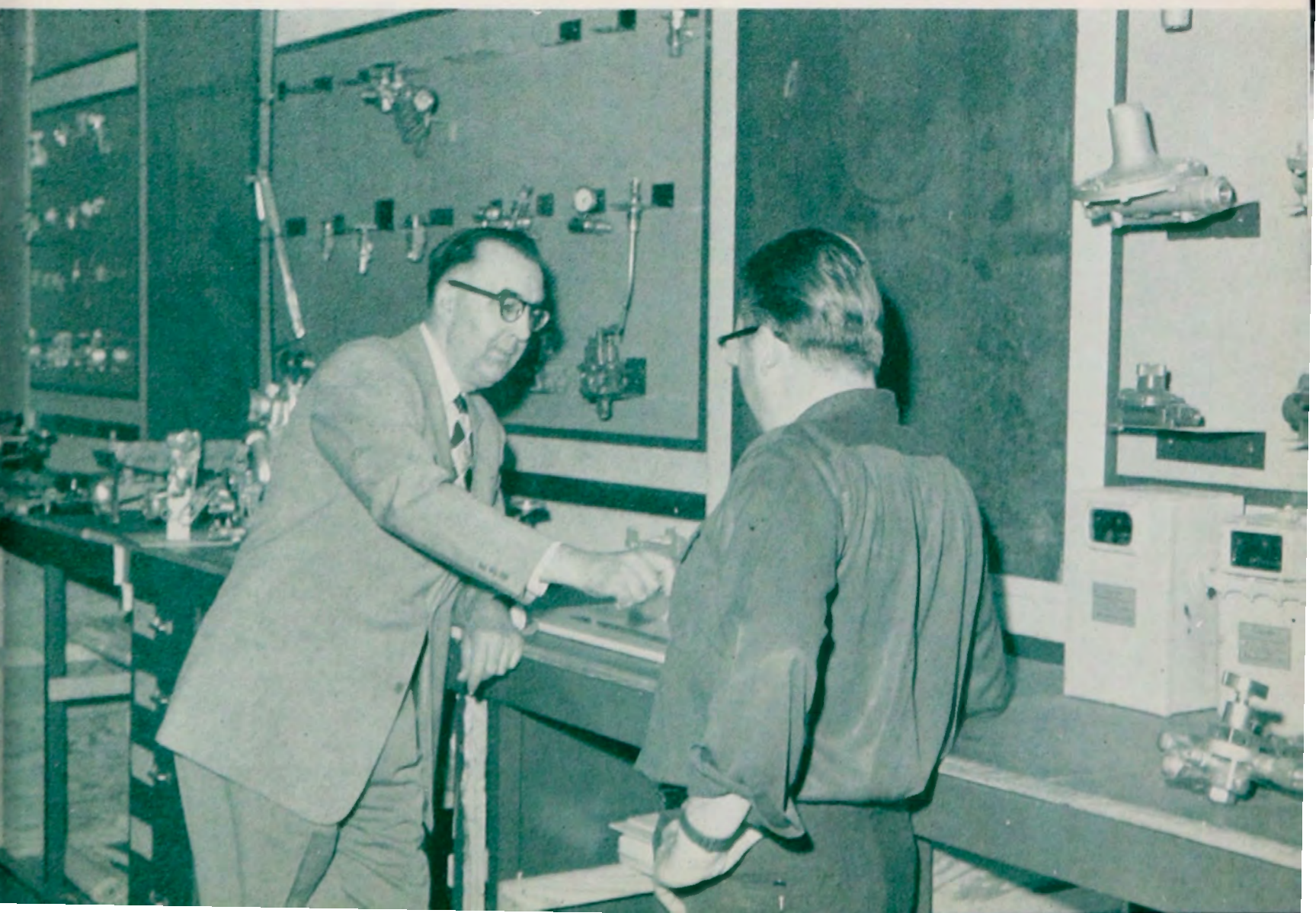
Sixth Quarter

	C	L	T
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 61 (Ind. Economics)	5	0	5
Ind. T. 62 (Supv. Training)	5	0	5
Ind. T. 67 (Seminar)	1	0	1
Mech. T. 68 (Gen. Sheet Met.)	0	6	2
Mech. T. 61 (Gas Equip. II)	3	3	4
Total	16	9	19

PLACEMENT POSSIBILITIES FOR GAS FUEL TECHNOLOGY GRADUATES

1. Servicing & Installation
    a. Domestic gas systems & appliances
    b. Commercial equipment
    c. Industrial equipment
    d. Job estimating
2. Sales
    a. All types of gas equipment
3. Distribution
    a. Bulk plant construction, operation and maintenance.
    b. Operation of distributing equipment.
4. Supervision and Management
    a. Plant foreman
    b. Service manager
    c. Training service personnel
    d. Office manager
    e. Sales manager
    f. Purchasing agent
    g. Technical advisor to dealers

Department Head Clifford and Student Discuss a Gas Fuel Problem



HEATING AND AIR CONDITIONING TECHNOLOGY

In the past few years the heating and air conditioning industry has become one of the largest in the country. Already air conditioning is a "must" for homes, offices, hotels, and theaters. New applications of air conditioning and refrigeration theory are announced daily.

The heating and air conditioning course is designed to train technicians to plan, install, operate, and maintain all types of heating, air conditioning and refrigerating equipment. Basic courses in physics, mathematics, mechanical drawing, shop, human relations, technical writing, public speaking, and supervisory training are included.

Successful graduates of the course will have excellent job opportunities leading to responsible positions in the rapidly expanding industry.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Chem. 31 (Gen. Chemistry)	5	0	5
T. Dr. 11 (Tech. Drawing I)	0	6	2
Ind. T. 12 (Human Relations)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Mech. T. 24 (Gen. Metal Shop)	0	6	2
Total	13	15	18

Second Quarter

	C	L	T
T. Dr. 21 (Tech. Drawing II)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
Mech. T. 21 (Theory of Gases)	3	0	3
T. Phys. 12 (Electricity)	5	3	6
Total	16	9	19

Third Quarter

	C	L	T
Arch. T. 24 (Blueprint Read.)	3	0	3
Elec. T. 32 (Ind. Electricity)	5	3	6
Mech. T. 32 (Gas Util. I)	3	3	4
Mech. T. 38 (Fuels & Burners)	3	0	3
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	17	9	20

Fourth Quarter

	C	L	T
Mech. T. 41 (Air Condition. I)	5	3	6
Mech. T. 49 (Gas Util. II)	3	3	4
Mech. T. 68 (Gen. Sheet Metal)	0	6	2
T. Phys. 22 (Mechanics)	5	3	6
Total	16	15	21

Fifth Quarter

	C	L	T
T. Dr. 41 (Mach. Sketching)	0	6	2
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 32 (Ind. Sales & Pur.)	3	0	3
Mech. T. 52 (Air Condition. II)	5	6	7
Mech. T. 53 (Refrigeration I)	3	3	4
Total	13	15	18

Sixth Quarter

	C	L	T
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 51 (Contracts & Specs.)	3	0	3
Ind. T. 67 (Seminar)	1	0	1
Mech. T. 62 (Air Cond. III)	5	6	7
Mech. T. 63 (Refrigeration II)	3	3	4
Mech. T. 69 (Sht. Mtl. Layout)	0	6	2
Total	14	15	19

JOB POSSIBILITIES IN THE HEATING AND AIR CONDITIONING FIELD

Technical Sales Representative (Sales Engineer)

Heating System Designer

Assistant to Consulting Engineer

Heating Contractor

Manager of Service Department Training

Air Conditioning Maintenance and Operations Engineer

Heating Engineer

Ventilating and Air Conditioning Draftsman

Refrigeration Mechanic

Service Engineer

Refrigeration Instructor

Tests Are Run on All Types of Modern Heating and Air Conditioning Units

INDUSTRIAL TECHNOLOGY

The student in Industrial Technology is being trained primarily for supervisory and management positions in the manufacturing industries. However, he is equally well qualified to enter the field of distribution as an industrial salesman. His specialized training in safety technology qualifies him for positions with casualty and fire insurance companies, and the transportation industry. With his training in materials handling, wage incentives, job evaluation, time and motion study, and labor relations, he can find his place with large department stores or distributing companies as a technician in these particular fields. In fact, his training in control of cost, quality, production, and personnel will qualify him for positions in any type of industry.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class Hours Laboratory Huors Total quarter hours

First Quarter

	C	L	T
T. Chem. 31 (Gen. Chemistry)	5	0	5
T. Dr. 11 (Tech. Draw. I)	0	6	2
Ind. T. 12 (Human Relations)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Total	13	9	16

Second Quarter

	C	L	T
T. Dr. 21 (Tech. Draw. II)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
Ind. T. 23 (Job Evaluation)	2	0	2
T. Math. 21 (Trig., Analyt.)	5	0	5
Mech. T. 24 (Gen. Metal Shop)	0	6	2
T. Phys. 22 (Mechanics)	5	3	6
Total	15	15	20

Third Quarter

	C	L	T
T. Eng. 21 (Comp. & Rhet.)	3	0	3
Ind. T. 22 (El. Ind. Safety)	3	0	3
Ind. T. 58 (Methods Imprvt.)	3	0	3
Mech. T. 11 (Tools & Methods)	3	0	3
Mech. T. 34 (Machine Shop I)	0	6	2
T. Phys. 12 (Electricity)	5	3	6
Total	17	9	20

Fourth Quarter

	C	L	T
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 43 (Time, Mot'n Stdy.)	2	3	3
Ind. T. 45 (Matls. Handling)	2	0	2
Ind. T. 47 (Wage Incentives)	2	0	2
Ind. T. 52 (Prod. Control)	3	0	3
Ind. T. 61 (Ind. Economics)	5	0	5
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	19	6	21

Fifth Quarter

	C	L	T
T. Dr. 41 (Mach. Sketching)	0	6	2
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 32 (Ind. Sales & Pur.)	3	0	3
Ind. T. 42 (Labor Relations)	2	0	2
Ind. T. 63 (Quality Control)	2	0	2
Ind. T. 68 (Small Bus. Mgt.)	3	0	3
Mech. T. 65 (Inspec. Methods)	3	0	3
Total	15	6	17

Sixth Quarter

	C	L	T
Ind. T. 41 (Plant Layout)	2	3	3
Ind. T. 51 (Contracts & Spec.)	3	0	3
Ind. T. 62 (Supv. Training)	5	0	5
Ind. T. 66 (Industry Analysis)	0	6	2
Ind. T. 67 (Seminar)	1	0	1
Ind. T. 69 (Cost Control)	2	0	2
Mech. T. 54 (Jigs & Fixtures)	2	3	3
Total	15	12	19

TYPES OF JOBS FOR WHICH THE INDUSTRIAL TECHNICIAN IS TRAINED

1. PERSONNEL function:
   - Personnel Director
   - Employment Manager
   - Recreation Directors
   - Union Negotiator
   - Safety Director
   - Public Relations Director
   - Training Director
   - Editor—Plant Publications
   - Personnel Counselors and Interviewers
2. QUALITY function:
   - Chief Inspector
   - Product and Process Development Technicians
   - Raw Material Sampler
   - Process Inspector
   - Laboratory Technician
   - Product Designers
3. METHODS and COST function:
   - Time Study Men
   - Motion Study Men
   - Methods Technicians
   - Cost Control Technicians
   - Estimators (Cost of manufacturing new products.)
   - Industrial Engineer's Assistants
4. EQUIPMENT function:
   - Works or Plant Engineer
   - Master Mechanic
   - Engineering Draftsman
5. PLANNING function:
   - Schedulers
   - Dispatchers
   - Planning Superintendents
   - Production Control Technicians
6. PRODUCTION function — Start at the supervisory level and rise to:
   - Assistant Foreman
   - Foreman
   - General Foreman
   - Superintendents
   - Plant Managers
   - General Managers

Plant Layout Is One of Many Subjects Studied in IT

MECHANICAL TECHNOLOGY

The Mechanical Technology curriculum offers training in basic courses such as mathematics, English, physics, supervisory training, and shop laboratory training. Classroom theory is correlated with laboratory work in which the student becomes familiar with basic tools and machines used in the mechanical field.

This field embraces the manufacture and production of mechanical products and the tools, machines, and processes by which they are made. In a broad sense mechanical technology is the creation and utilization of mechanical power, and as such enters into every business, industrial, and community activity. Men with technical institute type of training possess a knowledge that is basic to, and in demand by, companies in nearly every line of business throughout the world.

A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Dr. 11 (Tech. Draw. I)	0	6	2
T. Eng. 11 (Comp. & Rhet.)	3	0	3
Ind. T. 12 (Human Relations)	3	0	3
T. Math. 11 (Algebra)	5	3	6
Mech. T. 11 (Tools & Methods)	3	0	3
Mech. T. 24 (Gen. Metal Shop)	0	6	2
Total	14	15	19

Second Quarter

	C	L	T
T. Dr. 21 (Tech. Draw. II)	0	6	2
T. Eng. 21 (Comp. & Rhet.)	3	0	3
T. Math. 21 (Trig., Analyt.)	5	0	5
Mech. T. 34 (Machine Shop I)	0	6	2
T. Phys. 22 (Mechanics)	5	3	6
Total	13	15	18

Third Quarter

	C	L	T
Ind. T. 22 (El of Ind. Safety)	3	0	3
Ind. T. 58 (Methods Imprvmt.)	3	0	3
Mech. T. 36 (Applied Mech.)	3	0	3
Mech. T. 37 (Gen. Woodwork)	0	6	2
Mech. T. 44 (Machine Shop II)	0	6	2
T. Phys. 12 (Electricity)	5	3	6
Total	14	15	19

Fourth Quarter

	C	L	T
T. Eng. 52 (Public Speaking)	2	0	2
Ind. T. 43 (Time, Mot'n Stdy)	2	3	3
Mech. T. 42 (Met., Heat Tr.)	3	0	3
Mech. T. 47 (Pattern Making)	0	6	2
Mech. T. 51 (Strength of Mat.)	3	3	4
T. Phys. 32 (Ht., Sound, Light)	3	3	4
Total	13	15	18

Fifth Quarter

	C	L	T
T. Dr. 41 (Mach. Sketching)	0	6	2
Elec. T. 32 (Ind. Electricity)	5	3	6
T. Eng. 62 (Tech. Writing)	2	0	2
Ind. T. 32 (Ind. Sales & Pur.)	3	0	3
Mech. T. 57 (Welding)	0	6	2
Mech. T. 65 (Inspec. Methods)	3	3	4
Total	13	18	19

Sixth Quarter

	C	L	T
T. Dr. 61 (Machine Draw.)	0	6	2
Ind. T. 41 (Plant Layout)	2	3	3
Ind. T. 52 (Supv. Training)	5	0	5
Ind. T. 67 (Seminar)	1	0	1
Mech. T. 54 (Jigs & Fixtures)	2	3	3
Mech. T. 55 (Tool Engr. Prob.)	3	0	3
Mech. T. 68 (Gen. Sht. Metal)	0	6	2
Total	13	18	19

JOB OPPORTUNITIES FOR MECHANICAL TECHNICIANS

Ordnance Inspector

Automotive Inspector

Draftsman

Maintenance Men

Assistant Service Superintendent

Engineer's Assistant

Junior Engineer

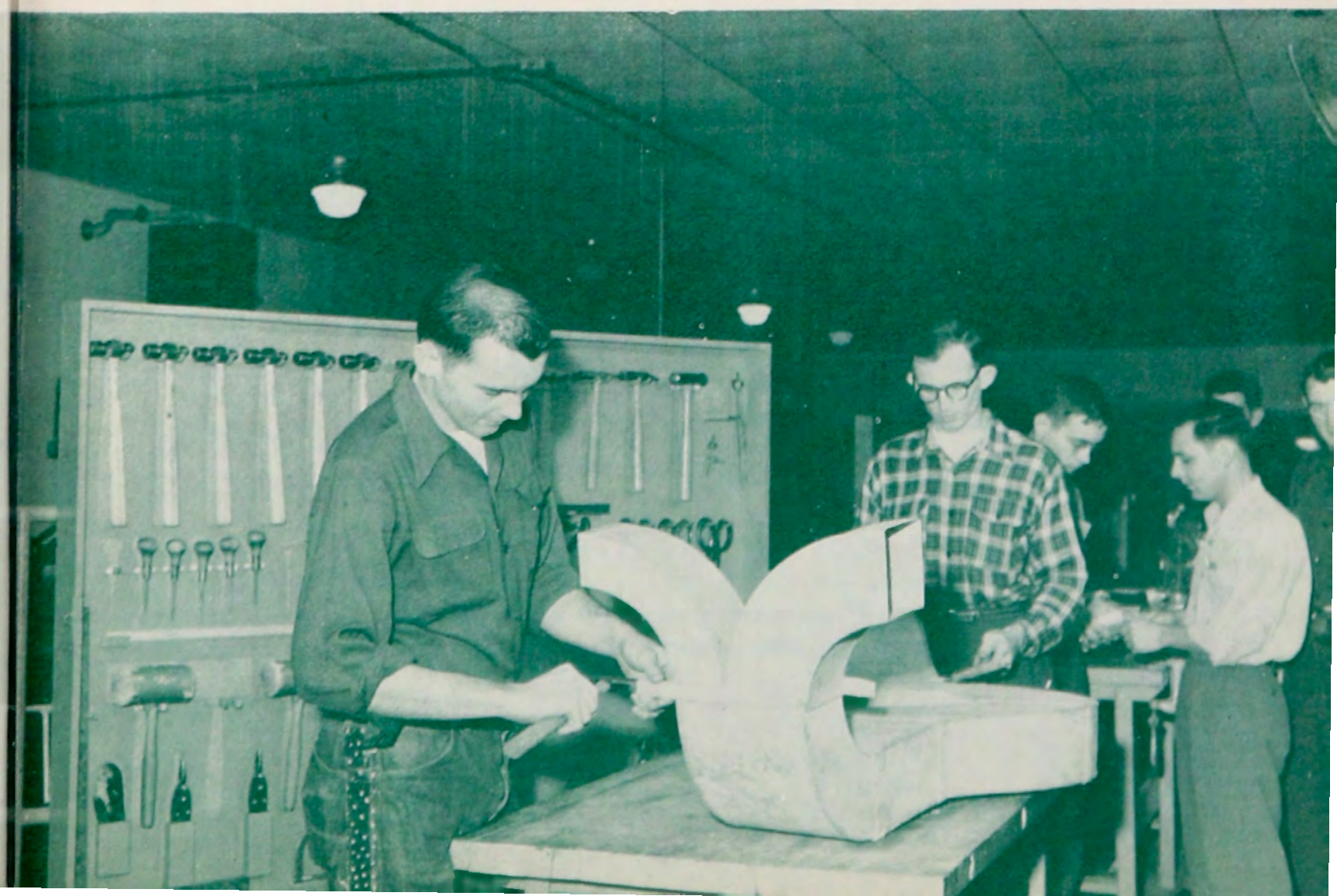
Sales Engineer

Foreman and Assistant Foreman in various fields

Warehouse Manager

Service Engineer

Mechanical Technology Carries Students into a Wide Variety of Shops and Laboratories



SUBJECT DESCRIPTIONS
BUILDING CONSTRUCTION TECHNOLOGY

Arch. T. 12—ARCHITECTURAL HISTORY 3—0—3

Prerequisite—None

A study of the progress of architecture. The material covered by this subject includes a review of architectural forms from early Egyptian to Modern Engineered Architecture.

Arch. T. 24—BLUEPRINT READING 3—0—3

Prerequisite—None

A study of architectural blueprints for all students who must translate drawings into actual existing structures. This course is also useful for students who must use them for general layout of electrical, plumbing, and air conditioning systems.

Arch. T. 31—GRAPHICS 3—9—6

Prerequisite—T. Draw. 11

An introductory study in architectural drawing and in the principles of visual design. This subject equips the student with a basic knowledge of descriptive geometry, shades and shadows, and perspective.

Arch. T. 33—BUILDING MATERIALS 3—0—3

Prerequisite—None

A subject designed to familiarize the student with the physical properties of the materials generally used in the erection of structures, with brief descriptions of their manufacture.

Arch. T. 41—BUILDING DESIGN I 2—12—7

Prerequisite—Arch. T. 31

Residential design. This subject includes working drawings and details with the actual construction of a model of a small house.

Arch. T. 51—BUILDING DESIGN II 3—9—6

Prerequisites—Arch. T. 41, Arch. T. 52 or concurrently

Architectural design, working and structural drawings of more complex structures than those studied in Arch. T. 41. Structural computations are required.

Arch. T. 52—WOOD AND STEEL CONSTRUCTION

Prerequisites—Mech. T. 51 and Civil T. 21 3—6—5

A study of the design of beams, girders, and columns in both steel and wood. Included is a study of the various timber fasteners, steel and timber trusses, and steel frameworks.

Arch. T. 54—BUILDING EQUIPMENT 3—0—3

Prerequisite—T. Phys. 32

A brief survey of the principles of heating, ventilating, plumbing, air conditioning, lighting and electrical wiring of buildings from the construction viewpoint.

Arch. T. 55—COSTS AND ESTIMATES 3—3—4

Prerequisite—Arch. T. 33

Preparation of material and labor quantity surveys from actual working drawings and specifications.

Arch. T. 61—BUILDING DESIGN III 3—9—6

Prerequisite—Arch. T. 51

A continuation of Arch. T. 51 with the necessary working and structural drawings. More complex structures than those in Arch. T. 51 are studied and a small scale model is required.

Arch. T. 62—CONCRETE CONSTRUCTION 3—6—5

Prerequisites—Mech. T. 36 and Mech. T. 51

A study of the properties of reinforced concrete with the determination of direct stresses and bending stresses in beams, slabs, girders, and columns. Laboratory work consists of problems and the actual testing of various concrete members.

CHEMISTRY, TECHNICAL

T. Chemistry 31—GENERAL CHEMISTRY 5—0—5

A survey of general chemistry with the emphasis on inorganic. Numerous classroom demonstrations are used to illustrate principles studied.

CIVIL TECHNOLOGY

Civil T. 21—GRAPHIC STATICS 0—3—1

Prerequisite—To be taken concurrently with T. Phy. 22

Graphical methods of calculating reactions, stresses, shears, moments and their application in various structural problems.

Civil T. 32—ELEMENTARY SURVEYING 3—9—6

Prerequisite—To be taken concurrently with T. Math. 21

Construction, care, and use of surveying instruments; theory and practice of chaining; differential and profile leveling; traversing; computation of areas and earthwork; theory and practice of stadia and its application to topographic surveying; U. S. Government System of public land surveys; lines and grades; city surveys; reduction and plotting of field notes; the interpretation and plotting of field notes of topographic surveys.

Civil T. 41—ROUTE SURVEYING 3—6—5

Prerequisite—Civil T. 32

Reconnaissance, preliminary location, and construction surveys for routes of all kinds, including simple, compound, and reverse curves, spiral and easement curves used on highways and railroads; superelvation of curves; computation of earthwork; construction of quantity, haul and mass diagrams. For a final project each student must lay out a complete highway location and submit the plans and profiles for this location.

Civil T. 42—HIGHWAYS 3—0—3

Prerequisite—Civil T. 41

The historic, economic, and structural phases of highway construction; study of traffic census; traffic classification as related to the type

of highway; methods of construction and design of highway and road types, including grades, curves, sight distance and other safety features.

Civil T. 44—WATER AND SEWAGE PLANT OPERATION 3—0—3

Prerequisite—Civil T. 45 or concurrently

Basic principles of water supply and sewerage, with special reference to operating techniques involved. This course acquaints the student with the ordinary operating practices of water supply and sewage treatment plants.

Civil T. 45—HYDRAULICS 5—0—5

Prerequisites—T. Phy. 22 and Mech. T. 36

Elementary principles of fluid mechanics with special emphasis on flow through pipes, channels and over weirs; a study of the various types of pumps to cause flow through pipes.

Civil T. 51—TOPOGRAPHIC AND CONTOUR SURVEYING 2—6—4

Prerequisite—Civil T. 32

Theory, description and use of advanced surveying instruments and methods; practice of state and local coordinate systems for cadastral surveys and construction work; field work for the design and construction of engineering projects; use of the Plane Table on topographic surveys; description of aerial surveying and mapping; theory, description and purposes of the many types of maps, plans and profiles used by engineers.

Civil T. 62—LAND SURVEYS 3—6—5

Prerequisite—Civil T. 32

Theory and practice of land surveying; subdivision; filing and recording deeds; U. S. system of land subdivision; U. S. Coast and Geodetic plane coordinate systems; county and state laws; city surveying procedures; use of instruments and computations on astronomical observations for geographic coordinates; Georgia Land Lot System of land subdivision.

Civil T. 63—STRUCTURAL DRAFTING 0—6—2

Prerequisite—T. Draw. 11

Detailing steel, timber, and concrete drawings.

Civil T. 64—CONSTRUCTION METHODS 3—3—4

Prerequisite—Arch. T. 33

Heavy construction practices. This subject acquaints the student with the many common pieces of heavy construction equipment and apparatus; operation, use, limitations, and maintenance of this equipment are covered, along with the methods, organization, and management for both large and small jobs. Field trips are made to construction projects to illustrate the usage of the various pieces of equipment.

DRAWING, TECHNICAL

T. Dr. 11—TECHNICAL DRAWING I 0—6—2

Introduction to drawing, use of instruments, lettering, geometric

construction, orthographic projection, auxiliary views, dimensioning, and drawing conventions.

T. Dr. 21—TECHNICAL DRAWING II 0—6—2

Prerequisite—T. Dr. 11

Continuation of topics introduced in Technical Drawing 11, plus threads and fasteners, sectioning, conventional representation, working drawings, and ink tracings.

T. Dr. 41—MACHINE SKETCHING 0—6—2

Prerequisite—T. Dr. 21

A step by step procedure in freehand sketching of machine parts with pencil. Sketches are made in orthographic, isometric, and oblique projection, as well as in true perspective. Dimensioning and shading of sketches are included.

T. Dr. 61—MACHINE DRAWING 0—6—2

Prerequisite—T. Dr. 21

Study of gears, cams, and complete assembly drawings of a small machine, together with manufacturing specifications.

T. Dr. 62—ELECTRICAL DRAWING 0—6—2

Prerequisite—T. Dr. 11

A study of A.S.A. and A.I.E.E. standard electrical drawing symbols and preparation of electrical drawings including schematics, single-line diagrams, wiring diagrams, layouts, and others.

ELECTRICAL TECHNOLOGY
ELECTRONIC AND RADIO TECHNOLOGY

Elec. T. 21—A-C CIRCUITS I 5—3—6

Prerequisite—T. Math. 11, T. Phys. 12

Fundamentals of alternating-current theory and practice as applied to single-phase circuits. Course material includes properties of resistance, conductance and capacitance; analysis of series and parallel circuits; resonant and anti-resonant systems; metering and instrumentation; complex notation, and the use of the slide rule.

Elec. T. 31—A-C CIRCUITS II 5—3—6

Prerequisite—Elec. T. 21, T. Math. 21

Continuation of single-phase alternating-current theory and practice. Course material includes a further analysis of series and parallel circuits using complex notation; constant-current and constant-voltage systems; coupled-circuit theory; decibel method of power level determination; impedance transformation; construction, classification, regulation, loss determination, and efficiency of single-phase transformers; per unit method of calculation.

Elec. T. 32—INDUSTRIAL ELECTRICITY 5—3—6

Prerequisite—T. Phys. 12, T. Math. 21

Electrical fundamentals, circuit analysis, electrical machinery, control circuits, and industrial applications of electrical equipment. This is a survey course for non-electrical students.

Elec. T. 33—ELECTRON TUBES 5—3—6

Prerequisite—Elec. T. 21, T. Math. 21

Basic study of the control of free electrons in elementary electronic circuits. Course material includes classification and characteristics of high-vacuum tubes; tube characteristic curves; load lines and amplification factors; instrumentation and test equipment; single-phase rectifier circuits; basic amplifier circuits; classification and characteristics of gas-filled and vapor-filled tubes, and thyratron control circuits.

Elec. T. 42—A-C MACHINES I 5—3—6

Prerequisite—Elec. T. 45, Elec. T. 48

Construction, characteristics, operation and control, and industrial applications of polyphase induction motors and single-phase motors.

Elec. T. 43—ILLUMINATION 2—3—3

Prerequisite—Elec. T. 31

Illumination principles and practices. Modern illumination principles, calculations, and equipment are coordinated in design problems of complete fluorescent and incandescent lighting installation.

Elec. T. 45—ROTATING MACHINES 5—3—6

Prerequisite—Elec. T. 31

Construction, characteristics, operation and control, and industrial applications of direct-current motors and generators. The latter portion of the course consists of a survey of the principles and operating characteristics of three-phase induction motors, single-phase motors, synchronous generators, and synchronous motors.

Elec. T. 46—RADIO I 5—6—7

Prerequisite—Elec. T. 47, Elec T. 51

Resonant systems, radio-frequency and audio-amplifiers, amplifier coupling, regenerative and degenerative circuits, basis oscillator circuits, tuning circuits, detector circuits, power supplies, decoupling networks, tuned-radio-frequency receiver circuits, superheterodyne receiver circuits, and construction of a superheterodyne receiver.

Elec. T. 47—TELEPHONY 3—3—4

Prerequisite—Elec. T. 31, Elec. T. 33

Study of the operating principles of telephone equipment and circuits, basic local battery and common battery manual exchanges, and automatic exchanges. Matched transmission lines with distributed and lumped constants, attenuators, constant-k filters, and m-derived filters are considered in detail.

Elec. T. 48—POLYPHASE CIRCUITS 5—0—5

Prerequisite—Elec. T. 31, Elec. T. 33, T. Math. 31

Polyphase distribution systems, transformer connections, circuit analysis, and rectifier circuits.

Elec. T. 51—INDUSTRIAL ELECTRONICS 5—3—6

Prerequisite—Elec. T. 31, Elec. T. 33

Study of basic industrial electronic circuits and application of these

circuits to such devices as electronic timers, voltage regulators, electrostatic air cleaners, generator and motor control systems, and induction and dielectric heating equipment.

Elec. T. 52—A-C MACHINES II 5—3—6

Prerequisite—Elec. T. 42

Construction, characteristics, operation and control, and industrial applications of synchronous generators, synchronous motors, and synchronous converters.

Elec. T. 53—WIRING METHODS 5—0—5

Prerequisite—Elec. T. 45, Elec. T. 48

Types of wiring and wiring methods used in buildings. The course material includes wire sizes, types of insulation, electrical fittings, service entrances, distribution centers, branch circuit layout, switching arrangements, motor control circuits, and a thorough examination of the recommendations of the National Electrical Code and the National Electrical Manufacturers Association with illustrative applications of wiring procedures.

Elec. T. 57—FCC RULES AND REGULATIONS 3—0—3

Prerequisite—Elec. T. 46

Study of the rules and regulations of the Federal Communications Commission. The examination requirements for radio-telegraph and radio-telephone licenses are covered in detail.

Elec. T. 58—TRANSMISSION LINES AND ANTENNAS 5—3—6

Prerequisite—Elec. T. 46

High-frequency transmission line concepts and practical applications. Emphasis is placed on impedance-matching concepts and methods, and on the use of the transmission-line circle diagram for the solution of practical problems. Laboratory practice provides experience in the use of standard radio-frequency measuring equipment. The latter part of the course deals with propagation, basic antenna theory, antennas for low-frequency and high-frequency work, and measuring techniques.

Elec. T. 59—SPECIAL PROBLEMS IN ELECTRONICS 0—6—2

Prerequisite—Elec. T. 46 concurrently

Special projects dealing with the study, modification, or improvement of existing equipment. Each student gives two oral progress reports and a written final project report.

Elec. T. 60—SPECIAL PROBLEMS IN ELECTRONICS II 0—3—1

Prerequisite—Elec. T. 46, Elec. T. 59

Either basic or advanced projects, depending upon the capabilities and needs of the student. Project may deal with study of equipment beyond the scope of the regular class and laboratory assignments.

Elec. T. 61—ELECTRIC POWER DISTRIBUTION 4—0—4

Prerequisite—Elec. T. 42

Construction, operation, and maintenance of power distribution lines, substations, electric utility organization, and the types of customer loads supplied by electric utilities.

Elec. T. 64—SEMINAR 1—0—1

Prerequisite—Completion of four quarters work

Scheduled meetings at which individual students present oral and written reports on important electrical developments. Each report is followed by group discussion and criticism.

Elec. T. 65—SPECIAL PROJECTS FOR ELECTRICAL TECHNOLOGY 0—3—1

Prerequisite—Completion of five quarters work

Special projects dealing with study, modification, design, testing, and/or construction of laboratory equipment beyond the scope of the regular laboratory assignments. Projects are assigned to individual students. A complete written report is submitted on each project.

Elec. T. 67—FM AND TELEVISION 5—3—6

Prerequisite—Elec. T. 46

Principles of frequency modulation, methods of modulation and detection, FM transmitter and receiver circuits; FCC standards of television transmission, camera and picture tubes, composite video signal, television receiver circuits, power supplies, video amplifiers, deflection generators, alignment procedures, servicing, transmitter circuits.

Elec. T. 68—MICROWAVES 3—3—4

Prerequisite—Elec. T. 46, Elec. T. 58

Trigger circuits, multivibrators, cavity resonators, wave guides, magnetrons, Klystrons, modes of oscillation, ultra-high-frequency amplifiers, transit-time effects, selsyns, amplidynes, servomechanisms, gyroscopes, principles of radar, radar transmitting and receiving systems, synchronization, and specific study of ASC-1 and APS-3 radar systems.

Elec. T. 69—RADIO SERVICE AND REPAIR 5—6—7

Prerequisite—Elec. T. 46

Power amplifiers, tuned-radio-frequency amplifiers, phase inverters, push-pull amplifiers, completion of superheterodyne receiver construction from Elec. T. 46, alignment procedure, qualitative review of operation of each stage, AC, AC-DC, and battery operated receivers, and trouble-shooting procedures.

ENGLISH, TECHNICAL

T. Eng. 11—COMPOSITION AND RHETORIC 3—0—3

Grammar study and drill, punctuation, correct usage, sentence structure, elimination of errors in sentence structure, and writing for comprehension.

T. Eng. 21—COMPOSITION AND RHETORIC 3—0—3

Prerequisite—T. Eng. 11

Vocabulary building, dictionary study, practice in developing sentence style, precise writing, paragraph technique, and business correspondence.

T. Eng. 31—SURVEY OF HUMANITIES 2—0—2

Prerequisite—T. Eng. 21

An elective subject designed to provide for those students who are interested a brief survey of our literary heritage, to encourage them to read thoughtfully, to help them increase their ability to think and learn.

T. Eng. 52—PUBLIC SPEAKING 2—0—2

Prerequisite—T. Eng. 21

Study and practice in the fundamentals of public speaking. The subject includes training in selecting a subject, obtaining and organizing material, and presenting speeches effectively. Each student makes several speeches before an audience.

T. Eng. 62—TECHNICAL WRITING 2—0—2

Prerequisite—T. Eng. 21

Study of the fundamentals of technical writing style and mechanics with practice in preparing reports of the various types most likely to be used on the job by technicians.

INDUSTRIAL TECHNOLOGY

Ind. T. 12—HUMAN RELATIONS 3—0—3

Training in development of personality, ability to analyze problems involving human relations, and the development of good foundations for personnel relations. Actual cases of human relations problems in industry are studied with a view toward developing the technique of working with superiors, associates, and subordinates.

Ind. T. 22—ELEMENTS OF INDUSTRIAL SAFETY 3—0—3

A basic study of industrial accident prevention considering the nature and extent of the accident problem. A practical study is given the technique for control of industrial hazards together with the fundamentals of good organization.

Ind. T. 23—JOB EVALUATION 2—0—2

A study of the techniques and principles of job analysis and evaluation as a means for developing sound wage and salary administration.

Ind. T. 31—SAFETY STANDARDS 3—0—3

Prerequsite—Ind. T. 22

A survey of recognized safety standards and codes to permit their ready, intelligent use in the industrial plant; use of machine safeguards in minimizing accident possibilities in connection with the use of industrial machinery; principles of fire prevention and control, including the use of first-aid fire equipment.

Ind. T. 32—INDUSTRIAL SALES AND PURCHASING 3—0—3

Methods and principles of industrial sales and service engineering as encountered in the basic industries; the nature of the purchasing function, including the art of the interview and conference, sources of purchasing information, forecasting ultimate values, and reciprocity purchasing.

Ind. T. 41—PLANT LAYOUT 2—3—3

Prerequisite—Mech. T. 11, Mech. T. 34, Ind. T. 45, Ind. T. 58

Principles of plant layout, process and flow charts, tools and aids for effective plant layouts, case studies; the supervisor's responsibility for building and equipment maintenance.

Ind. T. 42—LABOR RELATIONS 2—0—2

Prerequisite—Ind. T. 12

Personnel policies, selection and employment, interviewing and testing, employee records, training, employee benefits, collective bargaining and employer-employee relations, grievance procedure, wage and salary standards, and use of practical industrial psychology.

Ind. T. 43—TIME & MOTION STUDY 2—3—3

Prerequisite—Ind. T. 58

Principles of motion economy, tools for motion study, time study methods and practice; standard data and formula construction; use of methods-time measurements as a substitute for time studies.

Ind. T. 45—MATERIALS HANDLING 2—0—2

Selection and use of modern equipment and methods for handling material in the industrial processes.

Ind. T. 47—WAGE INCENTIVES 2—0—2

Prerequisite—Ind. T. 58

Basic requirements of a sound wage incentive plan, control of quality in incentive installations, union participation. Subject matter includes a study of five types of wage incentive plans.

Ind. T. 51—CONTRACTS AND SPECIFICATIONS 3—0—3

The general laws of contracts, agency, sales agreements, and engineering specifications as incorporated into contracts; the business, legal, and ethical phases of engineering.

Ind. T. 52—PRODUCTION CONTROL 3—0—3

Prerequisite—Ind. T. 58

The preparation for production, planning based on sales forecasts, operation sheets, routing, scheduling, dispatching, follow-up, inventory control, receiving, stores and shipping, control forms and reports.

Ind. T. 53—SAFETY SUPERVISION 3—0—3

Prerequisite—Ind. T. 22

Methods for the training of the various persons within the industrial

organization in their respective safety duties, the recognition and evaluation of industrial health hazards, and techniques for their control.

Ind. T. 58—METHODS IMPROVEMENT 3—0—3

Study of the various production methods, batch and mass production techniques; practice in writing standard procedures, raw material specifications, and manufacturing instructions. The application of the "questioning attitude" in the search for better manufacturing methods and job procedures and the 4-step method of job improvement are also studied.

Ind. T. 61—INDUSTRIAL ECONOMICS 5—0—5

Output and life of equipment, operation costs, depreciation rates, economic selection of equipment, determination of economic lot sizes, and cost studies on representative problems.

Ind. T. 62—SUPERVISORY TRAINING 5—0—5

Line of responsibility and authority, technique of job instruction, personal leadership, technique of conducting a conference, how to produce for a profit. The subject treats problems of the supervisor as cost man, as safety man, as production man, as quality man, as personnel man, as the manager of his department.

Ind. T. 63—QUALITY CONTROL 2—0—2

Principles of inspection and quality control, specifications and limits, equipment, methods, records and control charts.

Ind. T. 66—INDUSTRY ANALYSIS 0—6—2

A survey and study of the various fields of industrial activity such as textile, steel, chemical, wood products, food processing, and mechanical assembly. Field trips and detailed reports will be included in order to enable the student to make a better choice of the particular type of industry he desires to enter.

Ind. T. 67—SEMINAR 1—0—1

A study of the techniques for obtaining employment, improving one's position after he gets the job, and a general discussion of professional ethics.

Ind. T. 68—SMALL BUSINESS MANAGEMENT 3—0—3

Training in the operation of a small business concern including a practical knowledge of accepted accounting procedures, order billing, credits and collections, costs, payroll procedures, taxes, and information about standard business and office machines.

Ind. T. 69—COST CONTROL 2—0—2

Prerequisite—Ind. T. 68

Control of material and labor costs, determination of labor requirements, cost studies for use in estimating product prices.

MATHEMATICS, TECHNICAL

T. Math. 11—TECHNICAL ALGEBRA 5—3—6

Fundamental operations in algebra, factoring, fractions, exponents,

radicals, complex numbers, equations, formulas, primes and subscripts, simultaneous equations, Kirchoff's laws, determinants, quadratic equations, ratio and proportion, variation, graphical solution of simultaneous equations, logarithms, and computations on the slide rule. Remedial practice work in each topic stressed. The laboratory period is devoted largely to slide rule computations and logarithms.

T. Math. 21—APPLIED TRIGONOMETRY AND ANALYTIC GEOMETRY 5—0—5

Prerequisite—T. Math. 11

Trigonometric functions, plane right triangles, reduction formulas, fundamental relations, addition formulas, double angles, half angles, inverse functions, and solution of oblique triangles. Approximately two-thirds of the quarter is devoted to topics in trigonometry. During the remainder of the quarter topics in analytics are considered. Rectangular coordinate systems, locus and equations, the straight line, the circle, the parabola, and the hyperbola are the topics covered.

T. Math. 31—APPLIED MATHEMATICS 5—0—5

Prerequisite—T. Math. 21

An application of mathematics to problems ordinarily not solvable by algebra or trigonometry. The subject, therefore, consists mainly of an introduction to the more elementary principles and concepts of calculus. The application of the calculus is directed toward problems pertinent to the student's major field of study.

T. Math. 32—BUSINESS MATHEMATICS 3—0—3

Short methods of computation, interest and discount, annuities, amortization, depreciation, valuation and yield of bonds.

MECHANICAL TECHNOLOGY

Mech. T. 11—TOOLS AND METHODS 3—0—3

An introduction to the field of metal work and industrial manufacturing for mechanical students. Possibilities and limitations of various machine tools are developed so that the student will have a basic perspective of modern efficient industrial procedure. The characteristics of different materials are covered as well as their adaptability to the various processes. Each process is covered from a technical viewpoint. Correct terms are introduced so that the student will be able to use the language of the engineer or the technician.

Mech. T. 13—GAS SURVEY 1—0—1

A course designed to introduce the student to the Gas Industry and the facilities available in the Gas Fuel Technology Course.

Mech. T. 21—THEORY OF GASES 3—0—3

This course presents the foundation for later study of the utilization of gas and the equipment used in its handling. It covers the gas laws, specific gravity, effect of pressure and temperature, meter correction factors, heating values of various gases and the chemistry of combustion. In connection with LP-Gases, physical characteristics, vapor pressures, vaporization, dew point and bubble point, filling densities and gas-air mixtures are covered.

Mech. T. 24—GENERAL METAL SHOP 0—6—2

An introduction to metal work, giving the students both actual practice and related information in lathe work, shaper work, bench metal, acetylene welding and cutting, and forging. The proper use and care of hand tools are stressed along with maintenance of shop equipment. Lectures are given on the most frequently used hand tools, measuring devices, and specifications of ordering materials and supplies.

Mech. T. 32—GAS UTILIZATION I 3—3—4

Prerequisite—Mech. T. 21

A study of the fundamental principles of gas utilization including gas burner operation and design, orifice capacities, burner capacities, requirements for proper combustion, safety pilots, thermostats and other controls used on gas appliances. Laboratory work is devoted to the operation and adjustment of burners and controls.

Mech. T. 34—MACHINE SHOP I 0—6—2

Prerequisite—T. Dr. 11

Fundamentals machine operations of drilling, reaming, turning between centers, chuck work, thread cutting, shaper work, layout, and finishing. Special attention will be given to cutting speeds, tool and drill grinding, and machine upkeep.

Mech. T. 36—APPLIED MECHANICS 3—0—3

Prerequisites—T. Phys. 22 and T. Math. 21

Statics and dynamics, including equilibrium of forces, center of gravity, couples, friction, rectilinear and curvilinear motion, rotation, Newton's Laws of Motion, moment of inertia work, power, and energy.

Mech. T. 37—GENERAL WOODWORK 0—6—2

Prerequisite—T. Dr. 11

An introduction to woodwork designed to give students a background of basic woodworking processes. Topics include use of hand tools, sharpening and the upkeep of tools, basic woodworking principles of design and construction.

Mech. T. 38—FUELS AND BURNERS 3—0—3

Study of the fuels used in domestic and commercial heating, the types of equipment used to burn these fuels, and automatic controls as applied to heating.

Mech. T. 41—AIR CONDITIONING II 5—3—6

Prerequisite—T. Phys. 32 or concurrently

A study of the basic principles of heating and air conditioning. The subject matter includes calculation of heating and cooling loads, properties of air and vapor mixtures, heating and humidification, cooling and dehumidification, fans and ducts, heating and cooling

systems, and automatic controls. Laboratory work is carried out on controls and heating equipment.

Mech. T. 42—METALLURGY AND HEAT TREATING 3—0—3

Prerequisite—Mech. T. 11 and Mech. T 24

Fundamentals of metallurgy, grain size, effect of carbon content, and hardness testing devices. Different alloys will be tested to determine the effect of heat treating.

Mech. T. 43—HEAT POWER 3—0—3

Prerequisite—T. Physics 32

This course is intended to give the student a broad conception of applied energy. It includes a study of fuels, combustion, heat transfer, vapors, steam and internal combustion engines, boilers, fans, compressors, heating, power plants and efficiencies.

Mech. T. 44—MACHINE SHOP II 0—6—2

Prerequisite—Mech. T. 34

A continuation of Machine Shop I with the following additions: Use of gages, taper turning, gear cutting, square thread cutting, and types of fits. The topics studied are applied practically in the shop as the required projects are made.

Mech. T. 47—PATTERN MAKING 0—6—2

Prerequisite—Mech. T. 37

A basic study of pattern making. Different type patterns are made and the various allowances, finish, and color code are coordinated and presented in both lecture form and on the projects.

Mech. T. 49—GAS UTILIZATION II 3—3—4

Prerequisite—Mech. T. 32

The application of utilization principles to gas ranges, water heaters, refrigerators, space heating equipment and other appliances. Installation and servicing of appliances, sizing and operating cost of water heaters and space heaters are thoroughly covered. In the laboratory students are given experience in installing and adjusting many types of domestic and commercial appliances.

Mech. T. 51—STRENGTH OF MATERIALS 3—3—4

Prerequisite—Mech. 36

A study of the effects of externally applied forces. Topics include properties of materials, stresses and strains in axially loaded members, riveted and welded joints, thin-walled cylinders, torsion of circular shafts, bending and shear tresses and deflection in statically determinate beams, column theory, and combined stresses.

Mech. T. 52—AIR CONDITIONING II 5—6—7

Prerequisite—Mech. T. 41

A continuation of the work given in Mech. T. 41 with laboratory work in design of domestic or commercial heating systems. This subject includes selection of equipment and its placement on blueprints.

Mech. T. 53—REFRIGERATION I 3—3—4

Prerequisite—T. Phys. 32 or concurrently

The fundamentals and application of refrigeration. This subject is a study of the refrigeration cycle, refrigerants, compressors, evaporators, condensers, control equipment, and domestic and commercial systems. Laboratory work parallels the class theory.

Mech. T. 54—JIGS AND FIXTURES 2—3—3

Prerequisites—Mech. T. 24 and 34

Factors involved in large quantity production machine processes. Types of jigs and fixtures, different methods of gaging work, ease of operation, and methods of assembly are studied. Machine parts are selected and preliminary methods of production together with cost estimates and production costs are calculated for each part chosen.

Mech. T. 55—TOOL ENGINEERING PROBLEMS 3—0—3

Prerequisites—Mech. T. 51

A study of the applications of principles of strength and rigidity that are necessary in machine tool elements. The theory of strength of materials is put into practice in designing the assigned problems.

Mech. T. 56—GAS EQUIPMENT I 3—3—4

Prerequisite—Mech. T. 21

This course is a study of the equipment used in the handling of gas from the main or storage container to the appliance. It includes containers, regulators, container accessories, vaporization capacities of containers, sizing of relief valves, gas piping, high and low pressure pipe sizing, and gas meters. Actual experience in making gas installations, pipe and tube working, regulator repair and testing, and a study of containers and accessories are provided in the laboratory program.

Mech. T. 57—WELDING 0—6—2

Prerequisite—Mech. T. 24

Fundamentals of both arc and acetylene welding. A study is made of the most economical methods in regard to welding time, machinability, and ductility. Methods of manufacturing rods, types of rods, color code of rods, safe practices in welding, and welding symbols are covered in lectures.

Mech. T. 61—GAS EQUIPMENT II 3—3—4

Prerequisite—Mech. T. 56

A study of the equipment used in the handling of LP-Gas in bulk: pumps, compressors, liquid meters, tank cars, tank trucks, and bulk plants. Laboratory work is devoted to a study of this type of gas equipment and includes visits to bulk plants and LP-Gas standby plants.

Mech. T. 62—AIR CONDITIONING III 5—6—7

Prerequisite—Mech. T. 52

A continuation of Mech. T. 52. The laboratory work covers the calculation of cooling loads, selection and arrangement of equipment, and drawings of the system.

Mech. T. 63—REFRIGERATION II 3—3—4

Prerequisite—Mech. T. 53

A continuation of Mech. T. 53 with emphasis placed on commercial and industrial systems. In addition there is a study of load calculations, the thermodynamic analysis of the refrigeration cycle, and auxiliary equipment.

Mech. T. 65—INSPECTION METHODS 3—3—4

Prerequisites—Mech. T. 24 and 34

A study of the use and care of precision instruments, and methods of inspection. Types and methods of inspection are compared and discussed from samples chosen from industry as a comparison. Field trips will be taken to observe different methods used in industry.

Mech. T. 68—GENERAL SHEET METAL 0—6—2

Prerequisite—T. Dr. 11

Shop problems including layouts and methods of fabrication of sheet metal.

Mech. T. 69—SHEET METAL LAYOUT 0—6—2

Prerequisite—Mech. T. 68

A continuation of Mech. T. 68 for the Heating and Ventilating students, dealing with layout and fabrication of the different heating and ventilating problems such as parallel line development, radical line development, and triangulation.

PHYSICS, TECHNICAL

T. Physics 12—ELECTRICITY 5—3—6

An introduction to electricity and a study of its simpler applications. The subject matter includes magnetism, electrostatics, potential differences, work and power in electrical circuits, Joule's Laws, resistances in series and parallel, Ohm's Law, electro-chemical effects, motors, generators, induced electromotive forces, Lenz's Law, electromagnetic effects, electrical measuring, high frequency oscillations. The laboratory work parallels the work in the classroom.

T. Physics 22—MECHANICS 5—3—6

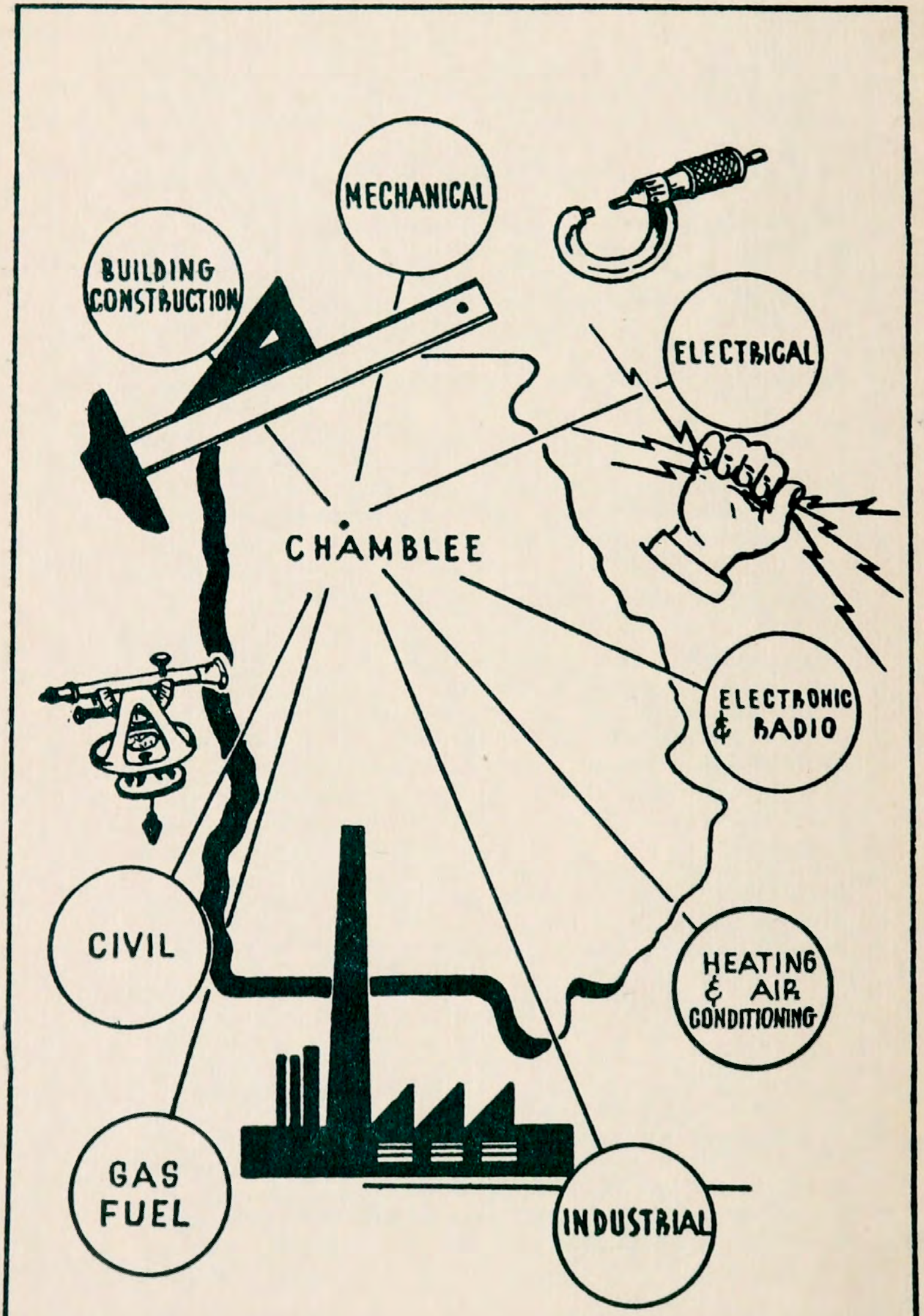
Prerequisite—T. Math. 21 or concurrently

An introduction to Newtonian mechanics. Subject matter includes measurement, coplanar concurrent forces, coplanar parallel forces, forces in space, work and energy, simple machines, accelerated motion, friction, vibratory motion, rotary motion, gravitation, fluids in motion, elasticity and strength of materials. Laboratory exercises parallel the work in the classroom.

T. Physics 32—HEAT, SOUND, LIGHT 3—3—4

Prerequisite—T. Physics 22

The elementary principles of heat, sound, and light and their technical applications. Class work includes discussions of temperature and its measurement, thermal expansion, heat units, work and heat, transfer of heat, change of state, meteorology, heat engines, wave motion, sound, propogation of light, photometry, reflection, refraction, spectra, color, and optical instruments. Laboratory exercises parallel the work in the classroom.


MECHANICAL
BUILDING CONSTRUCTION
ELECTRICAL
CHAMBLEE
ELECTRONIC & RADIO
CIVIL
HEATING & AIR CONDITIONING
GAS FUEL
INDUSTRIAL