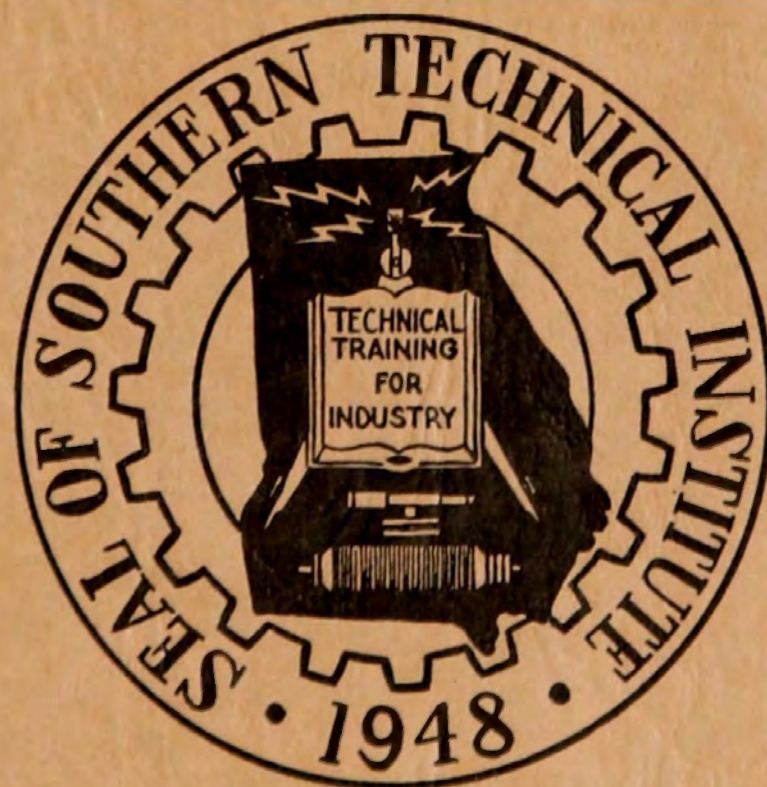


CATALOGUE AND BULLETIN

SOUTHERN TECHNICAL INSTITUTE



A UNIT OF
ENGINEERING EXTENSION DIVISION
GEORGIA INSTITUTE OF TECHNOLOGY
★ ★ ★
CHAMBLEE, GEORGIA

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INFORMATION 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 outside Back Cover.

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 a technical specialist who translates designs into action by coordinating men, materials, and machines. See pp. 10-12.

What courses of study are offered?

Eleven two-year, technological courses—Building Construction, Civil, Electrical, Electronics, Telephone, Gas Fuel, Heating and Air Conditioning, Industrial, Industrial Management, Mechanical, and Textile. See pp. 33-54.

Is a degree conferred?

Yes. You will be awarded the Associate in Science degree in the technological field of your specialty.

What are the entrance requirements?

High-school graduation, 2 years of algebra, 3 of English, one of geometry, and CEEB Scholastic Aptitude Test scores; or passing scores on the G.E.D. tests, two years of algebra, one year of plane geometry, and SAT scores qualify one for entrance. Every applicant must supply the STI Registrar with an application for admission, a certificate of recommendation, a high-school transcript, and SAT scores; and if not a graduate, he must also obtain an official copy of G.E.D. test scores. See pages 24-25.

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 18.

What boarding and living accommodations are provided?

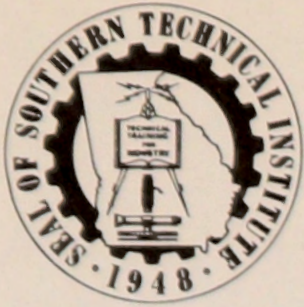
A modern, attractive dining hall, cafeteria plan. Comfortable, well-equipped dormitory rooms are available for 380 men. Married students may obtain inexpensive, furnished or unfurnished apartments in the nearby Tech-Lawson Apartments. See pages 17, 32.

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. 27-33.

Does Southern Tech help to place its graduates?

Yes! An efficient, successful placement office will help you in every way to get a desirable position at a good starting salary. See page 23.



Application for Admission to
SOUTHERN TECHNICAL INSTITUTE
 CHAMBLEE, GEORGIA

Date _____ 19 _____

I enclose \$25.00 as a matriculation fee to the Southern Technical Institute. I understand that if I am accepted this amount will be deducted from my fees when I enter; or, if I am rejected, that it will be returned. I also understand that if I am accepted but do not enter this fee will not be refunded unless I make a written request for it thirty days before registration date of the quarter that I was to enroll.

Name in Full _____
 (Please Print) Last Name First Name Middle Name

Home Address _____
 No. Street City State Telephone

Date of Birth _____ Age _____ Sex _____
 Month Day Year

Next of Kin _____
 Last Name First Name Middle Name Relationship

Address, Next of Kin _____
 No. Street City State Telephone

Veteran using G. I. Bill? Yes _____ No _____ P. L. 894? _____ P. L. 550? _____

Dormitory room desired? Yes _____ No _____ Married? _____ Single? _____

(A \$10.00 key and security deposit must be made before a room can be officially reserved.)

Do you qualify as a legal resident of Georgia? Yes _____ No _____ Church preference? _____

YOUR PREVIOUS EDUCATION

Name of High School _____

Location _____ Did you graduate? Yes _____ No _____ When? _____
City State

Have you attended College? Yes _____ No _____ Date _____
From To

Name of College _____
City State

STI COURSES OF STUDY (Indicate with X course desired)

Building Construction _____ Civil _____ Electrical _____ Electronics _____ Gas Fuel _____ Heating and Air

Conditioning _____ Industrial _____ Industrial Management _____ Mechanical _____ Telephone _____ Textile _____

Plan of Study: Regular? _____ Co-op? _____

Check time you wish to enter. Sept. _____ Jan. _____ March _____ July _____ of year 19 _____

Signature of Applicant

(No action can be taken on High School Graduates until receipt of Official High School Transcript and College Board SAT scores.)

A Unit of the Engineering Extension Division

Georgia Institute of Technology

University System of Georgia

SOUTHERN TECHNICAL
INSTITUTE

CATALOGUE AND INFORMATION

1959-60

VOLUME XII

NUMBER I

A Unit of

ENGINEERING EXTENSION DIVISION

GEORGIA INSTITUTE OF
TECHNOLOGY

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SOUTHERN TECHNICAL INSTITUTE

CHAMBLEE, GEORGIA

TELEPHONE GL. 7-7201

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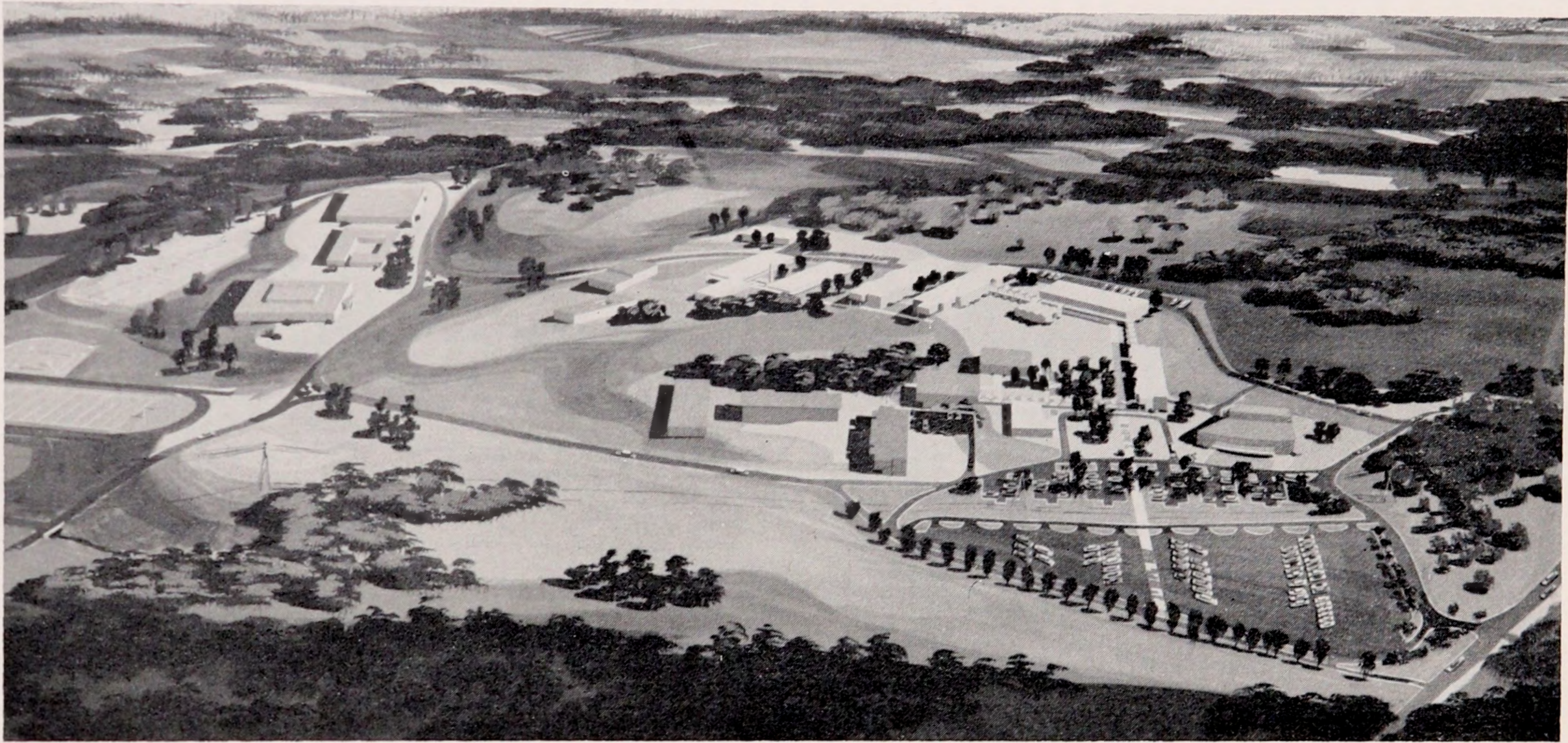
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Architects' Conception of the New Southern Tech
Buildings in white are those to be constructed immediately; the darker ones
are those to be added later.

STI OFFICIALS PROUDLY ANNOUNCE A NEW SOUTHERN TECH

Officials of the Southern Technical Institute announce with a great deal of pride and pleasure that an entirely new \$2,500,000 campus and school plant are in the process of being designed and built and that they will, in all probability, be ready for occupancy in the fall of 1960.

Location of the new facilities is Clay Street, Marietta, Cobb County, Georgia. The new site is fifteen miles northwest of Atlanta, one mile north of Lockheed Aircraft Corporation, just off the four-lane Marietta Highway, and about one mile from the center of the city of Marietta.

The new location and the modern plant were made possible through the vision and generosity of the Governor of Georgia, the people of Marietta and Cobb County, the Board of Regents of the University System of Georgia, and the Georgia Institute of Technology. Former Governor Griffin gave from his contingency fund \$2,000,000 and the people of Cobb County and Marietta contributed approximately \$500,000 in land, facilities, and services to the new project. In addition, housing for single and married students will be provided by the Marietta Housing Authority at a reasonable cost.

The campus area is 118 acres in extent, providing adequate room for buildings, athletic fields, and parking space. Southern Tech faculty, staff, and administration were called upon to supply the necessary data for a campus and facilities to care for 1600 students. Careful, minute study was made of the needs, and architects were supplied with facts and figures. Assurances from all concerned are that the new Southern Tech will be one of the most attractive, up-to-date, adequately equipped, forward-moving technical institutes in the nation. Everything essential to comfortable living and to the educational, recreational, social, and cultural growth of its student body will be provided.

Students entering Southern Tech in the fall of 1959 can look forward to spending at least one year in the new Southern Tech before graduation; those coming later will live, study, and grow there throughout the entire two years of their technical college study.

THREE-YEAR CALENDAR

1959	1960	1961
JULY	JANUARY	JANUARY
S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4	1 2	1 2 3 4 5 6 7
5 6 7 8 9 10 11	3 4 5 6 7 8 9	8 9 10 11 12 13 14
12 13 14 15 16 17 18	10 11 12 13 14 15 16	15 16 17 18 19 20 21
19 20 21 22 23 24 25	17 18 19 20 21 22 23	22 23 24 25 26 27 28
26 27 28 29 30 31	24 25 26 27 28 29 30	29 30 31
31	31	
AUGUST	FEBRUARY	FEBRUARY
S M T W T F S	S M T W T F S	S M T W T F S
1	1 2 3 4 5 6	1 2 3 4
2 3 4 5 6 7 8	7 8 9 10 11 12 13	5 6 7 8 9 10 11
9 10 11 12 13 14 15	14 15 16 17 18 19 20	12 13 14 15 16 17 18
16 17 18 19 20 21 22	21 22 23 24 25 26 27	19 20 21 22 23 24 25
23 24 25 26 27 28 29	28 29	26 27 28
30 31		
SEPTEMBER	MARCH	MARCH
S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5	1 2 3 4 5	1 2 3 4
6 7 8 9 10 11 12	6 7 8 9 10 11 12	5 6 7 8 9 10 11
13 14 15 16 17 18 19	13 14 15 16 17 18 19	12 13 14 15 16 17 18
20 21 22 23 24 25 26	20 21 22 23 24 25 26	19 20 21 22 23 24 25
27 28 29 30	27 28 29 30 31	26 27 28 29 30 31
OCTOBER	APRIL	APRIL
S M T W T F S	S M T W T F S	S M T W T F S
1 2 3	1 2	1
4 5 6 7 8 9 10	3 4 5 6 7 8 9	2 3 4 5 6 7 8
11 12 13 14 15 16 17	10 11 12 13 14 15 16	9 10 11 12 13 14 15
18 19 20 21 22 23 24	17 18 19 20 21 22 23	16 17 18 19 20 21 22
25 26 27 28 29 30 31	24 25 26 27 28 29 30	23 24 25 26 27 28 29
		30
NOVEMBER	MAY	MAY
S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6
8 9 10 11 12 13 14	8 9 10 11 12 13 14	7 8 9 10 11 12 13
15 16 17 18 19 20 21	15 16 17 18 19 20 21	14 15 16 17 18 19 20
22 23 24 25 26 27 28	22 23 24 25 26 27 28	21 22 23 24 25 26 27
29 30	29 30 31	28 29 30 31
DECEMBER	JUNE	JUNE
S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5	1 2 3 4	1 2 3
6 7 8 9 10 11 12	5 6 7 8 9 10 11	4 5 6 7 8 9 10
13 14 15 16 17 18 19	12 13 14 15 16 17 18	11 12 13 14 15 16 17
20 21 22 23 24 25 26	19 20 21 22 23 24 25	18 19 20 21 22 23 24
27 28 29 30 31	26 27 28 29 30	25 26 27 28 29 30

CALENDAR 1959-1960

Fall Quarter, 1959

September 21—Registration for "new" (beginning) and "old" (returning) students.

Orientation for beginning students.

September 22—Classes begin for returning students.

Orientation continues for beginning students.

September 23—Late registration fees apply.

Classes begin for beginning students.

September 26—Last day for registration. Last day for adding a subject to study list.

October 24—Last day for dropping a subject from study list without penalty.

October 31—End of deficiency report period.

*November 26-November 29—Thanksgiving recess.

December 19—End of term.

*December 20-January 3—Christmas recess.

Winter Quarter, 1960

January 4—Registration.

January 5—Classes begin.

January 6—Late registration fees apply.

January 9—Last day for registration. Last day for adding a subject to study list.

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

February 13—End of deficiency report period.

March 19—End of term.

*March 20-27—Spring recess.

Spring Quarter, 1960

March 28—Registration.

March 29—Classes begin.

March 30—Late registration fees apply.

April 2—Last day for registration. Last day for adding a subject to study list.

April 30—Last day for dropping a subject from study list without penalty.

May 7—End of deficiency report period.

June 11—End of term.

Summer Quarter, 1960

July 5—Registration.

July 6—Classes begin.

July 7—Late registration fees apply.

July 9—Last day for registration. Last day for adding a subject to study list.

August 6—Last day for dropping a subject from study list without penalty.

August 13—End of deficiency report period.

September 5—Labor Day Holiday.

September 10—End of term.

* * *

September 19—Registration for Fall Quarter, 1960.

* Official school holiday

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FOREWORD

OUR TECHNOLOGICAL AGE

The billions of dollars spent on research and development since World War II have made both our everyday life and industry increasingly technical and complex. The resulting enormous increase in our scientific learning and technical knowledge has not only created for us a way of life that was undreamed of 20 years ago, but has also produced a technical revolution in our industry and forced changes in our educational program—and this is only the beginning.

Today we have electric wrist watches, cinerama, miracle drugs, plastics and fibres, automatic automobiles, supersonic aircraft, and atomic energy. The advent of the transistor is making possible the mass production of electric brains, which can solve in a few hours complex problems that would require a team of engineers and scientists several years to solve. Wrist-watch radios are already in production, and moving pictures are now being recorded on magnetic tape.

Tomorrow—and many are already on the drafting board or in the laboratory—we will have automobiles and airplanes that drive or fly themselves to pre-determined destinations, rocket and jet aircraft traveling from 5,000 to 15,000 miles per hour, supersonic atomic airliners, TV telephones, electric readers for the blind, unlimited and cheap solar and atomic power, and world-wide color television, to mention only a few of these amazing developments.

Twenty years ago the processes and equipment of industry were relatively simple, and a high-school graduate with a willingness to work could build a successful career in almost any field. Today, that same man or woman would find his chances for success in the same industry very much less, or even negligible, unless he had a great deal more to offer. Today's industry requires brain-power, technical knowledge, and manual skill; the machine has taken over much of the work of the unskilled worker.

The Technical Team

Modern technical development today is the result of a team composed of (1) the professional engineer, (2) the engineering technician, and (3) the vocational specialist or craftsman. The education required and the work done by each are outlined as follows:

The Professional Engineer

The engineering student does not usually concern himself with the "know-how" of doing things; instead, he concentrates on the "know-why" of science. He, therefore, must have the concentrated training in the sciences, mathematics, physics, and chemistry, and



the application of these principles to research, design, and development. In order to qualify for creative work in the fields of modern chemistry, atomic energy, aeronautics, electronics, etc., a student must earn his Bachelor's degree, and preferably his Master's and Doctor's degree—and then gain his scientific skill by hard work in the field.

America needs thousands of professional engineers and scientists, and for the student who is qualified for the work and who will spend the time and energy required, the opportunities to serve his fellow man and to gain fame and fortune are bright.



The Engineering Technician

The engineering technician serves in the applied field of engineering and industry, and must possess much of the know-why of the engineer and the know-how of industry. He does not usually have the concentrated training in mathematics, physics, and other subjects needed to derive the mathematical equations,

chemical formulas, or the electronic circuits, etc.; but he must be well-grounded in the fundamentals of these subjects so that he will be able to take the plans of the engineer, scientist, or inventor, and by the co-ordination of men, materials, and machines produce the finished product.

The two-year technical institute curriculum for training engineering technicians must, therefore, provide a strong background in mathematics, physics, mechanics, electricity, English, human relations, and management, and emphasize the application of these principles to the processes, machines, instrumentation, management, and technical skills in his field of specialization. The graduate of the two-year Technical Institute College receives an Associate in Science degree in his field of specialized study.

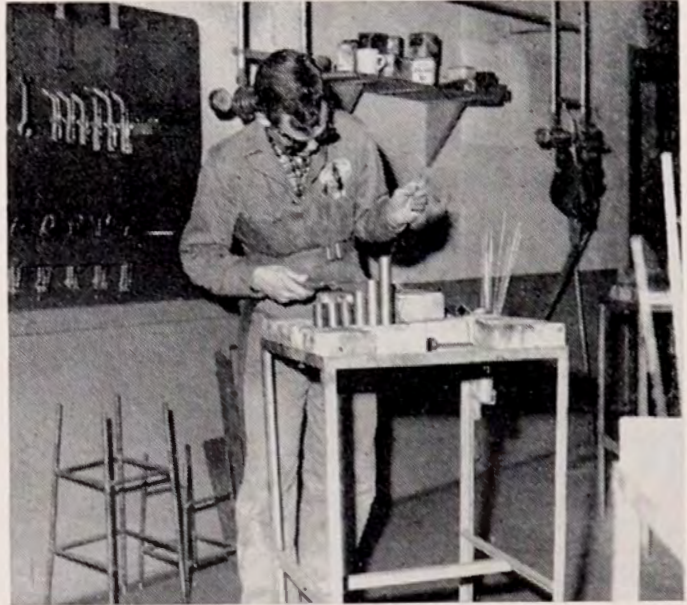
Because of this training, the engineering technician has a broad choice of technical positions at excellent beginning salaries and should qualify for rapid advancement. In the laboratory, the graduate serves as laboratory technician or engineering associate to carry out many of the tests, experiments, inspections, and calculations of modern research. In the factory, he serves as engineering aide, foreman, inspector, process specialist, technical salesman, estimator, specifications writer, production engineer, and department head. In the field, engineering technicians are needed for construction, installation, operation, and maintenance of thousands of installations whose specialized and complex nature require skills and a knowledge of basic science beyond that of the mechanic. Many become contractors or proprietors of their own business.

The engineering technician is usually more skilled in doing things than is the engineer. A radio and electronics technician, for example, is generally more interested in building, operating, and maintaining a television, radio, or radar station; whereas the electrical engineer is more interested in the design of new circuits and other improvements for the station. In brief, the engineer designs and projects; the technician builds, supervises, operates, tests, sells, inspects, and manages.

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

The Skilled Craftsman

The vocational specialist or skilled craftsman is the person trained to do jobs that machines as yet cannot do. He is the electrician, plumber, cabinet maker, machinist, and repair man. He generally works with materials, tools, and machines rather than with calculating equipment, processes, and instruments, and is usually not concerned with supervision and management of people.



ADVANTAGES OF SOUTHERN TECHNICAL INSTITUTE TRAINING

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Extracurricular Activities.

Draft Deferment for Qualified Students

Effective Job-Placement Service.

Good Salaries for Graduates.

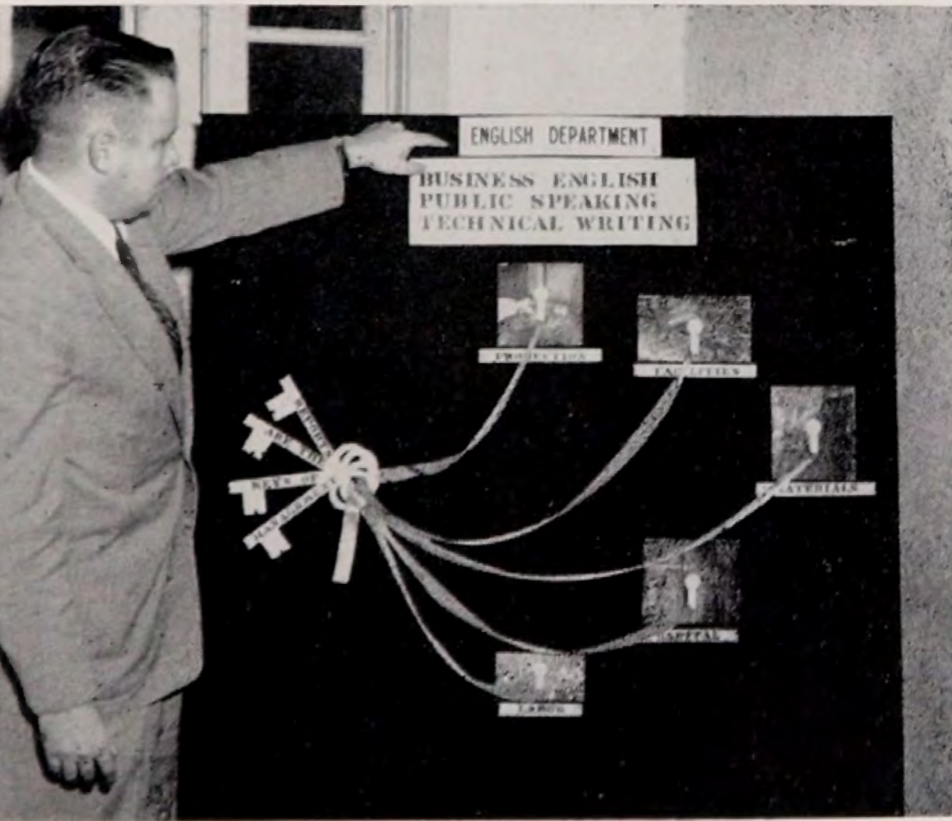
Associate in Science Degree.

THE TECHNICIAN'S TRAINING

Each of the eleven 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 skills 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 eleven technological courses, the study of which makes of the student a specialist in his chosen field.

I. COMMUNICATION SKILLS



English

Since one's ability to use spoken and written English effectively plays such a major role in his progress and success in later life, every Southern Tech student is required to study Composition and Rhetoric, Business Correspondence, Public Speaking, and Technical Writing.

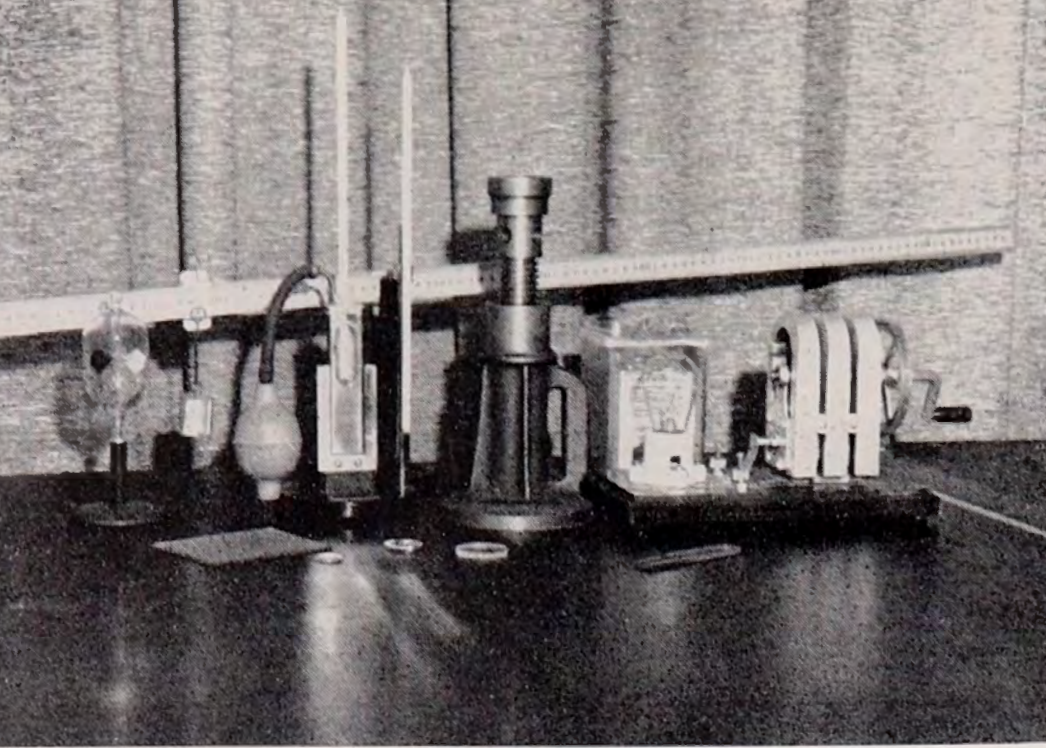
Drawing



II. BASIC SCIENCES

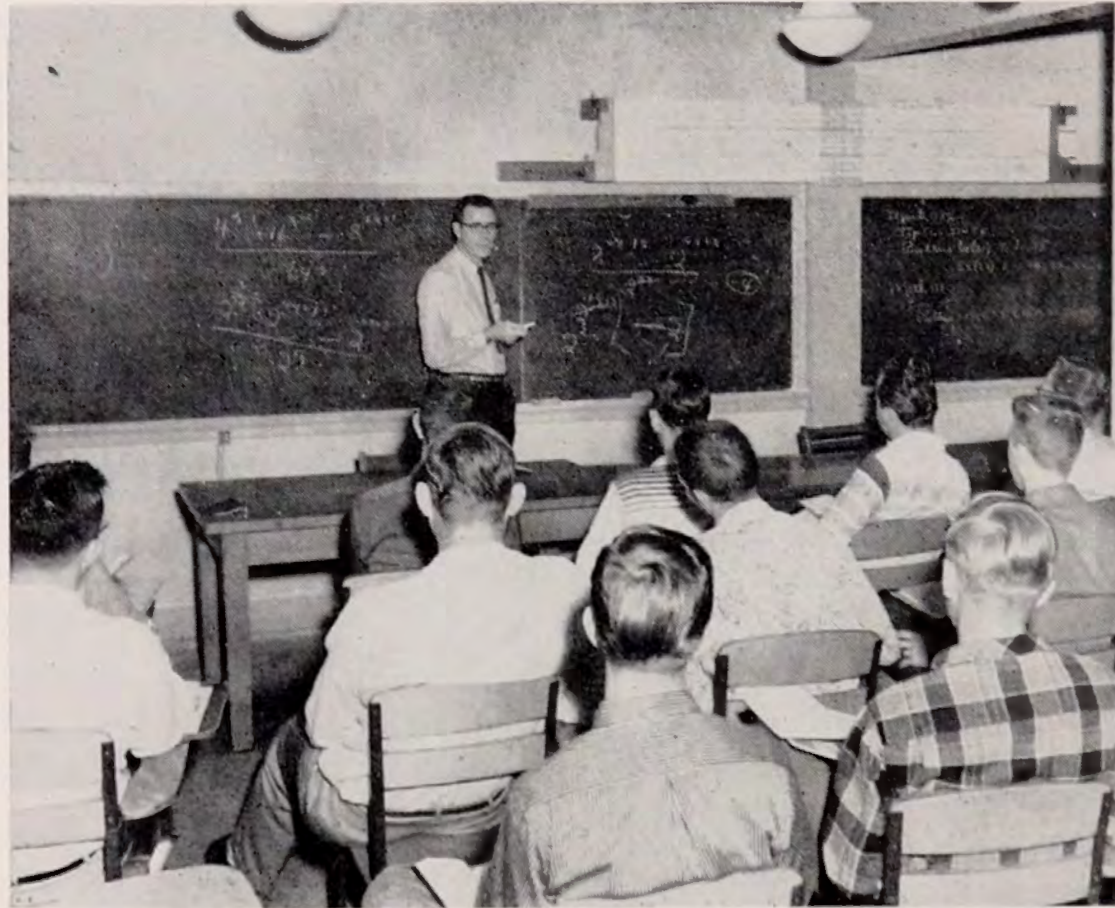
Physics

The basic scientific background acquired in the study of physics is so essential to full understanding of the later work in his specialized field that every student takes 16 credit hours of this subject.

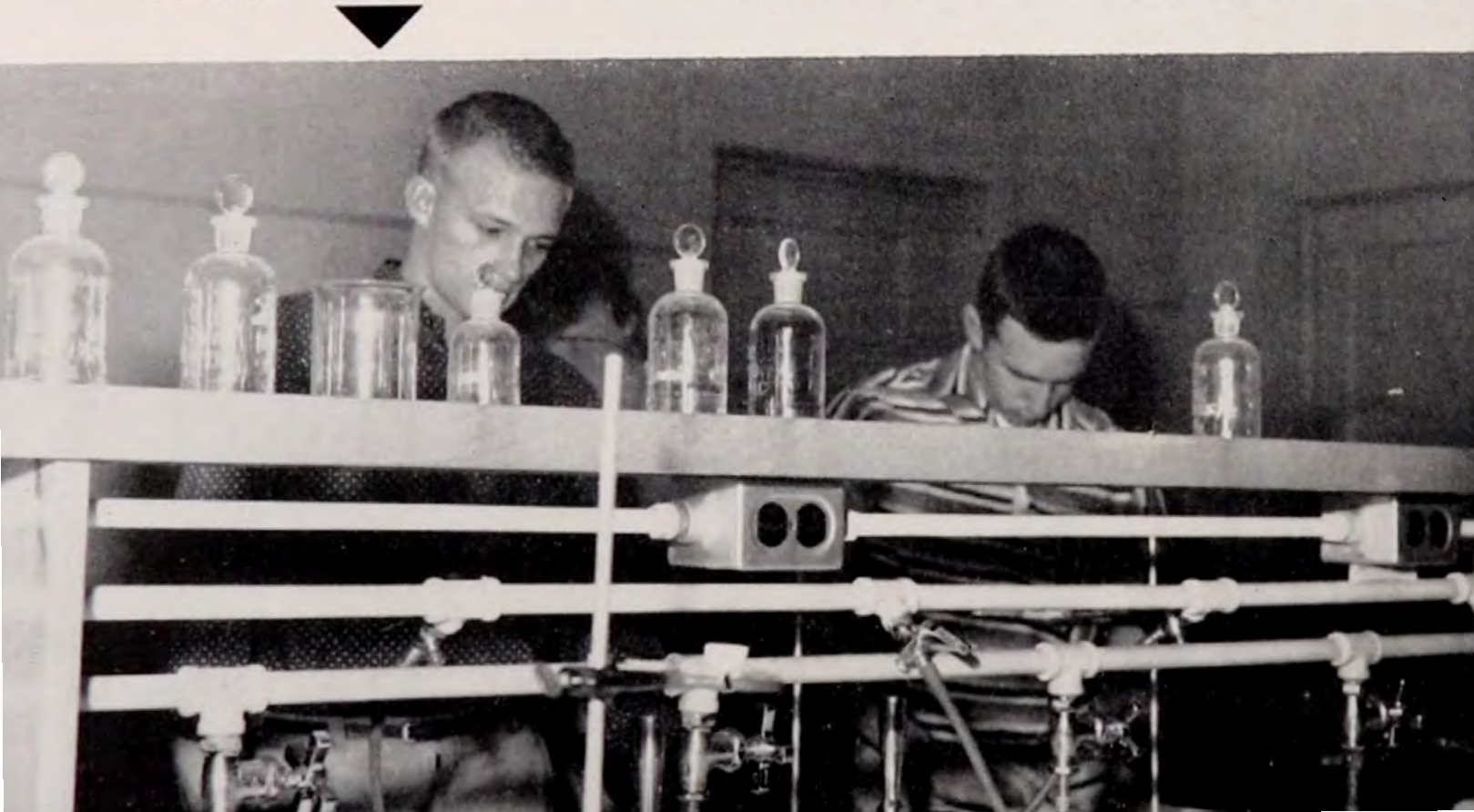


Mathematics

Mathematics is regarded as the technician's most important tool subject: it is to him what the wrench is to the mechanic. Depending on his technical specialty, the student studies from 11 to 16 credit hours of mathematics.



At Work in Chemistry,
Another of STI's Basic
Sciences



III. SUPERVISORY TRAINING

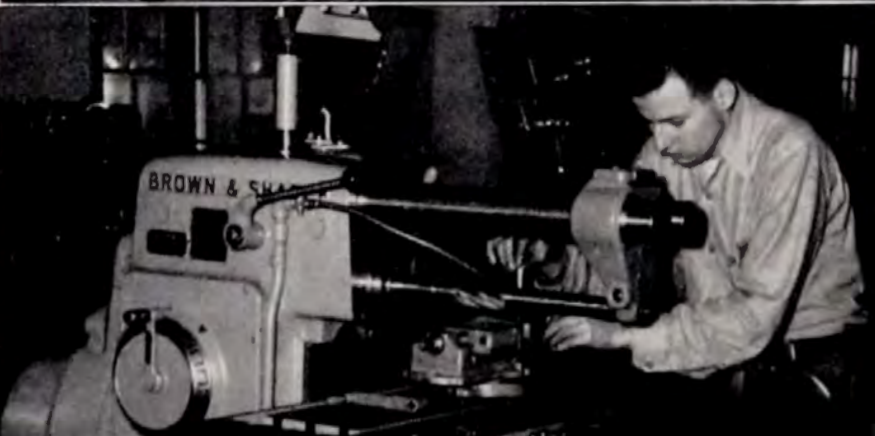


Every student who enrolls at Southern Tech is regarded as a potential supervisor — whatever the field of his specialty. All students, therefore, study, in addition to their specialized work, subjects which assist them to know people better; to guide, direct, and coordinate their efforts; to instruct them; and to get along with them successfully. These subjects include spoken and written English, Human Relations, Labor Relations, Supervisory Training, Safety, Industrial Sales and Purchasing, and Contracts and Specifications.

Among Many Techniques Learned Are Motion and Time Study (above) and Conducting Conferences (below)



IV. TECHNICAL SPECIALTIES



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 eleven years of operation, the Southern Technical Institute has graduated and sent into industry 1653 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. Three 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

Rooms in Dormitories 19 and 20 are designed to accommodate two occupants comfortably, and each room is furnished with single beds with innerspring mattresses. Rooms in Dormitory 41 are sufficiently large to house three students, and double-deck beds are used. All dormitory rooms are provided with dresser, study table, chairs, closet, luggage space, and ceiling-type lights.

The student must provide bed linen, blankets (2), a pillow, towels, a desk lamp, and any other personal items that he may desire.

Married students may secure at reasonable rents one-bedroom or two-bedroom apartments, furnished or unfurnished, at 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	\$95.00	\$3.50	\$5.00	\$185.00	\$555.00

NOTE: (a) Matriculation, tuition, student activity, and medical fees of veterans enrolled under PL 16, 894, and 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.

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	\$555.00
Board and room	600.00	600.00
Books and Supplies	100.00	100.00
Key and security deposit	10.00	10.00

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 to students living in Dormitories 19 and 20. Students rooming in Dormitory 41, however, are not required to eat their meals in the STI dining hall.

For the academic quarter the cost of room and board is \$170.00, which amount includes housing and three meals a day except Sundays and official school holidays, when the dining hall will be closed.

Fifty dollars of the \$170.00 is for room rent, and \$120.00 for board. The total cost of room rent must be paid on registration day and the check made out to the Southern Technical Institute. The amount for board may be paid in two installments of \$61.00 each, payable upon registration and at the end of the first month; and the check must be separate from the cost of room rent and made payable to the Southern Technical Institute Dining Hall.

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

Since Southern Tech does not operate a laundry, the cost of the student's laundry is not included in the prices stated above.

PARKING FEE

All students who park an automobile on the Southern Tech campus are charged a parking fee, the amount depending upon where he parks. If the student commutes and parks on the main area of the campus, he pays \$3.00 per year; if he is a dormitory student and parks in dormitory areas, he pays \$2.00 per year. Money from parking fees is used to maintain parking areas and to employ personnel to enforce parking regulations and speed laws and thereby make the campus safer for everyone.

PENALTY FEE

A penalty fee will be charged for failure to pay room and board costs or make satisfactory arrangements for delayed payment on or before the last date due. The penalty fee will be five dollars (\$5.00) for the first day following the date due and one dollar (\$1.00) for each of the next three days, the total not to exceed eight (\$8.00).

MATRICULATION DEPOSIT

Although a student may be accepted for admission, he cannot be assured that a place will be reserved for him unless he submits with his application a matriculation deposit of \$25.00. This fee is applied to his expense if he enrolls; if he does not, it is refundable, **provided he makes a written request for it thirty days before registration date of the quarter he was to enter.**

KEY AND SECURITY DEPOSIT

A \$10.00 key and security deposit must be made by students who live in the STI dormitories. To assure reservation of a dormitory room, the student must send this deposit when he is accepted for admission. This deposit will be refunded at the end of the school year or at such time when a student may leave school, provided the key is turned in and there is no damage to dormitory facilities for which he is responsible.

Since this fee or a portion thereof is refundable, boarding students attending Southern Tech with financial assistance from the Division of Vocational Rehabilitation are responsible for the payment of the Key and Security Deposit themselves.

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.

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.

REFUND OF FEES

No portion of the room rent, the student activity fee, or the medical fee is refundable. Refund of tuition and other educational fees will be made only upon official, written application for withdrawal and in accordance with the following schedule.

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 BOARD CHARGES

To become eligible for any refund of board charges, the student must, in addition to withdrawing from school officially, vacate his dormitory room and surrender the unused portion of his meal ticket to the Dining Hall Office. Amount of the refund will be figured from the day the meal ticket is actually turned in to the Dining Hall Office.

DEFINITION OF LEGAL RESIDENCE

To be considered a legal resident of Georgia for the purpose of registering at the Southern Technical Institute, a student must present evidence as follows:

(a) If under 21 years of age, that the supporting parent (or guardian) has been a bona fide resident of the State of Georgia for at least one year next preceding the registration date.

In the event that a legal resident of Georgia is appointed as the guardian of a non-resident minor, such minor does not become a resident until the expiration of one year from the date of appointment, and then only upon proper showing that such appointment was not made to avoid the non-resident fee.

(b) If over 21 years of age, that bona fide residence in the State of Georgia has been established for at least one year next preceding registration and that he is eligible to become a registered voter. No person shall be deemed to have gained or lost residence while a student at the Southern Technical Institute.

Any time during which a person is enrolled as a student in any

educational institution in Georgia may not be counted as a part of the year's residence.

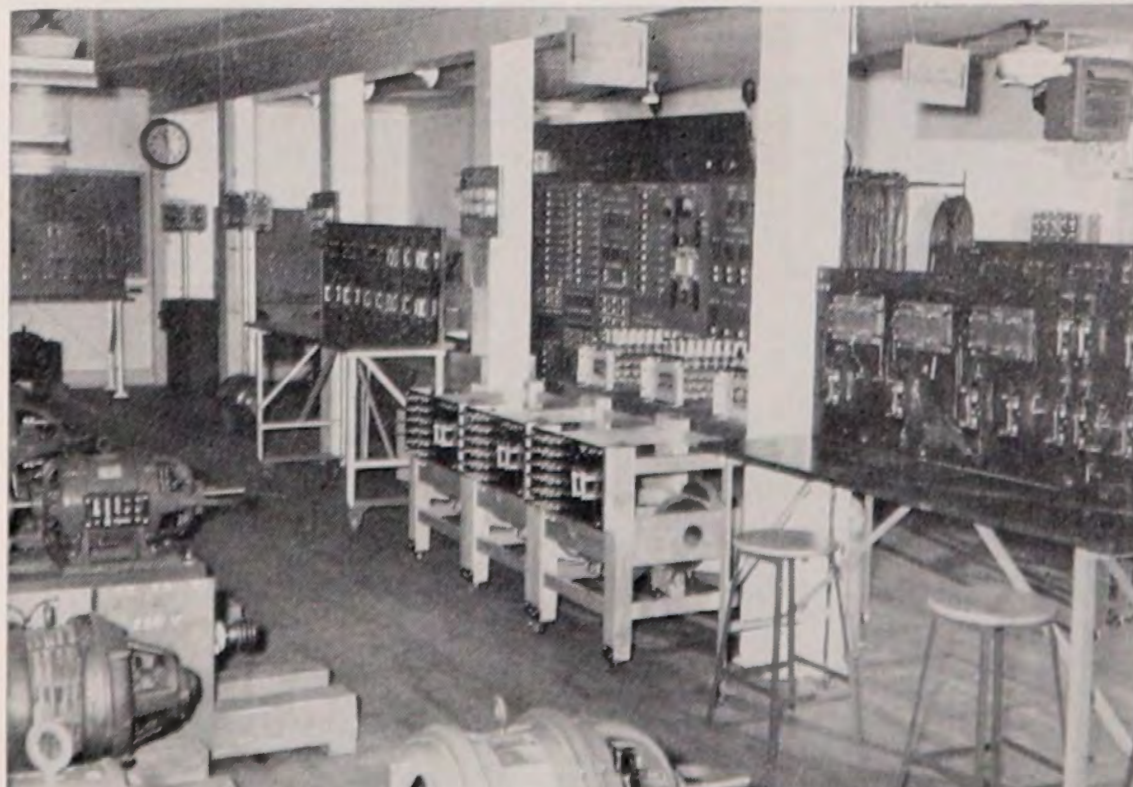
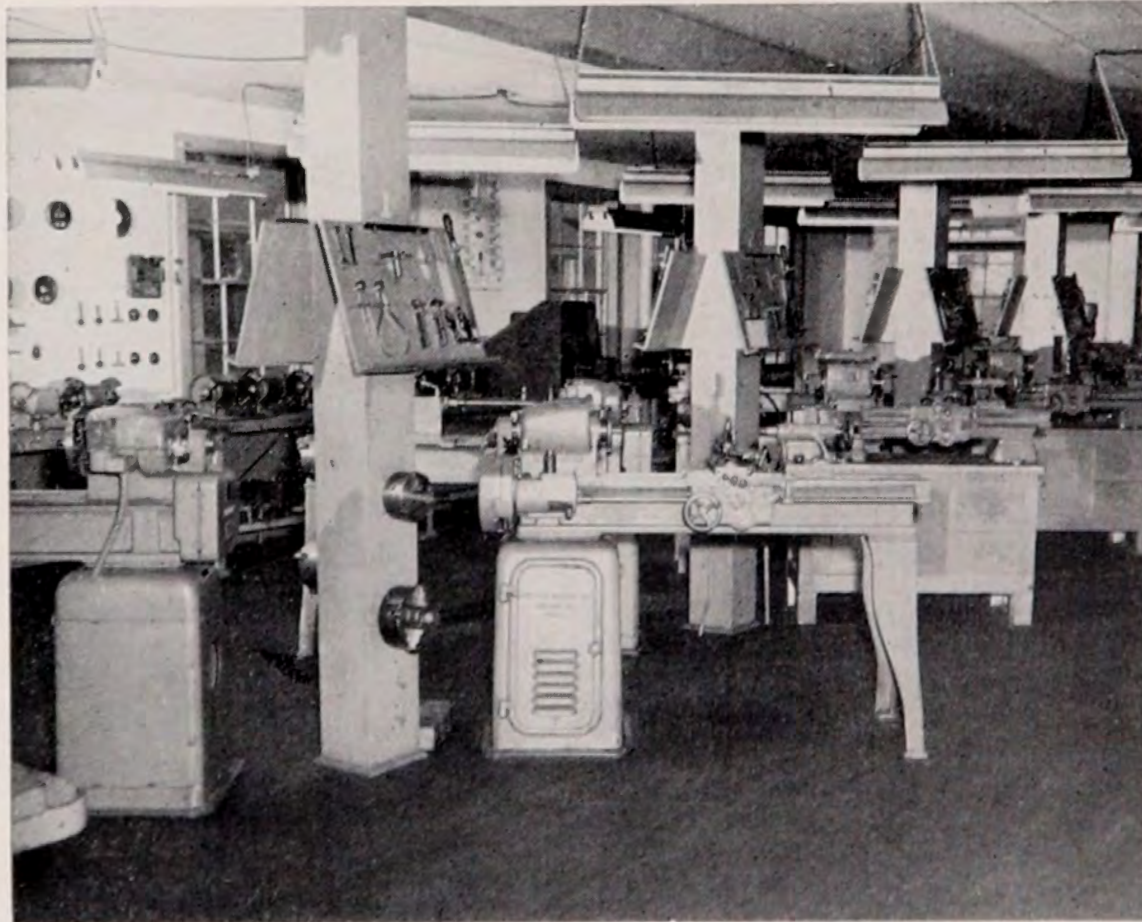
Active military assignment in the State of Georgia may not count towards this residence requirement.

VETERANS PROGRAM

The school is approved for the training of veterans under Public Law 16 (Disability), Public Law 550 (Korean), and Public Law 894 (Korean 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, GL. 7-7201).

SOUTHERN TECH EQUIPMENT IS SUPERIOR

Each of Southern Tech's eight curricula is based upon an excellent, effective study-combination of 60 per cent theoretical material and 40 per cent practical work. In the Institute's 30 shops and laboratories is found a wide variety of the most modern equipment available. All departments possess everything necessary to build, work out, test, inspect, demonstrate, or prove the projects, problems, or principles encountered by the student in his two years of training.



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 ill students who elect to remain outside the infirmary. In these instances the student, parent or guardian is responsible for such added expense.

GAS FUEL TECHNOLOGY FOUNDATION

The Liquefied Petroleum Gas Association recently abolished its scholarship program and established a loan fund to replace it.

Under the new plan of financial assistance, a student can borrow up to the full amount of his tuition and fees for six quarters at no interest until one year after he terminates his training in the Gas Fuel Technology course. Beginning one year after the termination of the Gas Fuel Technology course, the loan will bear interest at the rate of five per cent per annum. The student is allowed a period of five years after completion of the course in which to repay the loan.

Information on how to secure one of these loans may be obtained from the Registrar, 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.

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.

PLACEMENT SERVICE

The Placement Service is available to all Southern Technical Institute graduates and candidates for graduation. The emphasis is directed toward placing students in their last quarter of study, but the service is also available any time after graduation. The chief function of the Placement Bureau 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, and 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 full-time secretary and one faculty member. Their services are available at regularly scheduled hours.



Counseling Service

Student and Counselor meet in conference to work out school problems. Course advisers are always available to assist the students in their departments with personal, academic, or other difficulties.

Placement Service

When job-seeking time comes, STI's Placement Director acts as liaison between graduate and prospective employer.

A representative of a leading industry in the nation talks job opportunities with an STI student.



ACADEMIC REQUIREMENTS

REQUIREMENTS FOR ADMISSION

A qualified student may enroll in the Southern Technical Institute at the beginning of any quarter—fall, winter, spring, or summer. If however, he enters in any quarter other than the fall, the school can not assure him that he can complete the six quarters' work in eighteen months' time, because of scheduling difficulties which are likely to arise.

To be accepted for admission, applicants must be graduates of an accredited high school or have passed satisfactorily the General Educational Development (GED) Tests. Also they must have credit for two high-school units of algebra, one of plane geometry, and three of English. In addition all applicants must have taken the College Entrance Examination Board Scholastic Aptitude Tests (Verbal and Mathematical) and submitted scores to Southern Tech officials.

For those students who lack one or more of these entrance credits or who wish to strengthen their preparation for college work, Southern Tech offers pre-freshman courses in algebra, geometry, physics, and English.

Examinations will be given to entering freshmen to determine their aptitude and ability in basic algebra and English.

Beginning in the fall of 1960 Southern Tech will increase the English entrance requirement to four units.

SCHOLASTIC APTITUDE TESTS

Further information about the College Board Scholastic Aptitude Tests may be obtained from the student's high-school principal or counselor or by writing the College Entrance Examination Board, P. O. Box 592, Princeton, N. J.

Supplying information, administering and grading the tests, and furnishing the school the scores are functions and services of the CEEB; the student, therefore, will save time by writing directly to the Board for an application and its *Bulletin of Information*.

ADMISSION PAPERS

If the applicant is a non-veteran, he must supply the school with four completed admission papers; if a veteran, with five:

1. **An Application for Admission.**
2. **A Certificate of Recommendation.** (See page 26 and inside of back cover.)
3. **A high-school transcript,* if a graduate; if not a high-school graduate, a high-school transcript and an official copy of satisfactory scores on the General Educational Development (GED) Tests.**
4. **A VA Certificate of Eligibility, if a veteran entitled to assistance from the G.I. Bill.**
5. **Results of Scholastic Aptitude Tests.**

*Obtaining the transcript is the student's responsibility. He should request the high school that he attended to send a copy of subjects and grades directly to the Registrar of Southern Tech.

ACADEMIC REQUIREMENTS

ADVANCED STANDING

Students may be admitted for 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.

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 (1.80), and (3) has paid all required fees, fines, and other financial obligations owed the school.

Southern Tech awards an Associate in Science Degree to each student who satisfactorily completes the required program of study for his chosen field as outlined in this catalogue.

Only one graduation exercise a year is held—that in June, at the end of the spring quarter.

GRADE REPORTS

Reports on students are mailed to parents soon after the close of each academic quarter. Reports are also sent to parents at mid-quarter, if the students are failing in any subject. If a student is passing all subjects, no report is made on his work until the end of the quarter.

MINIMUM CLASS SIZES

No classes will be scheduled in service subjects (English, drawing, physics, mathematics, chemistry, and a number of specialized subjects serving more than one curriculum) with enrollments of less than twelve students; other subjects will not be offered with enrollments of less than ten.

RULES AND REGULATIONS

Every student is obligated to become thoroughly acquainted with *The Green Hornet*, official student handbook of the Southern Technical Institute. From this booklet he will gain vital information concerning attendance, grades, point averages, conduct, withdrawal from school, activities, etc.

Students are also responsible for all official announcements which appear in "The Weekly Bulletin" and *The Technician*, student monthly newspaper.

CERTIFICATES OF RECOMMENDATION

1. Any resident of Georgia applying for admission to an institution of the University System of Georgia shall be required to submit certificates from two citizens of Georgia, alumni of the institution that he desires to attend on prescribed forms, which shall certify that each of such alumni is personally acquainted with the applicant, that he is of good moral character, bears a good reputation in the community in which he resides, and, in the opinion of such alumnus, is a fit and suitable person for admission to the institution and able to pursue successfully the courses of study offered by the institution he desires to attend.

Provided, however, that any applicant who seeks admission to an institution with an enrollment of less than 1000 students and who lives in a county in which no alumnus of the institution he wishes to attend resides, may furnish a certificate from the Judge of the Superior Court of his circuit in lieu of the certificate from alumni. In such a case the certificate of the Judge of the Superior Court shall set forth the same facts that the alumni certificate must contain in other cases.

Each such applicant shall also submit a certificate from the Ordinary or Clerk of the Superior Court of the county in which the applicant resides that such applicant is a bona fide resident of such county, is of good moral character and bears a good reputation in the community in which he resides.

2. Any non-resident of the State applying for admission to an institution of the University System of Georgia shall submit a similar certificate from two alumni of the institution that he desires to attend, or from two reputable citizens of the community in which the applicant resides.

Every such applicant shall also submit a certificate from a judge or a court of record of the county, parish or other political sub-division of the State in which he resides that he is a bona-fide resident of such county, parish or other political subdivision and a person of good moral character and bears a good reputation in the community in which he resides.

3. There is reserved to every institution of the University System of Georgia the right to require any applicant for admission to take appropriate intelligence and aptitude tests in order that the institution may have information bearing on the applicant's ability to pursue successfully courses of study for which the applicant wishes to enroll and the right to reject any applicant who fails to satisfactorily meet such tests.

EXTRACURRICULAR ACTIVITIES

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 yearbook. *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 outstanding in extracurricular activities.

Technician



A Unit of Georgia

ol. X

Southern Technical Institute, Chamblee, Ga., October, 1957



n Tours Campus

ed. Prof. Howell, President Her

School Initiates Textile Program Under Mr. Alford

The tremendous demand for trained manpower in Georgia and in the South's largest industry, textiles, led to the initiation of a Textile Department here at Southern Tech. It is backed by industrial leaders all over the state. They have advocated and urged it for the past ten years through the Textile Education Foundation, and it will continue to help the new program in every way possible.

The purpose of the course is to train ambitious high school grad-

Enrollment of 813 C Increase of Ten Per

STI's Largest Student Body I
392 New Men; Seven Teacher

Eight hundred and thirteen students, all male, enrolled for fall quarter work at the Southern Technical Institute during registration week of September 23 through September 28. This number is the largest in the school's nine-and-a-half year history and represents a ten per cent increase over the September, 1956, registration of 736.

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companies.

The new year
(Continued o

Work Beg On Chemi

At the Septemb

THE TECHNICIAN'S LOG

**THE
TECHNICIAN'S
LOG**



**THE
TECH**

**THE
TECHNICIAN'S
LOG**



Students Gain Valuable Experience While Producing
the Yearbook

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, baseball, golf, tennis, 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.

The physical plant includes a full-size college basketball court, tennis courts, football field, baseball and softball diamonds, and an outdoor volleyball court.



Recent Basketball Squad



1958 Baseball Squad

The First Five



Students Participate in Collegiate and Intramural Sports



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 become a member of several live, progressive, campus-wide organizations, depending upon his interests and qualifications—the Photo Club, the Amateur Radio Club, the Glee Club, the Society for the Advancement of Management (SAM), the Toastmasters International, Circle "K," the Christian Association, and the American Society of Metals.

Superior scholastic achievement is recognized by membership in the Tau Alpha Pi Honor Society, and athletic prowess through the Monogram 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 student activities, chartering student organizations, and conducting group meetings.



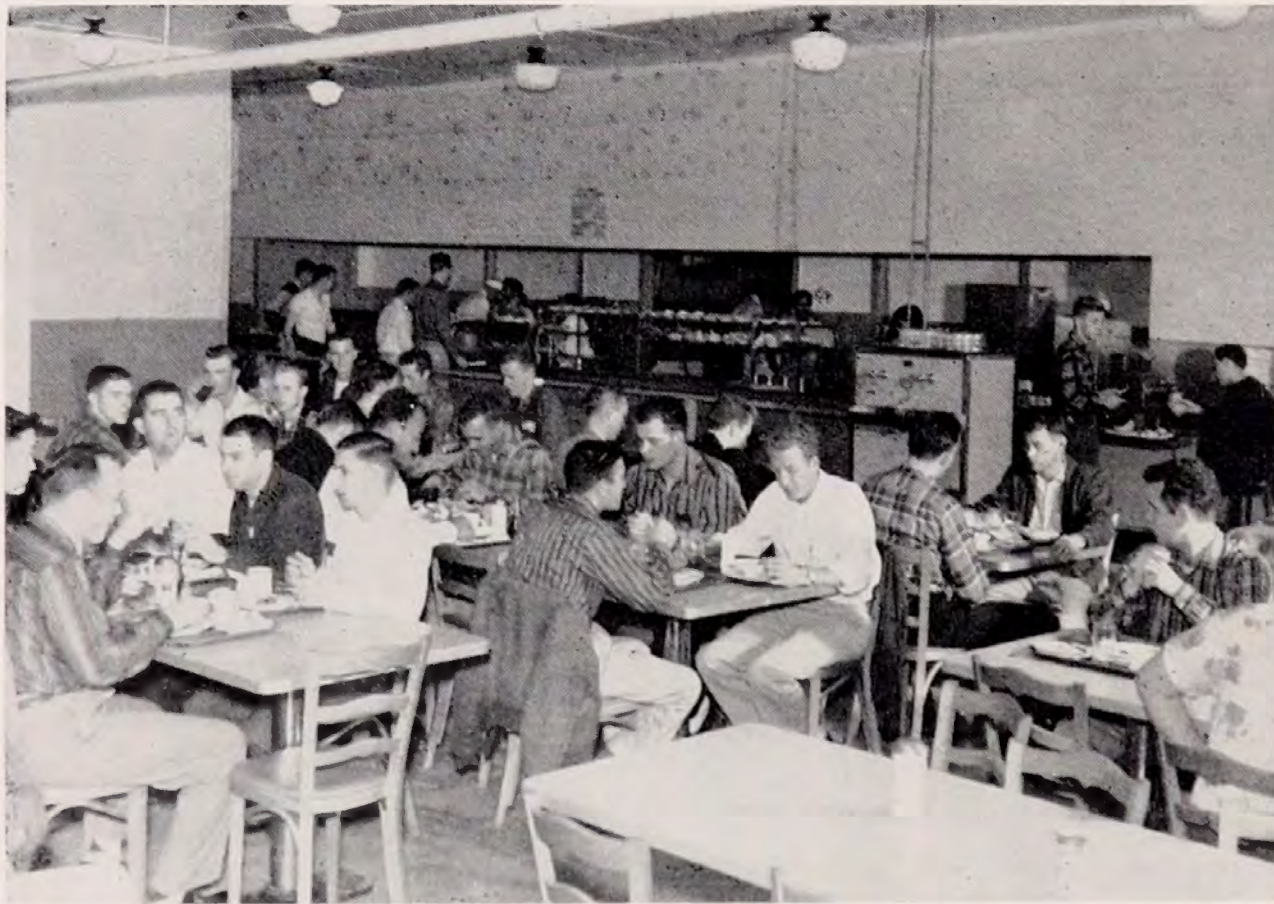
A.S.T.E. Gets
Charter

The
Latin-American
Club





Dormitory Rooms Are
Conducive to Study
and Comfortable Living



A Popular
Place Three
Times a Day



Frequent
Dances Are
Held
in the Gym

SOUTHERN TECHNICAL INSTITUTE

COURSES OF STUDY

BUILDING CONSTRUCTION TECHNOLOGY

CIVIL TECHNOLOGY

ELECTRICAL TECHNOLOGY (POWER OPTION)

ELECTRICAL TECHNOLOGY (ELECTRONICS OPTION)

ELECTRICAL TECHNOLOGY (TELEPHONE OPTION)

GAS FUEL TECHNOLOGY

HEATING AND AIR CONDITIONING TECHNOLOGY

INDUSTRIAL TECHNOLOGY

INDUSTRIAL TECHNOLOGY (MANAGEMENT OPTION)

MECHANICAL TECHNOLOGY

TEXTILE TECHNOLOGY

Co-operative plans (alternate quarters of scholastic study and work in industry) are available in Civil and Textile Technologies.

ACCREDITATION OF STI CURRICULA

Building Construction, Civil, Electrical (Power Option), Electrical (Electronics Option), Gas Fuel, Heating and Air Conditioning, Industrial, and Mechanical Technologies are Engineers' Council for Professional Development accredited Technical Institute curricula.

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 Industrial 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—such as, 5—3—6—may be explained by the following example. T. Phys. 122 (Electricity) 5—3—6 indicates a 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 TECHNOLOGY

Building Construction Technology is concerned with the design, supervision, and construction of homes, factories, schools, stores, and municipal 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, 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.

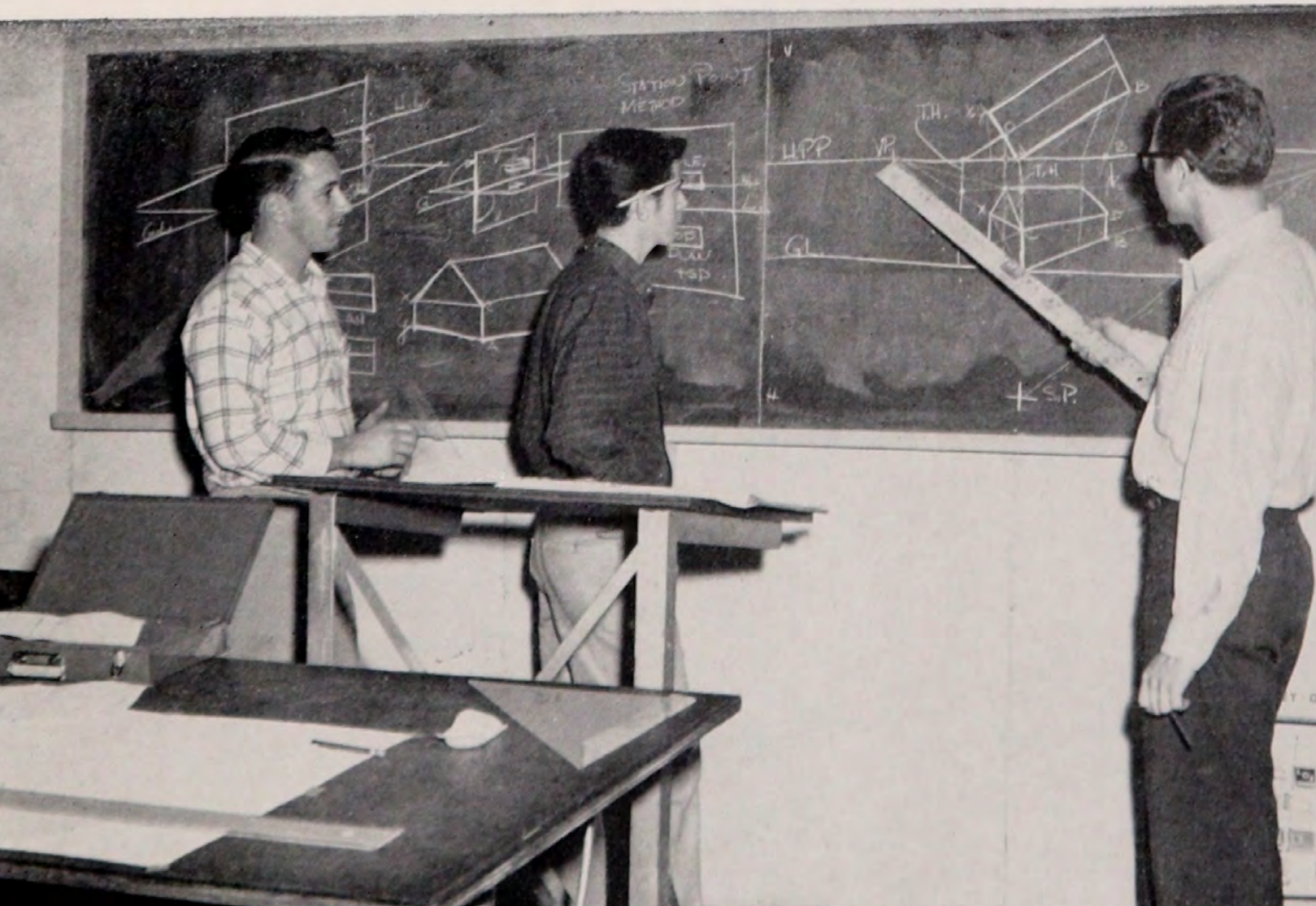
A more complete description of each subject is given in the back of this catalogue.

C	L	T	Class hours	Laboratory hours	Total quarter hours
<hr/>					
First Quarter					
	C	L	T		
Arch. T. 141 (Blueprint Read.)	3	0	3		
T. Dr. 111 (Tech. Draw. I)	0	6	2		
T. Eng. 111 (Comp. & Rhet.)	3	0	3		
Ind. T. 111 (Human Relations)	3	0	3		
T. Math. 111 (Algebra)	5	0	5		
Total	14	6	16		
<hr/>					
Second Quarter					
	C	L	T		
Civil T. 121 (Elem. Surv.)	3	9	6		
T. Eng. 112 (Comp. & Rhet.)	3	0	3		
T. Math. 112 (Trig., Analyt.)	5	0	5		
T. Phys. 121 (Mechanics)	5	3	6		
Total	16	12	20		
<hr/>					
Third Quarter					
	C	L	T		
Arch. T. 121 (Graphics)	3	9	6		
Arch. T. 142 (Bldg. Mat.)	3	0	3		
Civil T. 112 (Mech. of Mat.)	5	3	6		
Civil T. 214 (Mat. Testing)	1	3	2		
T. Phys. 123 (Ht., Sound, Lt.)	3	3	4		
Total	15	18	21		
<hr/>					
Fourth Quarter					
	C	L	T		
Arch. T. 222 (Bldg. Design I)	3	12	7		
Arch. T. 231 (Arch. Hist.)	3	0	3		
Civil T. 111 (Graphic Statics)	0	3	1		
Ind. T. 243 (Business Law)	3	0	3		
T. Phys. 122 (Electricity)	5	3	6		
Total	14	18	20		
<hr/>					
Fifth Quarter					
	C	L	T		
Arch. T. 211 (Wd., Stl. Const.)	3	6	5		
Arch. T. 223 (Bldg. Design)	3	9	6		
Arch. T. 243 (Bldg. Equip.)	3	0	3		
Civil T. 212 (Struc. Draft.)	0	6	2		
T. Eng. 221 (Public Speaking)	3	0	3		
Ind. T. 261 (Seminar)	1	0	1		
Total	13	21	20		
<hr/>					
Sixth Quarter					
	C	L	T		
Arch. T. 212 (Concrete Const.)	3	6	5		
Arch. T. 224 (Bldg. Design)	3	9	6		
Arch. T. 244 (Costs, Estimates)	3	3	4		
Civil T. 213 (Struc. Draft.)	0	6	2		
T. Eng. 231 (Tech. Writing)	3	0	3		
Total	12	24	20		

POSITIONS NOW HELD BY STI GRADUATES
OF BUILDING CONSTRUCTION

Engineering Draftsman
Estimator-Expediter
Template Maker
General Contractor
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
Architect

All Phases of Building Are Given Consideration



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. 142 (Bldg. Materials)	3	—	3
T. Chem. 112 (Gen. Chemistry)	5	—	6
T. Dr. 111 (Tech. Draw. I)	0	—	2
T. Eng. 111 (Comp. & Rhet.)	3	—	3
T. Math. 111 (Algebra)	5	—	5
Total	16	—	19

Second Quarter

	C	L	T
Civil T. 111 (Graphic Statics)	0	—	1
Civil T. 121 (Elem. Surv.)	3	—	6
T. Eng. 112 (Comp. & Rhet.)	3	—	3
T. Math. 112 (Trig., Analyt.)	5	—	5
T. Phys. 121 (Mechanics)	5	—	6
Total	16	—	21

Third Quarter

	C	L	T
Civil T. 112 (Mech. of Mat.)	5	—	6
Civil T. 122 (Route Surv.)	3	—	5
Civil T. 131 (Hwy. Const.)	3	—	3
T. Phys. 122 (Electricity)	5	—	6
Total	16	—	20

Fourth Quarter

	C	L	T
Civil T. 214 (Mat. Testing)	1	—	2
Civil T. 223 (Land. Surv.)	3	—	5
Civil T. 232 (Heavy Const.)	3	—	4
T. Eng. 221 (Public Speaking)	3	—	3
Ind. T. 111 (Human Relations)	3	—	3
T. Phys. 123 (Ht., Sound, Lt.)	3	—	4
Total	16	—	21

Fifth Quarter

	C	L	T
Arch. T. 212 (Concrete Const.)	3	—	5
Arch. T. 244 (Costs, Estimates)	3	—	4
Civil T. 212 (Struc. Draft.)	0	—	2
Civil T. 224 (Top., Con. Surv.)	2	—	4
Civil T. 241 (Hydraulics)	5	—	5
Total	13	—	20

Sixth Quarter

	C	L	T
Arch. T. 211 (Wd., Stl. Const.)	3	—	5
Civil T. 213 (Struc. Draft.)	0	—	2
Civil T. 242 (W., S. Plt. Opr.)	3	—	3
Civil T. 251 (Photogrammetry)	0	—	2
T. Eng. 231 (Tech. Writing)	3	—	3
Ind. T. 243 (Business Law)	3	—	3
Ind. T. 261 (Seminar)	1	—	1
Total	13	—	19

POSITIONS NOW HELD BY STI GRADUATES OF CIVIL TECHNOLOGY

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, Consulting Engineering firms, and State Highway Departments.

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

Photogrammetric Technician

Cartographer

Topographer

Topographic Draftsman

Structural Draftsman

Concrete Laboratory Technician

Inspector or Estimator on Heavy Construction Jobs

Subdivision Designer

Licensed Professional Surveyor

Photogrammetry Is Essential in the Study of Civil Technology Today



ELECTRICAL TECHNOLOGY

POWER OPTION

The Power Option curriculum was designed 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 Power Option 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 detailed 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. Draw. 111 (Tech. Draw. I)	0—6—2	
Elec. T. 130 (Int. Elec. Tech.)	5—0—5	
T. Eng. 111 (Comp. & Rhet.)	3—0—3	
Ind. T. 111 (Human Relations)	3—0—3	
T. Math. 111 (Algebra)	5—0—5	
Total	16—6—18	
Second Quarter		
	C L T	
Elec. T. 131 (Basic Electronics)	5—3—6	
T. Eng. 112 (Comp. & Rhet.)	3—0—3	
T. Math. 112 (Trig. & Analyt.)	5—0—5	
T. Phys. 122 (Electricity)	5—3—6	
Total	18—6—20	
Third Quarter		
	C L T	
Elec. T. 121 (A-C Circuits)	5—3—6	
Elec. T. 251 (D-C Machinery)	3—3—4	
T. Math. 113 (Applied Math.)	5—0—5	
T. Phys. 121 (Mechanics)	5—3—6	
Total	18—9—21	
Fourth Quarter		
	C L T	
Elec. T. 122 (A-C Circuits)	5—3—6	
Elec. T. 232 (Ind. Electronics)	5—3—6	
Elec. T. 244 (Comm. Circuits)	3—3—4	
T. Phys. 123 (Ht., Sound, Lt.)	3—3—4	
Total	16—12—20	
Fifth Quarter		
	C L T	
Arch. T. 141 (Blueprint Read.)	3—0—3	
Elec. T. 224 (A-C Circuits)	2—3—3	
Elec. T. 255 (A-C Machinery)	3—3—4	
Elec. T. 271 (Wiring Methods)	3—3—4	
Elec. T. 272 (Illumination)	2—3—3	
T. Eng. 231 (Tech. Writing)	3—0—3	
Total	16—12—20	
Sixth Quarter		
	C L T	
T. Draw. 231 (Elec. Drawing)	0—6—2	
Elec. T. 256 (A-C Machinery)	3—3—4	
Elec. T. 275 (Elec. Pow. Dist.)	5—0—5	
Elec. T. 276 (Elec. Cont. Syst.)	2—3—3	
T. Eng. 221 (Public Speaking)	3—0—3	
Ind. T. 243 (Business Law)	3—0—3	
Ind. T. 261 (Seminar)	1—0—1	
Total	17—12—21	

POSITIONS NOW HELD BY STI GRADUATES OF THE POWER OPTION

Graduates in the Power Option are prepared for placement opportunities in many phases of electrical contracting, electric utility operation, electrical equipment manufacturing, and electrical equipment sales and servicing. Electrical graduates are employed in the following positions:

Electrical Contractor (Company President)

Systems Engineer (Electrical)

Field Engineer

Engineering Technician

Electrical Estimator

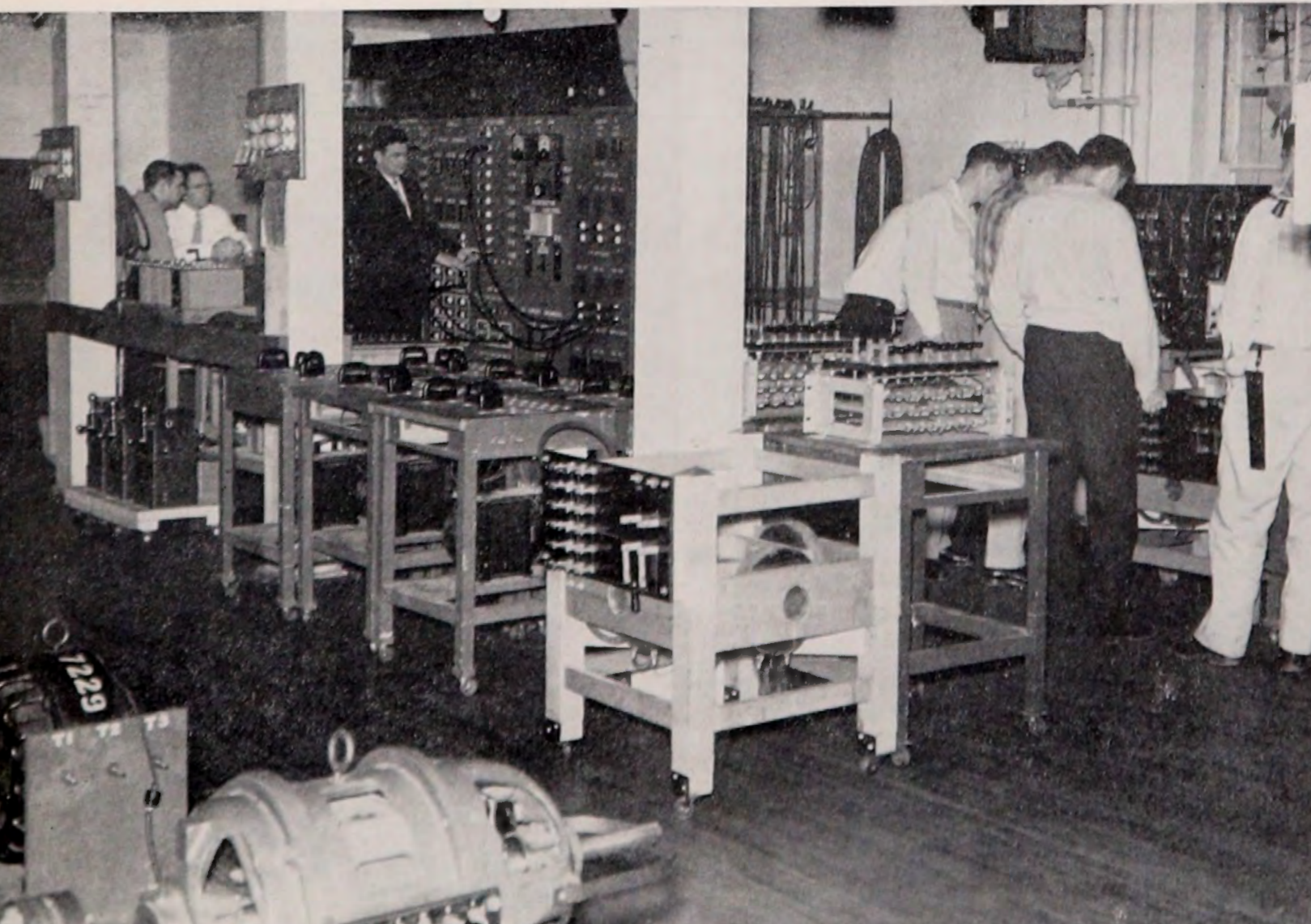
Staff Assistant

Junior Engineer (Electrical)

Training Specialist

Supervisor or Foreman (Electrical)

**Laboratories Are Indispensable in Confirming Technical
Principles and Theories**



ELECTRICAL TECHNOLOGY

ELECTRONICS OPTION

The curriculum of the Electronics Option was 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 Option 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 detailed 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. Draw. 111 (Tech. Draw. I)	0	6	2
Elec. T. 130 (Int. Elec. Tech.)	5	0	5
T. Eng. 111 (Comp. & Rhet.)	3	0	3
Ind. T. 111 (Human Relations)	3	0	3
T. Math. 111 (Algebra)	5	0	5
Total	16	6	18

Second Quarter

	C	L	T
Elec. T. 131 (Basic Electronics)	5	3	6
T. Eng. 112 (Comp. & Rhet.)	3	0	3
T. Math. 112 (Trig. & Analyt.)	5	0	5
T. Phys. 122 (Electricity)	5	3	6
Total	18	6	20

Third Quarter

	C	L	T
Elec. T. 121 (A-C Circuits)	5	3	6
Elec. T. 254 (Elec. Machinery)	2	3	3
T. Math. 113 (Applied Math.)	5	0	5
T. Phys. 121 (Mechanics)	5	3	6
Total	17	9	20

Fourth Quarter

	C	L	T
Elec. T. 122 (A-C Circuits)	5	3	6
Elec. T. 232 (Ind. Electronics)	5	3	6
Elec. T. 244 (Comm. Circuits)	3	3	4
T. Phys. 123 (Ht., Sound, Lt.)	3	3	4
Total	16	12	20

Fifth Quarter

	C	L	T
Elec. T. 234 (Adv. Electronics)	5	3	6
Elec. T. 242 (Comm. Circuits)	5	3	6
Elec. T. 265 (Comm. Tech.)	5	3	6
T. Eng. 231 (Tech. Writing)	3	0	3
Total	18	9	21

Sixth Quarter

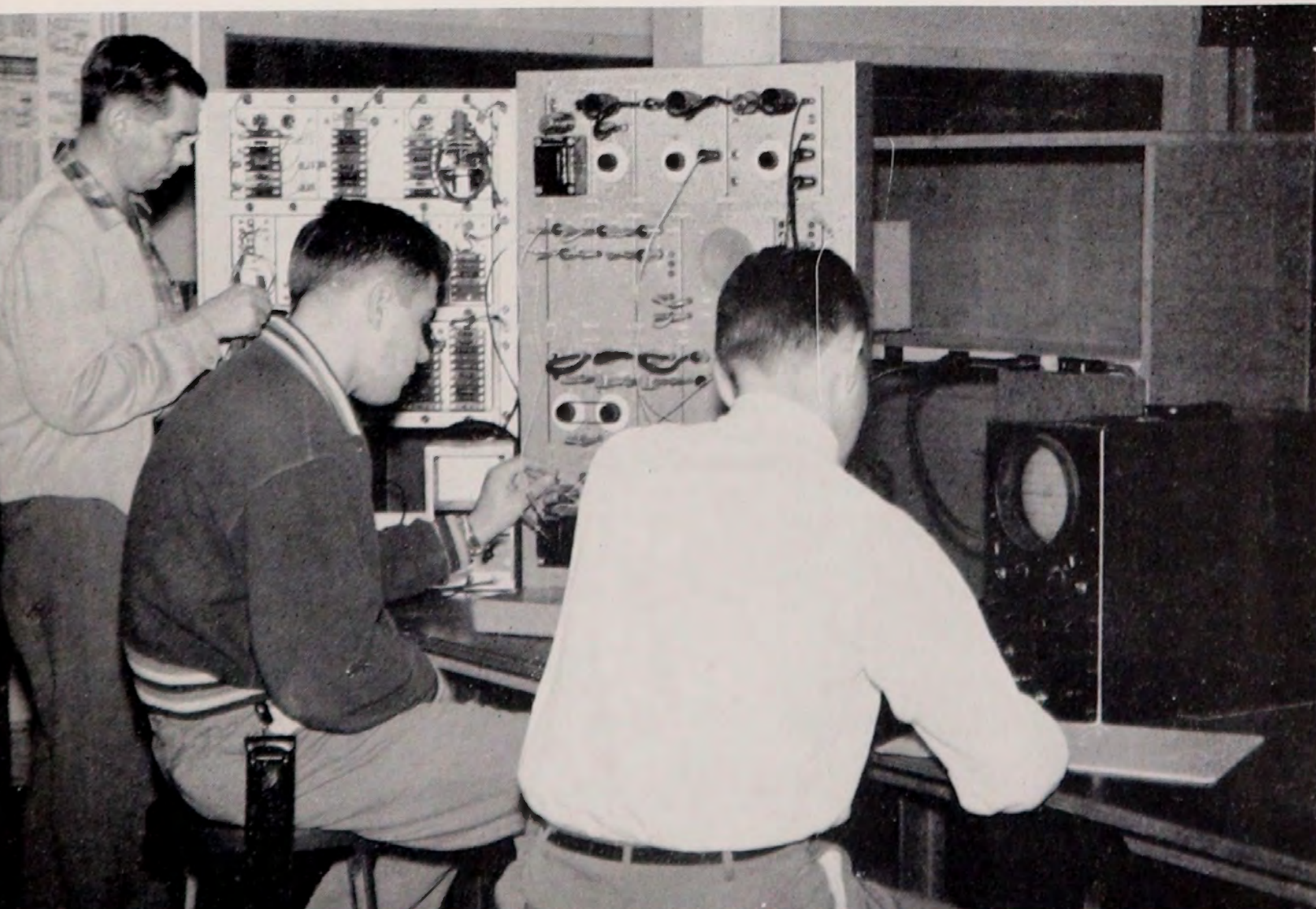
	C	L	T
Elec. T. 224 (A-C Circuits)	2	3	3
Elec. T. 243 (Comm. Circuits)	3	3	4
Elec. T. 262 (Comm. Tech.)	5	3	6
Elec. T. 266 (Television Tech.)	3	3	4
T. Eng. 221 (Public Speaking)	3	0	3
Ind. T. 261 (Seminar)	1	0	1
Total	17	12	21

POSITIONS NOW HELD BY STI GRADUATES IN THE ELECTRONICS OPTION

Graduates in the Electronics Option are employed in the following positions:

- X-Ray Service Engineer
- Research Assistant
- Field Engineer
- Electronics Laboratory Supervisor
- Training Officers (Electronics)
- Engineering Development Technician
- Laboratory Technician
- Electronics Engineering Technician
- Instrument Inspector
- Research Technician
- Maintenance Supervisor
- Field Service Technician
- Methods Engineer
- Systems Test Technician
- Product Design Technician
- Electrical Test Equipment Engineering Assistant

**Modern Laboratories Demonstrate Advanced Circuit Theory
and Instrumentation**



ELECTRICAL TECHNOLOGY

TELEPHONE OPTION

The Telephone Option is planned to provide (1) general training in the technical fields of mathematics, physics, and drawing; (2) general training in composition and rhetoric, personnel relations, contracts and specifications, industrial economics, technical writing, and public speaking; (3) specific training in electrical-circuit theory, basic electronics, radio and microwaves, central-office equipment, outside plant, traffic, carrier systems, and communications circuits.

Graduates in the Telephone Option should be able to fill responsible positions as maintenance technicians on inside and outside plant equipment, traffic technicians, toll-test technicians, production and installation technicians, and telephone equipment sales and service technicians.

A more detailed 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. Draw. 111 (Tech. Draw. I)	0—6—2	
Elec. T. 130 (Int. Elec. Tech.)	5—0—5	
T. Eng. 111 (Comp. & Rhet.)	3—0—3	
Ind. T. 111 (Human Relations)	3—0—3	
T. Math. 111 (Algebra)	5—0—5	
Total	16—6—18	
Second Quarter		
	C L T	
Elec. T. 131 (Basic Electronics)	5—3—6	
T. Eng. 112 (Comp. & Rhet.)	3—0—3	
T. Math. 112 (Trig. & Analyt.)	5—0—5	
T. Phys. 122 (Electricity)	5—3—6	
Total	18—6—20	
Third Quarter		
	C L T	
Civil T. 121 (Elem. Surveying)	3—9—6	
Elec. T. 121 (A-C Circuits)	5—3—6	
T. Eng. 231 (Tech. Writing)	3—0—3	
T. Phys. 121 (Mechanics)	5—3—6	
Total	16—15—21	
Fourth Quarter		
	C L T	
Elec. T. 122 (A-C Circuits)	5—3—6	
Elec. T. 244 (Comm. Circuits)	3—3—4	
Ind. T. 223 (Ind. Economics)	5—0—5	
T. Phys. 123 (Ht., Sound, Lt.)	3—3—4	
Total	16—9—19	
Fifth Quarter		
	C L T	
T. Draw. 231 (Elec. Drawing)	0—6—2	
Elec. T. 264 (Rad. & Microwv.)	3—3—4	
Elec. T. 291 (Dial C.O.E. Tech)	5—3—6	
Elec. T. 292 (Traffic Tech.)	3—0—3	
Elec. T. 293 (Outside Plant)	3—0—3	
Ind. T. 243 (Business Law)	3—0—3	
Total	17—12—21	
Sixth Quarter		
	C L T	
Elec. T. 294 (Carrier Systems)	5—3—6	
Elec. T. 295 (Interfer. & Prot.)	3—3—4	
Elec. T. 296 (Tel. Sys. Tech.)	5—3—6	
T. Eng. 221 (Public Speaking)	3—0—3	
Ind. T. 261 (Seminar)	1—0—1	
Total	17—9—20	

POSITIONS THAT THE TELEPHONE OPTION PREPARES FOR

Graduates in the Telephone Option are prepared for placement opportunities in many phases of telephone equipment manufacture, telephone company operation, and telephone equipment sales and service.

Production Supervisor

Carrier Equipment Installer, Technician

Mobile Telephone Technician

Telephone Junior Engineer

Research Technician, Communications

Telephone Microwave Technician

**Modern Telephone Equipment Is Used To Demonstrate
Application of Telephone Techniques**



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. 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.

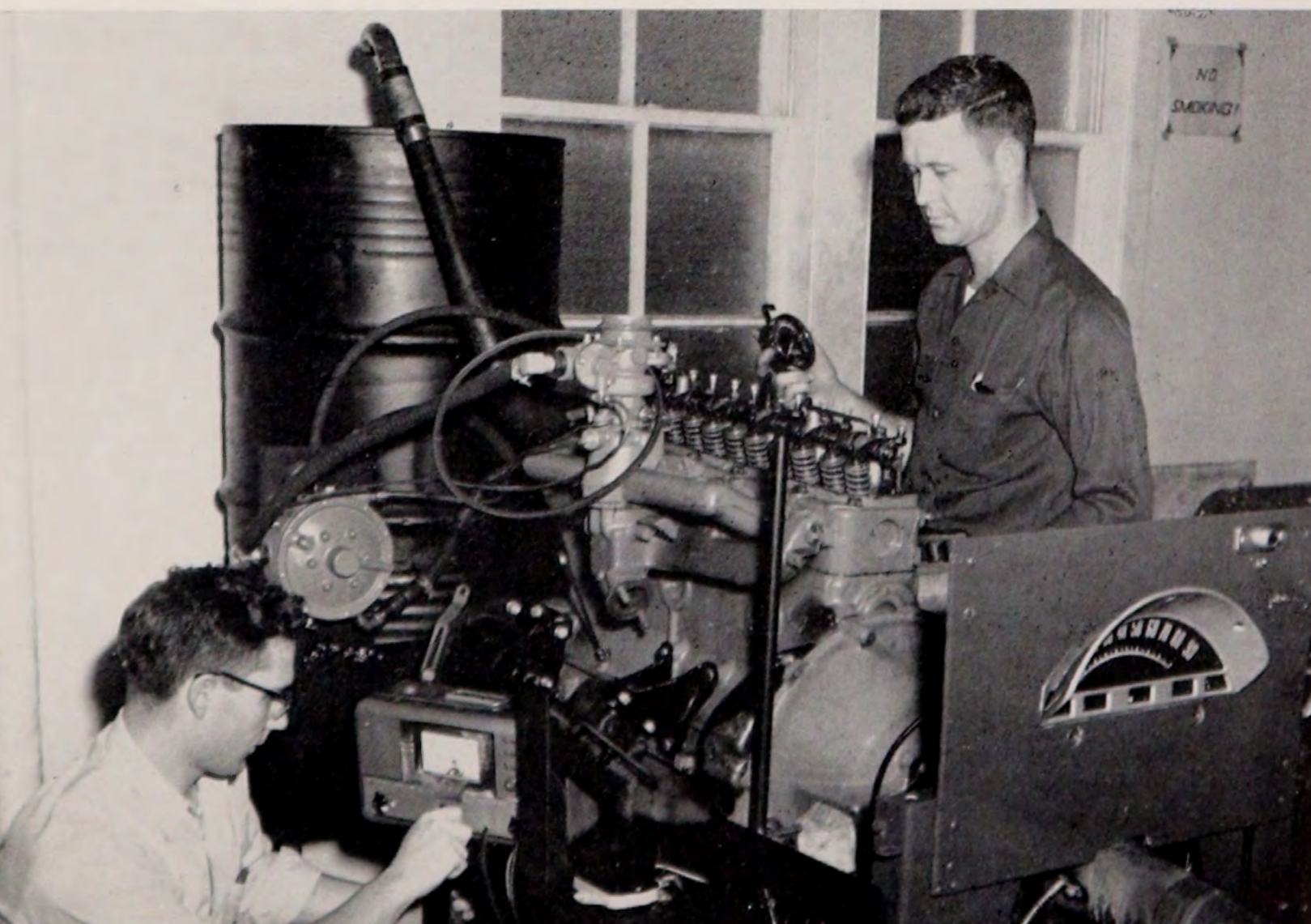
A more complete description of each subject is given in the back of this catalogue.

C L T: Class hours	Laboratory hours	Total quarter hours
First Quarter		
C L T		C L T
T. Chem. 112 (Gen. Chemistry) 5—3—6		T. Dr. 112 (Tech. Draw. II) 0—6—2
T. Dr. 111 (Tech. Drawing I) 0—6—2		T. Eng. 111 (Comp. & Rhet.) 3—0—3
Gas T. 111 (Gas Survey) 1—0—1		Gas T. 112 (Theory of Gases) 5—0—5
Ind. T. 111 (Human Relations) 3—0—3		T. Math. 112 (Trig., Analyt.) 5—0—5
T. Math. 111 (Algebra) 5—0—5		T. Phys. 121 (Mechanics) 5—3—6
Total 14—9—17		Total 18—9—21
Second Quarter		
C L T		C L T
Arch. T. 141 (Blueprint Read.) 3—0—3		Gas. T. 222 (Gas Util. II) 5—3—6
T. Eng. 112 (Comp. & Rhet.) 3—0—3		H&AC T. 221 (Air Cond. I) 5—3—6
Gas T. 121 (Gas Util. I) 3—3—4		Ind. T. 122 (Ind. Accounting) 1—3—2
Ind. T. 241 (Ind. Sales & Pur.) 2—0—2		T. Phys. 122 (Electricity) 5—3—6
Mech. T. 121 (Gen. Mtl. Shop) 0—6—2		Total 16—12—20
T. Phys. 123 (Ht., Sound, Lt.) 3—3—4		
Total 14—12—18		
Third Quarter		
C L T		C L T
T. Dr. 221 (Mach. Sketching) 0—6—2		T. Eng. 221 (Public Speaking) 3—0—3
T. Eng. 231 (Tech. Writing) 3—0—3		Gas T. 223 (Ind. Gas Util.) 5—3—6
Gas T. 224 (Gas Carburetion) 3—3—4		Gas T. 232 (Gas Equip. II) 3—3—4
Gas T. 231 (Gas Equip. I) 5—3—6		Ind. T. 213 (Supv. Training) 5—0—5
Ind. T. 242 (Small Bus. Mgt.) 3—0—3		Ind. T. 261 (Seminar) 1—0—1
Ind. T. 243 (Business Law) 3—0—3		Mech. T. 225 (Gen. Sht. Metal) 0—6—2
Total 17—12—21		Total 17—12—21
Fourth Quarter		
Fifth Quarter		
Sixth Quarter		

POSITIONS NOW HELD BY STI GRADUATES OF GAS FUEL

1. Servicing and Installation
 - a. Domestic gas systems and appliances
 - b. Commercial equipment and appliances
 - d. Carburetion installation and servicing
 - e. Job estimating
2. Sales
 - a. All types of gas equipment and appliances
 - b. Sales engineer with manufacturers and distributors
 - c. Sales engineer with petroleum producers and marketers
3. Distribution
 - a. Bulk plant construction, operation, and maintenance
 - b. Operation of distributing equipment
4. Supervision and Management
 - a. Plant foreman
 - b. Laboratory technician
 - c. Service manager
 - d. Service supervisor with appliance manufacturer
 - e. Training service personnel
 - f. Office manager
 - g. Sales manager
 - h. Purchasing agent
 - i. Junior measurement engineer

Gas Fuel Students Apply Some Principles in Gas Carburetion



HEATING & 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. 112 (Gen. Chemistry)	5	3	6
T. Dr. 111 (Tech. Drawing I)	0	6	2
Ind. T. 111 (Human Relations)	3	0	3
T. Math. 111 (Algebra)	5	0	5
Mech. T. 121 (Gen. Mtl. Shop)	0	6	2
Total	13	15	18

Second Quarter

	C	L	T
T. Dr. 112 (Tech. Drawing II)	0	6	2
T. Eng. 111 (Comp. & Rhet.)	3	0	3
Gas T. 112 (Theory of Gases)	5	0	5
T. Math. 112 (Trig., Analyt.)	5	0	5
T. Phys. 121 (Mechanics)	5	3	6
Total	18	9	21

Third Quarter

	C	L	T
Arch. T. 141 (Blueprint Read.)	3	0	3
T. Dr. 221 (Mach. Sketching)	0	6	2
Gas T. 121 (Gas Util. I)	3	3	4
H&AC 111 (Fuels & Burners)	5	0	5
T. Phys. 122 (Electricity)	5	3	6
Total	16	12	20

Fourth Quarter

	C	L	T
Elec. T. 281 (Ind. Electricity)	5	3	6
T. Eng. 112 (Comp. & Rhet.)	3	0	3
H&AC T. 221 (Air Cond. I)	5	3	6
T. Phys. 123 (Ht., Sound, Lt.)	3	3	4
Total	16	9	19

Fifth Quarter

	C	L	T
T. Eng. 231 (Tech. Writing)	3	0	3
H&AC T. 222 (Air Cond. II)	5	6	7
H&AC T. 231 (Refrigeration I)	3	3	4
Ind. T. 241 (Ind. Sales & Pur.)	2	0	2
Mech. T. 225 (Gen. Sht. Metal)	0	6	2
Total	13	15	18

Sixth Quarter

	C	L	T
T. Eng. 221 (Public Speaking)	3	0	3
H&AC T. 223 (Air. Cond. III)	5	6	7
H&AC T. 232 (Refriger. II)	3	3	4
Ind. T. 243 (Business Law)	3	0	3
Ind. T. 261 (Seminar)	1	0	1
Mech. T. 226 (Sht. M. Layout)	0	6	2
Total	15	15	20

POSITIONS NOW HELD BY STI GRADUATES OF HEATING & AIR CONDITIONING

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

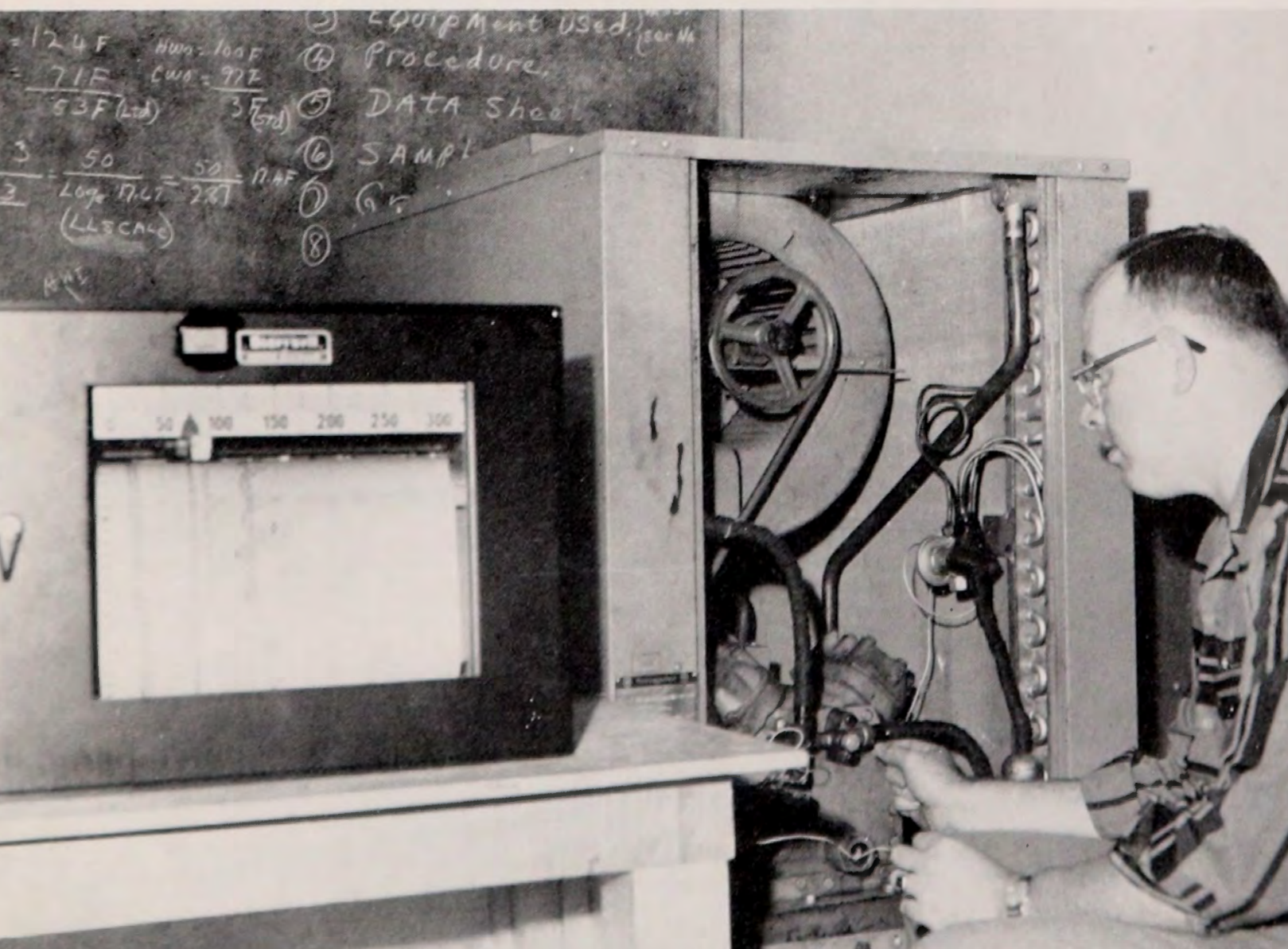
Refrigeration Mechanic

Service Engineer

Refrigeration Instructor

Laboratory Technician (Refrigeration)

**Testing Apparatus of All Kinds Plays a Major
Role in Heating, Air Conditioning, and Refrigeration**



INDUSTRIAL TECHNOLOGY

(See page 50 for the Management Option.)

The student in Industrial Technology is trained primarily for supervisory and management positions in the manufacturing industries. However, the very nature of the broad curriculum, stressing principles and practices of scientific management, enables a graduate to compete successfully for a variety of positions. These range from almost every phase of factory planning and operation to technical sales, positions with casualty and fire insurance companies that require knowledge of industrial safety, many staff department positions with transportation, distributing and utility companies, and to the operation of private business.

C L T: Class hours	Laboratory hours	Total quarter hours
First Quarter		
	C L T	
T. Chem. 112 (Gen. Chemistry)	5—3—6	
T. Dr. 111 (Tech. Draw. I)	0—6—2	
Ind. T. 111 (Human Relations)	3—0—3	
T. Math. 111 (Algebra)	5—0—5	
Mech. T. 111 (Tools, Methods)	5—0—5	
Total	18—9—21	
Second Quarter		
	C L T	
T. Dr. 112 (Tech. Draw. II)	0—6—2	
T. Eng. 111 (Comp. & Rhet.)	3—0—3	
T. Math. 112 (Trig., Analyt.)	5—0—5	
Mech. T. 121 (Gen. Mtl. Shop)	0—6—2	
T. Phys. 121 (Mechanics)	5—3—6	
Total	13—15—18	
Third Quarter		
	C L T	
T. Eng. 112 (Comp. & Rhet.)	3—0—3	
Ind. T. 122 (Ind. Accounting)	1—3—2	
Ind. T. 131 (Methods Imprvt.)	3—0—3	
Ind. T. 151 (Ind. Safety)	3—0—3	
Mech. T. 122 (Machine Shop)	0—6—2	
T. Phys. 122 (Electricity)	5—3—6	
Total	15—12—19	
Fourth Quarter		
	C L T	
T. Eng. 221 (Public Speaking)	3—0—3	
Ind. T. 223 (Ind. Economics)	5—0—5	
Ind. T. 232 (Mot., T. Study)	2—3—3	
Ind. T. 233 (Matls. Handling)	2—0—2	
Ind. T. 234 (Prod. Control)	3—0—3	
T. Phys. 123 (Ht., Sound, Lt.)	3—3—4	
Total	18—6—20	
Fifth Quarter		
	C L T	
T. Dr. 221 (Mach. Sketching)	0—6—2	
T. Eng. 231 (Tech. Writing)	3—0—3	
Ind. T. 212 (Labor Relations)	2—0—2	
Ind. T. 226 (Wage & Sal. Adm.)	3—0—3	
Ind. T. 235 (Quality Control)	2—0—2	
Ind. T. 241 (Ind. Sales & Pur.)	2—0—2	
Ind. T. 242 (Small Bus. Mgt.)	3—0—3	
Mech. T. 214 (Inspec. Meth.)	3—0—3	
Total	18—6—20	
Sixth Quarter		
	C L T	
Ind. T. 213 (Supv. Training)	5—0—5	
Ind. T. 225 (Cost Control)	2—0—2	
Ind. T. 236 (Plant Layout)	2—3—3	
Ind. T. 237 (Ind. Analy.)	0—6—2	
Ind. T. 243 (Business Law)	3—0—3	
Ind. T. 261 (Seminar)	1—0—1	
Mech. T. 215 (Jigs & Fixtures)	2—3—3	
Total	15—12—19	

POSITIONS NOW HELD BY STI GRADUATES OF INDUSTRIAL TECHNOLOGY

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

A Graphic Course Analysis Shows the IT Student Where He Is Headed

The graphic course analysis board for Industrial Technology is organized into several main sections:

- LEADERSHIP FUNDAMENTALS**
 - JOB INSTRUCTION
 - LABOR RELATIONS
 - SUPERVISORY TRAINING
 - CONFERENCE LEADING
 - INDUSTRIAL PSYCHOLOGY
 - BUSINESS LAW
 - HUMAN RELATIONS
 - PERSONNEL TRAINING
 - INDUSTRIAL ECONOMICS
 - DEPARTMENTAL MANAGEMENT
- SMALL BUSINESS MANAGEMENT**
- FOUNDATION COURSES**
 - MATH
 - PHYSICS
 - CHEMISTRY
 - PUBLIC SPEAKING
 - TECHNICAL WRITING
 - GRAMMAR & COMPOSITION
- INDUSTRIAL TECHNOLOGY**

Consists of:

 - MACHINE SHOP
 - JIGS AND FIXTURES
 - TECHNICAL DRAWING
 - TOOLS AND METHODS
 - GENERAL METAL SHOP
- TECHNICAL KNOW-HOW**
 - PLANT LAYOUT
 - INDUSTRIAL SALES
 - WAGE INCENTIVES
 - PRODUCTION CONTROL
 - METHODS IMPROVEMENT
 - JOB EVALUATION
 - QUALITY CONTROL
 - MOTION & TIME STUDY
 - INDUSTRIAL PURCHASING
 - PRODUCTION METHODS

INDUSTRIAL TECHNOLOGY MANAGEMENT OPTION

Upon the direct request of industry, Southern Tech has developed a curriculum called Industrial Technology—Management Option as a companion to the curriculum in Industrial Technology. The Management Option prepares the student more specifically for staff and administrative positions in technical fields, thereby filling an important need in industrial training.

Graduates who have earned their Associate in Science Degree in Industrial Technology have already made outstanding records in industry. The positions for which they have qualified are shown on page 53. Similarly responsible positions in the technical phases of staff and administrative work should await those who elect this new program, Industrial Technology—Management Option. The Management Option will offer more extensive training in the personnel functions listed.

The attached curriculum shows the subject titles for Industrial Technology—Management Option.

C	L	T:	Class hours	Laboratory hours	Total quarter hours
First Quarter					
	C	L	T		
T. Dr. 111 (Tech. Draw. I)	0	6	2		
T. Eng. 111 (Comp. & Rhet.)	3	0	3		
Ind. T. 111 (Human Relations)	3	0	3		
Ind. T. 131 (Methods Impvt.)	3	0	3		
Ind. T. 151 (Ind. Safety I)	3	0	3		
T. Math. 111 (Tech. Algebra)	5	0	5		
Total	17	6	19		
Second Quarter					
	C	L	T		
T. Dr. 112 (Tech. Draw. II)	0	6	2		
T. Eng. 112 (Comp. & Rhet.)	3	0	3		
Ind. T. 122 (Ind. Acct.)	1	3	2		
Ind. T. 154 (Ind. Safety II)	3	0	3		
Ind. T. 232 (Mot. & T. Study)	2	3	3		
T. Math. 112 (Trig., Analyt.)	5	0	5		
Total	14	12	18		
Third Quarter					
	C	L	T		
T. Eng. 221 (Public Speaking)	3	0	3		
Ind. T. 114 (Basic Ind. Psych.)	3	0	3		
Ind. T. 115 (Labor Mgmt.)	2	0	2		
Ind. T. 116 (Org. & Mgmt.)	3	0	3		
Ind. T. 117 (Per. Training)	2	0	2		
Ind. T. 225 (Cost Control)	2	0	2		
T. Phys. 122 (Electricity)	5	3	6		
Total	20	3	21		
Fourth Quarter					
	C	L	T		
T. Dr. 221 (Machine Sketch.)	0	6	2		
T. Eng. 231 (Tech. Writing)	3	0	3		
Ind. T. 212 (Labor Relations)	2	0	2		
Ind. T. 213 (Supv. Train.)	5	0	5		
Mech. T. 121 (Gen. Mtl. Shop)	0	6	2		
T. Phys. 121 (Mechanics)	5	3	6		
Total	15	15	20		
Fifth Quarter					
	C	L	T		
Ind. T. 235 (Qual. Cont.)	2	0	2		
Ind. T. 243 (Business Law)	3	0	3		
Mech. T. 111 (Tools & Meths.)	5	0	5		
Mech. T. 122 (Mach. Shop I)	0	6	2		
Mech. T. 214 (Inspec. Meths.)	3	0	3		
T. Phys. 123 (Heat, Sd., Lgt.)	3	3	4		
Total	16	9	19		
Sixth Quarter					
	C	L	T		
Ind. T. 223 (Ind. Econs.)	5	0	5		
Ind. T. 226 (Wage & Sal. Adm.)	3	0	3		
Ind. T. 233 (Matr. Handling)	2	0	2		
Ind. T. 234 (Prod. Control)	3	0	3		
Ind. T. 236 (Plant Layout)	2	3	3		
Mech. T. 215 (Jigs & Fix.)	2	3	3		
Total	17	6	19		



Materials of Many Profitable Lab Sessions in Industrial Technology



Human Relations Is Basic and Vital to Both Options in Industrial Technology

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. 111 (Tech. Draw. I).....	0	6	2
T. Eng. 111 (Comp. & Rhet.) ..	3	0	3
Ind. T. 111 (Human Relations) ..	3	0	3
T. Math. 111 (Algebra).....	5	0	5
Mech. T. 111 (Tools, Methods) ..	5	0	5
Mech. T. 121 (Gen. Mtl. Shop) ..	0	6	2
Total	16	12	20

Second Quarter

	C	L	T
T. Dr. 112 (Tech. Draw. II)....	0	6	2
T. Eng. 112 (Comp. & Rhet.) ..	3	0	3
T. Math. 112 (Trig., Analyt.) ..	5	0	5
Mech. T. 122 (Machine Shop I) ..	0	6	2
T. Phys. 121 (Mechanics).....	5	3	6
Total	13	15	18

Third Quarter

	C	L	T
Ind. T. 131 (Methods Impvt.)..	3	0	3
Ind. T. 151 (Ind. Safety).....	3	0	3
Mech. T. 112 (Met. Heat Tr.)..	3	0	3
Mech. T. 123 (Mach. Shop II) ..	0	6	2
Mech. T. 131 (Gen. Woodwrk.) ..	0	6	2
T. Phys. 122 (Electricity).....	5	3	6
Total	14	15	19

Fourth Quarter

	C	L	T
Civil T. 112 (Mech. of Mat.)..	5	3	6
T. Eng. 221 (Pub. Speaking)....	3	0	3
Ind. T. 232 (Mot., T. Study)....	2	3	3
Mech. T. 232 (Pat. Making)....	0	6	2
T. Phys. 123 (Ht., Sound, Lt.) ..	3	3	4
Total	13	15	18

Fifth Quarter

	C	L	T
T. Dr. 221 (Mach. Sketching) ..	0	6	2
Elec. T. 281 (Ind. Electricity) ..	5	3	6
T. Eng. 231 (Tech. Writing)....	3	0	3
Ind. T. 241 (Ind. Sales & Pur.) ..	2	0	2
Mech. T. 214 (Inspec. Methods) ..	3	0	3
Mech. T. 224 (Welding).....	0	6	2
Total	13	15	18

Sixth Quarter

	C	L	T
T. Dr. 222 (Machine Draw.)....	0	6	2
Ind. T. 213 (Supv. Training)....	5	0	5
Ind. T. 236 (Plant Layout).....	2	3	3
Ind. T. 243 (Business Law).....	3	0	3
Ind. T. 261 (Seminar).....	1	0	1
Mech. T. 215 (Jigs & Fixtures) ..	2	3	3
Mech. T. 225 (Gen. Sht. Metal) ..	0	6	2
Total	13	18	19

POSITIONS NOW HELD BY STI GRADUATES
OF MECHANICAL TECHNOLOGY

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
Tool Designer
Time Study Engineer
Production Supervisor
Turbine Installation Supervisor

A Student Makes a Test on the Hardness of Steel



TEXTILE TECHNOLOGY

The course in Textile Technology fills the great need of Georgia's and the South's largest industry, textile manufacturing. The student is trained in the four areas common to all Southern Tech technicians. The first three—communication, basic sciences, and supervisory abilities—make of him a well-rounded individual who will be able to work out problems of a theoretical or practical nature, and to report on them in a convincing and understandable manner. He will also be able to supervise people effectively.

In the fourth area, Textiles, the student will be given a broad program of courses in textile manufacturing which will give him as complete knowledge and understanding as possible of the raw materials, the machinery, fabric analysis, designing, manufacturing, and finishing all types of textile fabric. These courses will be taught by the faculty of the A. French Textile School of Georgia Tech using the modern pilot plant and equipment there for laboratory work. A graduate of this department will be a valuable addition to any manufacturing plant.

C L T: Class hours Laboratory hours Total quarter hours

First Quarter

	C	L	T
T. Chem. 112 (Gen. Chemistry)	5	3	6
Ind. T. 111 (Human Relations)	3	0	3
T. Math. 111 (Algebra)	5	0	5
Tex. T. 111 (Raw Materials)	3	0	3
Tex. T. 121 (Open, Pick, Card)	3	3	4
Total	19	6	21

Second Quarter

	C	L	T
T. Phys. 121 (Mechanics)	5	3	6
T. Math. 112 (Trig., Analyt.)	5	0	5
Tex. T. 122 (Dr., Comb., Proc.)	3	3	4
T. Eng. 111 (Comp. & Rhet.)	3	0	3
Total	16	6	18

Third Quarter

	C	L	T
T. Eng. 112 (Comp. & Rhet.)	3	0	3
Ind. T. 151 (Ind. Safety)	3	0	3
T. Phys. 122 (Electricity)	5	3	6
Tex. T. 123 (Yarn Manufact.)	3	3	4
Tex. T. 162 (Tex.Chem.&Dye.)	3	0	3
Total	17	6	19

Fourth Quarter

	C	L	T
Elec. T. 281 (Ind. Electricity)	5	3	6
Ind. T. 131 (Methods Impvt.)	3	0	3
T. Phys. 123 (Heat, Sound, Lt.)	3	3	4
Tex. T. 231 (Weaving)	3	3	4
Tex. T. 241 (Fabric Design)	3	0	3
Total	17	9	20

Fifth Quarter

	C	L	T
H&AC T. 241 (Air C. & Ref.)	5	3	6
Ind. T. 122 (Ind. Accounting)	1	3	2
Ind. T. 232 (Mot. & T. Study)	2	3	3
Ind. T. 234 (Prod. Control)	3	0	3
Tex. T. 232 (Warp Preparation)	3	0	3
Tex. T. 251 (Textile Costing)	3	0	3
Total	17	9	20

Sixth Quarter

	C	L	T
T. Eng. 221 (Public Speaking)	3	0	3
T. Eng. 231 (Tech. Writing)	3	0	3
Ind. T. 213 (Supv. Training)	5	0	5
Ind. T. 235 (Quality Control)	2	0	2
Tex. T. 242 (Fabric Analysis)	2	3	3
Tex. T. 243 (Standard Fabrics)	3	0	3
Tex. T. 244 (Phys. Testing)	0	6	2
Total	18	9	21

POSITIONS TEXTILE TECHNOLOGY GRADUATES ARE PREPARED FOR

The course in Textile Technology is broad enough to prepare a graduate to fit himself into any phase of the textile industry when he has attained the necessary practical experience. Some of the titles of jobs open to him are

Assistant Foreman

Foreman or Overseer

Fabric Designer

Production Control or

Standards Department Technician

Personnel Manager

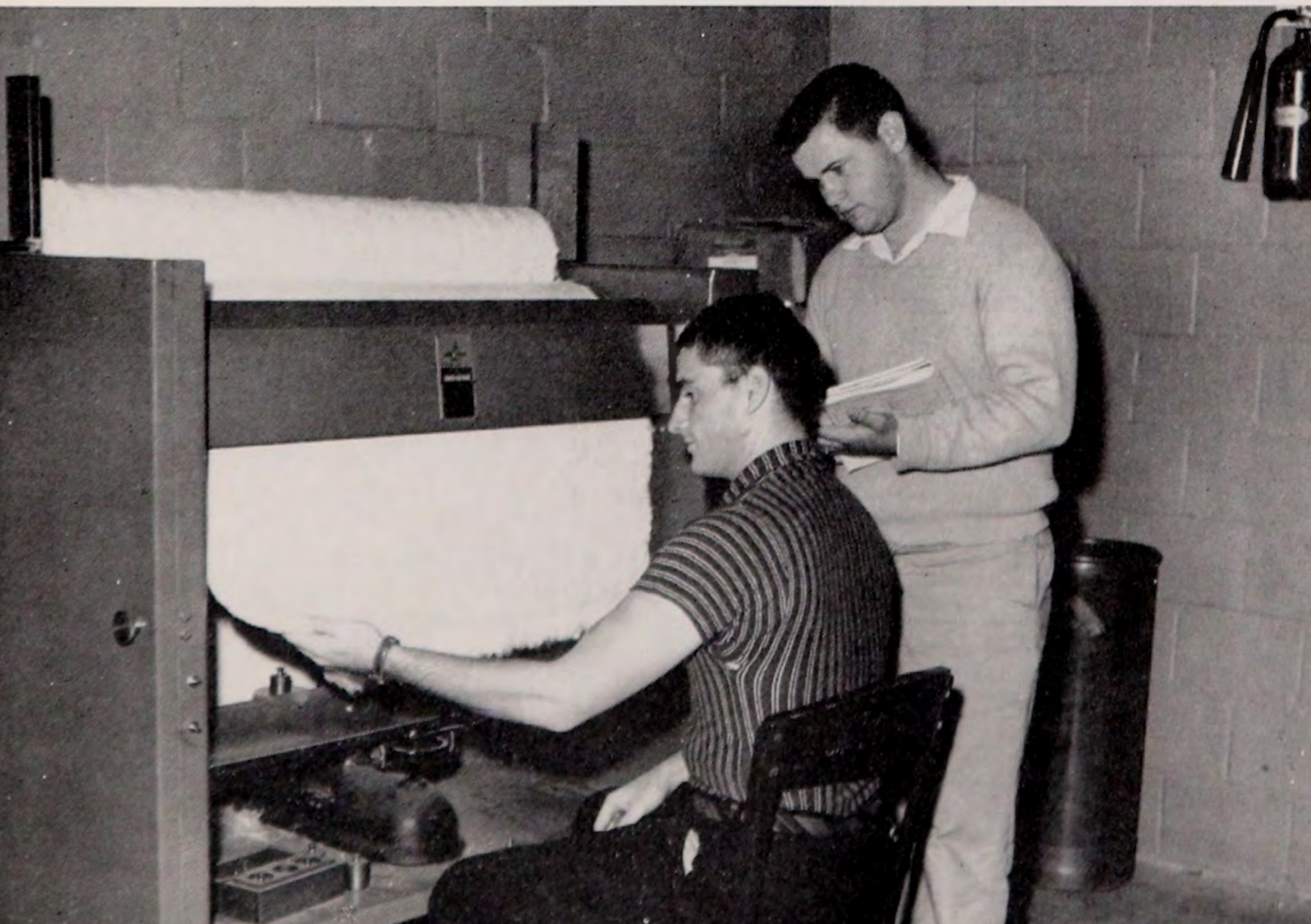
Machinery Manufacturer Salesman

Erector or Service Man

Testing Technician in Physical Laboratories

Dyer or Cloth Finisher

Southern Tech Students Using the Lap Meter in the Laboratory at Georgia Tech



THE CO-OPERATIVE PLAN AT SOUTHERN TECHNICAL INSTITUTE

To provide financial aid for the student and to give him practical experience in industry, the Southern Technical Institute offers a school-sponsored Co-operative Plan in two of its eleven curricula—Civil and Textile Technologies. The Co-op Plan operates on a program of alternating school and work quarters over a period of thirty-three months. Thus the student completes six quarters of schooling and five quarters in industry.

To qualify for the Co-op Plan, the student must (1) be physically sound, (2) be seventeen years old and approaching his eighteenth birthday, (3) meet all STI scholastic entrance requirements, and (4) complete an assigned quarter of study at Southern Tech with no failures and at least a "C" average. Having achieved these, he is eligible to enter his first quarter of work in industry. To remain on the Co-op Plan, the student must continue to achieve a "C" average. Should he be dropped from the program or withdraw from it voluntarily, he is not eligible for reinstatement as a Co-op student. Also, as would be expected, he must perform his work to the satisfaction of his employer if he is to remain on the Co-op Plan.

Qualified students may enter the Co-op program at the beginning of the summer and the fall quarters only. Applicants may specify the quarter they wish to enroll; however, because each student must have an alternate, Southern Tech may accept them for a quarter other than that of their first preference.

Tuition, fees, and other expenses are the same for Co-operative students per quarter of attendance as for regular students. Every effort will be made to find satisfactory employment for the student in or near his home town so that he can profit from the savings effected through living at home.

At present a large number of Civil Technology students are enjoying the benefits of the Co-op Plan worked out in the summer of 1957 between the Southern Technical Institute and the State Highway Department of Georgia. Civil Technology students who have met all physical and scholastic requirements are placed on jobs with the Highway Department at a beginning salary of \$240 per month. As they become more valuable to their employer, they are given progressive increases.

Southern Tech expects to offer the Co-op program in other fields as the need arises.

Additional information about Southern Tech's Co-op Plan may be obtained by writing

Coordinator of Co-operative Courses
Southern Technical Institute
Chamblee, Georgia

SUBJECT DESCRIPTIONS

BUILDING CONSTRUCTION TECHNOLOGY

Arch. T. 121—GRAPHICS 3—9—6

Prerequisite—T. Drawing 111 Orvold

An introductory study in architectural drawing and in the principles of visual design. This subject equips the student with a basic knowledge of drawing sections, plans, perspective, and presentation drawing in ink.

Text: Ramsey and Sleeper, *Architectural Graphic Standards*.

Arch. T. 141—BLUEPRINT READING

3—0—3

Prerequisite—None Muller

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.

Text: Dalzell, *Blue Print Reading for the Building Trades*. Vols. 1, 2.

Arch. T. 142—BUILDING MATERIALS

3—0—3

Prerequisite—None Orvold

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.

Text: Gay and Parker, *Materials and Methods of Architectural Construction*.

Arch. T. 211—WOOD AND STEEL CONSTRUCTION

3—6—5

Prerequisites—Civil T. 112 and Civil T. 111 Vaughn

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.

Texts: Parker, *Simplified Design of Structural Timber*. AISC Handbook, *Steel Construction Manual*.

Arch. T. 212—CONCRETE CONSTRUCTION

3—6—5

Prerequisite—Civil T. 112 Vaughn

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 computations involving various concrete members.

Texts: Boguslavsky, *Design of Reinforced Concrete*. ACI, *Reinforced Concrete Design Handbook*.

Arch. T. 222—BUILDING DESIGN

3—12—7

Prerequisites—Arch. T. 121 and Arch. T. 142 Orvold

Residential design. This subject requires of each student a complete presentation drawing, a complete set of working drawings, and a complete set of specifications for a dwelling house. Scale models will be built from working drawings by groups of students.

Text: Dietz, *Dwelling House Construction*.

Arch. T. 223—BUILDING DESIGN

3—9—6

Prerequisites—Arch. T. 222, Arch. T. 211 or concurrently

Architectural design, working and structural drawings of more complex structures than those studied in Arch. T. 222. Structural computations are required.

Vaughn

Texts: Same as for Arch. T. 121 and Arch. T. 222.

Arch. T. 224—BUILDING DESIGN

3—9—6

Prerequisite—Arch. T. 223 Vaughn

A continuation of Arch. T. 223 with the necessary working and structural drawings. More complex structures than those in Arch. T. 223 are studied and a small scale model is required.

Texts: Same as for Arch. T. 223

Arch. T. 231—ARCHITECTURAL HISTORY

3—0—3

Prerequisite—None Orvold

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.

Text: Hamlin, *A History of Architecture*.

Arch. T. 243—BUILDING EQUIPMENT

3—0—3

Prerequisite—T. Phys. 123 Vaughn

A brief survey of the principles of heating, ventilating, plumbing, air conditioning, lighting and electrical wiring of buildings from the construction viewpoint. Text: Gay and Fawcett, *Mechanical and Electrical Equipment of Buildings*.

Arch. T. 244—COSTS AND ESTIMATES

3—3—4

Prerequisite—Arch. T. 142 Orvold

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

Text: Pulver, *Construction Estimates and Costs*.**CHEMISTRY, TECHNICAL****T. Chemistry 112—GENERAL****CHEMISTRY** 5—3—6

A survey of general chemistry with the emphasis on inorganic. Laboratory exercises parallel and supplement the work in the classroom. Crawford

Texts: Holmes, *Introductory College Chemistry*, 5th Ed. Ritter, *An Introductory Laboratory Course in Chemistry*, 1st Ed.**CIVIL TECHNOLOGY****Civil T. 111—GRAPHIC STATICS**

0—3—1

Prerequisite—To be taken concurrently with T. Phys. 121

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

Holladay

Text: Holladay, *Graphic Statics*.**Civil T. 112—MECHANICS OF****MATERIALS** 5—3—6

Prerequisites—T. Phys. 121 and T. Math. 112 Myatt

A study of coplanar forces and force systems, truss solutions, force systems in space, friction and centroids; direct stress, properties of materials, riveted and welded joints, torsion, stresses in beams, beam deflections, and columns.

Text: Lisarelli, *Essential Strength of Materials*.**Civil T. 121—ELEMENTARY****SURVEYING** 3—9—6

Prerequisite—To be taken concurrently with T. Math. 112

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. Reese

Text: Legault, McMartin, and Marlette, *Surveying*.**Civil T. 122—ROUTE SURVEYING**

3—6—5

Prerequisite—Civil T. 121 Holladay

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; super-elevation of curves; computation of earthwork; construction of quantity, haul and mass diagrams. For a final project each student laboratory group must lay out a complete highway location with each student submitting a complete set of plans, profiles, cross sections and earthwork computations for this location.

Text: Skelton, *Route Surveys*.**Civil T. 131—HIGHWAY****CONSTRUCTION** 3—0—3

Prerequisite—Civil T. 122 or concurrently Holladay

A study of highway location, grading, drainage, surfacing, maintenance, and administration.

Text: Bruce and Clarkeson, *Highway Design and Construction*.**Civil T. 212—STRUCTURAL****DRAFTING** 0—6—2

Prerequisite—T. Drawing 111 Myatt

A study of the required structural steel plans for buildings and the preparation of the shop details from those plans. Given the structural design for a building, the student prepares both the structural plans necessary for construction and the shop details for each steel member in the structure.

Texts: AISC, *Steel Construction Manual*. AISC, *Structural Shop Drafting*, Vol. I. Ketchum, *Handbook of Structural Details for Buildings*.**Civil T. 213—STRUCTURAL****DRAFTING** 0—6—2

Prerequisite—T. Drawing 111 Myatt

A study of the various types of concrete floor systems and the preparation of working drawings for the concrete members of a structure. As a term project the student is given the design for a multi-story concrete building from which he prepares the structural plans and the shop details and placing drawing for the reinforcing steel.

Text: ACI, *Manual of Standard Practice for Detailing Reinforced Concrete Structures*. Ketchum, *Handbook of Structural Details for Buildings*.

Civil T. 214—MATERIALS TESTING

1—3—2

The testing of aggregates, cement, and concrete. Concrete mix design. Simple soils testing.

Text: P.C.A., *Design and Control of Concrete Mixtures*.

Civil T. 223—LAND SURVEYS

3—6—5

Prerequisite—Civil T. 121 Holladay

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 azimuth determination; Georgia Land Lot System of land subdivision.

Text: Rubey, Lommel, and Todd, *Engineering Surveys—Elementary and Applied*.

Civil T. 224—TOPOGRAPHIC AND CONTOUR SURVEYING

2—6—4

Prerequisite—Civil T. 121 Holladay

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; theory, description and purposes of the many types of maps, plans and profiles used by engineers; hydrographic surveying; altimetry; optical-type instruments.

Text: Same as for Civil T. 223.

Civil T. 232—HEAVY**CONSTRUCTION** 3—3—4

Prerequisite—Arch. T. 142 Holladay

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.

Text: Peurifoy, *Construction Planning, Equipment, and Methods*.

Civil T. 241—HYDRAULICS

5—0—5

Prerequisite—T. Phy. 121 and Civil T. 112 Myatt

Elementary principles of hydraulics with special emphasis on static pressures, flow through pipes, channels, and over weirs.

Text: Powell, *Hydraulics and Fluid Mechanics*.

Civil T. 242—WATER AND SEWAGE PLANT OPERATION

3—0—3

Prerequisite—Civil T. 241 or concurrently Myatt

A study of operation of water and sewage treatment plants and the tests made in these plants.

Text: Steel, *Water Supply and Sewerage*.

Civil T. 251—PHOTOGRAMMETRY

0—6—2

Prerequisite—Civil T. 121 and Civil T. 224 Holladay

The preparation of maps and charts from aerial photographs by Stereoscopic and ground surveying methods. Specifications and requirements for aerial surveys.

Text: Same as for Civil T. 224.

DRAWING, TECHNICAL**T. Dr. 111—TECHNICAL DRAWING I**

0—6—2

Introduction to drawing, use of instruments, lettering, geometric construction, orthographic projection, auxiliary views, dimensioning, and drawing conventions.

Muller

Text: French and Vierck, *Engineering Drawing*, 8th Ed.

T. Dr. 112—TECHNICAL DRAWING II

0—6—2

Prerequisite—T. Dr. 111 Muller

Continuation of topics introduced in Technical Drawing 111, plus threads and fasteners, sectioning, conventional representation, working drawings, and ink tracings.

Text: French and Vierck, *Engineering Drawing*, 8th Ed.

T. Dr. 221—MACHINE SKETCHING

0—6—2

Prerequisite—T. Dr. 112 Muller

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.

Text: French and Vierck, *Engineering Drawing*, 8th Ed.

T. Dr. 222—MACHINE DRAWING

0—6—2

Prerequisite—T. Dr. 112 Lockwood

Study of gears, cams, and complete

assembly drawings of a small machine, together with manufacturing specifications.

Text: French and Vierck, *Engineering Drawing*, 8th Ed.

T. Dr. 231—ELECTRICAL DRAWING
0—6—2

Prerequisites—T. Dr. 111, Elec. T. 122

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.

Text: Bishop, *Electrical Drafting and Design*, 3rd Ed.

ELECTRICAL TECHNOLOGY

Elec. T. 121—ALTERNATING-CURRENT CIRCUITS 5—3—6

Prerequisites—T. Math. 111, T. Phys. 122, Elec. T. 130
Edwards

Fundamentals of alternating-current theory and practice as applied to single-phase circuits. Properties of resistance, inductance, and capacitance. Resistance networks. Thevenin's theorem as applied to resistance networks. Generation of alternating emf's and elementary wave-shape analysis. Reactance, impedance, and phase relations in series and parallel circuits. Resonant circuits. Complex notation, vector analysis, and use of the slide rule.

Text: Siskind, *Electrical Circuits, Direct and Alternating Current*.

Elec. T. 122—ALTERNATING-CURRENT CIRCUITS 5—3—6

Prerequisites—Elec. T. 121, T. Math. 112
Carter

Advanced alternating-current theory and practice as applied to single-phase circuits. Further analysis of series and parallel circuits using complex notation and vector analysis. Admittance, conductance, and susceptance. Anti-resonant circuits. Coupled-circuit theory, impedance transformation, transformer theory, mutual inductance, and reflected impedance. Thevenin's theorem as applied to complex circuits. Construction, classification, regulation, loss determination, and efficiency of single-phase transformers. Per-unit method of calculation.

Text: Siskind, *Electrical Circuits, Direct and Alternating Current*. Siskind, *Electrical Machines, Direct and Alternating Current*.

Elec. T. 130—INTRODUCTION TO ELECTRICAL TECHNOLOGY

5—0—5

Prerequisites—T. Math. 111 or concurrently

An introduction to the principles of electricity, concepts of emf, charge, current, resistivity, emission, high-vacuum diodes, rectification, gas diodes, principles of semi-conductor materials, and semi-conductor diodes.

Burton

Text: Timbie, *Basic Electricity for Communications*.

Elec. T. 131—BASIC ELECTRONICS

5—3—6

Prerequisite—Elec. T. 130
Cowan

Basic study of the control of free electrons in elementary electronic circuits. Electron emission, classification and characteristics of high-vacuum tubes, tube characteristic curves. Rectification, amplification, amplification factor, trans-conductance, plate resistance, load lines, stage gain, and basic amplifier circuits. Types of bias. Classification and characteristics of gas-filled, vapor-filled, and cathode-ray tubes. Hard-tube and soft-tube voltage regulator circuits. Conversion efficiency, ripple factor, and circuit analysis of single-phase half-wave, full-wave, and bridge rectifier circuits.

Texts: Slurzberg and Osterheld, *Essentials of Radio*. RCA *Receiving Tube Manual*.

Elec. T. 224—ALTERNATING-CURRENT CIRCUITS 2—3—3

Prerequisites—Elec. T. 122, T. Math. 113
Carter

Study of polyphase circuits, balanced and unbalanced, including circuit analysis, distribution systems, transformers and transformer connections, rectifier circuits, and instrumentation.

Text: Siskind, *Electrical Circuits, Direct and Alternating Current*.

Elec. T. 232—INDUSTRIAL ELECTRONICS 5—3—6

Prerequisites—Elec. T. 121, Elec. T. 131

Study of basic industrial electronic circuits and application of these circuits to such devices as electronic timers, voltage regulators, electrostatic air cleaners, motor and generator control systems, web and register control systems, photo-electric systems, and induction and dielectric heating equipment.

Youngblood

Text: Chute, *Electronics in Industry*.

Elec. T. 234—ADVANCED ELECTRONICS 5—3—6

Prerequisite—Elec. T. 232 Youngblood

Study of special electronic circuits, including special amplifier and oscillator circuits, non-sinusoidal wave generators, pulsing circuits, clamping, advanced study of transients, transistor principles and circuitry, switching and relay circuits, and servo-mechanisms.

Text: Naviships, *Radar Electronics Fundamentals*.

Elec. T. 242—COMMUNICATIONS CIRCUITS 5—3—6

Prerequisite—Elec. T. 122 Allen

High-frequency transmission line concepts and practical applications. Impedance-matching concepts and methods, transmission-line circle diagram, propagation, standing waves, basic antenna theory, antennas for low-frequency and high-frequency applications, and high-frequency measuring techniques.

Text: Welch, *Wave Propagation and Antennas*.

Elec. T. 243—COMMUNICATIONS CIRCUITS 3—3—4

Prerequisites—Elec. T. 234, Elec. T. 242 Allen

Microwave techniques, theory and practice in pulse circuits, ultra-high-frequency amplifiers, transit-time effects, wave guides and cavity resonators, dynatrons, transitrons, klystrons, and magnetrons. Principles of radar, types of scan, radar transmitting and receiving systems, synchronization, and specific study of ASC-1 and APS-3 radar systems.

Text: Naviships, *Radar Systems Fundamentals*.

Elec. T. 244—COMMUNICATIONS CIRCUITS 3—3—4

Prerequisites—Elec. T. 122, Elec. T. 131 Allen

Study of the operating principles of telephone equipment and circuits, basic relay circuits for digital control, matched transmission lines for audio frequencies, distributed and lumped constants, pads and attenuators, constant-k and m-derived filters for low-pass, high-pass, and band elimination. "Pi," "T," and "L" sections. Text: Albert, *Fundamentals of Telephony*.

Elec. T. 251—DIRECT-CURRENT MACHINERY 3—3—4

Prerequisite—Elec. T. 121 or concurrently Meintzer

Construction, characteristics, operation

and control, and industrial applications of direct-current motors and generators. Electrical and mechanical characteristics of the various standard forms of field and armature windings.

Text: Siskind, *Electrical Machines, Direct and Alternating Current*.

Elec. T. 254—ELECTRICAL MACHINERY 2—3—3

Prerequisite—Elec. T. 121 or concurrently Meintzer

Survey of electrical rotating machines, direct and alternating current. Construction, characteristics, operation and control, and industrial applications of d-c, single-phase a-c, and polyphase a-c motors and generators.

Text: Siskind, *Electrical Machines, Direct and Alternating Current*.

Elec. T. 255—ALTERNATING-CURRENT MACHINERY 3—3—4

Prerequisites—Elec. T. 122, Elec. T. 251 Hamrick

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

Text: Siskind, *Electrical Machines, Direct and Alternating Current*.

Elec. T. 256—ALTERNATING-CURRENT MACHINERY 3—3—4

Prerequisites—Elec. T. 122, Elec. T. 251 Hamrick

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

Text: Siskind, *Electrical Machines, Direct and Alternating Current*.

Elec. T. 262—COMMUNICATIONS TECHNOLOGY 5—3—6

Prerequisite—Elec. T. 234 Goodwin

Advanced study of radio communication circuits. Amplitude-modulated transmitters, power amplifiers, phase inverters, push-pull amplifiers, and modulator circuits. Broadcast studio techniques, recorders and recording, and control-room equipment.

Text: Marcus and Levy, *Elements of Radio Servicing*.

Elec. T. 264—RADIO AND MICROWAVES 3—3—4

Prerequisite—Elec. T. 244

A survey course to introduce the principles of radio communications, and the use of microwave techniques in communications systems. This course includes the

use of amplitude and frequency modulation in radio communications transmitters. A brief treatment of the material currently covered in existing courses, Elec. T. 243; 262.

Elec. T. 265—COMMUNICATIONS TECHNOLOGY 5—3—6

Prerequisites—Elec. T. 244, Elec. T. 232
Spaeth

Study of voltage amplification as applied to radio-frequency and audio-frequency circuits. Analysis of amplifier circuits and coupling methods, radio-frequency tuning circuits, regenerative and degenerative circuits, decoupling networks, and basic oscillator circuits. Construction, tuning, and alignment of superheterodyne receivers.

Text: Slurzberg and Osterheld, *Essentials of Radio*.

Elec. T. 266—TELEVISION TECHNOLOGY 3—3—4

Prerequisite—Elec. T. 234 Goodwin

Principles of frequency modulation, methods of modulation and demodulation, FM transmitter and receiver circuits. Federal Communications Commission standards for television transmission. Camera and picture tubes, composite video signal, television receiver circuits, power supplies, video amplifiers, deflection circuits, alignment procedures, transmitter circuits, and color television.

Text: Grob, *Basic Television, Principles and Servicing*.

Elec. T. 271—WIRING METHODS 3—3—4

Prerequisite—Elec. T. 122 Meintzer

Types of wiring and wiring methods used in buildings. Selection of wire sizes, fuses, circuit breakers, insulation, distribution systems, control circuits, and service entrances. Design and layout of electrical wiring systems for lighting, motors, and control circuits in accordance with standard practice and the recommendations of the National Electrical Code.

Text: Ritcher, *Practical Wiring*.

Elec. T. 272—ILLUMINATION 2—3—3

Prerequisite—Elec. T. 122 Meintzer

Illumination principles and practices. Modern illumination principles, calculation procedures, and equipment are coordinated in design problems of complete fluorescent and incandescent lighting installations.

Text: Sharp, *Introduction to Lighting*.

Elec. T. 275—ELECTRIC-POWER DISTRIBUTION 5—0—5

Prerequisite—Elec. T. 256 or concurrently Hamrick

Generation, transmission, and distribution of electric power. Load-center distribution, substation operation, system and line protection, circuit analysis of distribution lines, remote operation of distribution centers, telemetering, and electric-utility practice.

Text: Skrotzi, *Electric Transmission and Distribution*.

Elec. T. 276—ELECTRIC CONTROL SYSTEMS 2—3—3

Prerequisite—Elec. T. 232 Hamrick

An advanced study of control circuits for electrical equipment, synchros, selsyns, magnetic amplifiers, and electronic control of electrical equipment.

Elec. T. 281—INDUSTRIAL ELECTRICITY 5—3—6

Prerequisites—T. Math. 112, T. Phys. 122 Meintzer

Survey course for non-electrical students. Electrical fundamentals, circuit analysis, electric machinery, control circuits, wiring methods, and industrial applications of electrical equipment.

Text: Lister, *Electric Circuits and Machines*.

Elec. T. 291—DIAL C.O.E. TECHNOLOGY 5—3—6

Prerequisite—Elec. T. 244

Fundamentals of dial telephony; types of dial equipment; peculiarities, applications, and limitations of types; calculation of switch quantities; ringing equipment; charging equipment; storage batteries, simplex and composite equipment; signaling; equipment floor-plan layouts.

Elec. T. 292—TRAFFIC TECHNOLOGY 3—0—3

Prerequisite—Elec. T. 291 or concurrently

Basic data required to calculate the requirements of dial systems; obtaining and analyzing data; ATB, LTB, PC and OF meters; peg counts; cord counts, switch counts; trunk group types, uses, sizes; numbering and switching plans.

Elec. T. 293—OUTSIDE PLANT 3—0—3

Prerequisite—Civil T. 121

Basic data for outside-plant engineering

(ASC); selection of pole-line routes; staking of lines; cable vs. open wire; pole-line construction; wire sagging; joint use.

Elec. T. 294—CARRIER SYSTEMS
5—3—6

Prerequisite—Elec. T. 291

Concepts of multiple channels on a single line; use of modulation of a carrier signal in telephone transmission; filter circuits for recovery of voice signal from carrier transmission; phase-shifted carrier for multiple modulation; phase-shifting circuits for recovery of voice signals from carrier transmission.

Elec. T. 295—INTERFERENCE AND PROTECTION
3—3—4

Prerequisite—Elec. T. 293

Noise; crosstalk; induced voltages; joint use; lightning; earth potentials; grounding; drainage coils; transposition systems.

Elec. T. 296—TELEPHONE SYSTEM TECHNOLOGY
5—3—6

Prerequisite—Ind. T. 223, Elec. T. 291

Overall system considerations; comparison of plans; cost studies; rates and tariffs; construction scheduling; cutovers; technical operations and maintenance.

ENGLISH, TECHNICAL

T. Eng. 10—REMEDIAL ENGLISH
3—0—0

Review of essentials of grammar, punctuation, and composition. Recitation, written exercises, quizzes, short themes.

Blair, Staff

T. Eng. 111—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.

Sojourner, Staff

Texts: Hodges, *Harbrace College Handbook*. Grant and Foreman, *Exercises in Writing and Thinking*. Harper, *American College Dictionary*.

T. Eng. 112—COMPOSITION AND RHETORIC
3—0—3

Prerequisite—T. Eng. 111 Hays, Staff

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

Texts: Hodges, *Harbrace College Hand-*

book. Grant and Foreman, *Exercises in Writing and Thinking*. Shurter, *Effective Letters in Business*. Harper, *American College Dictionary*.

T. Eng. 221—PUBLIC SPEAKING
3—0—3

Prerequisite—T. Eng. 112 Carroll, Staff

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

Text: Monroe, *Principles of Speech*.

T. Eng. 231—TECHNICAL WRITING
3—0—3

Prerequisite—T. Eng. 112 Hays, Staff

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.

Texts: Gaum, Graves and Hoffman, *Report Writing*. Selected reports from industrial organizations.

GAS FUEL TECHNOLOGY

Gas T. 111—GAS SURVEY 1—0—1

A course designed to introduce the student to the Gas Industry and the various phases of the industry in which employment possibilities exist.

Text: Lecture notes and visiting specialists.

Gas T. 112—THEORY OF GASES
5—0—5

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 of gases, effect of pressure and temperature, meter correction factors, heating values of various fuel gases, and the chemistry of combustion. Also covered are the physical characteristics of hydrocarbon gases, heating values, limits of flammability, boiling points and vapor pressures, dew point and bubble point pressures, vaporization of liquefied gases, and gas-air mixtures.

Text: Lecture notes.

Gas T. 121—GAS UTILIZATION I
3—3—4

Prerequisite—Gas T. 112

A study of the fundamental principles of gas utilization. This course includes

gas burner design and operation, orifice capacities for various gases and pressures, and burner capacities. Emphasis is placed on automatic safety pilots, thermostats, electricity, and electric controls. Laboratory work is devoted to the operation and adjustment of burners and controls.

Text: Clifford, *A Practical Guide to LP-Gas Utilization*.

Gas T. 222—GAS UTILIZATION II
5—3—6

Prerequisite—Gas T. 121

The application of utilization principles to gas ranges, water heaters, refrigerators and space heating equipment. Installation and servicing of appliances, sizing and operating cost of water heaters and space heaters are thoroughly covered. In the laboratory program students get actual experience in the installation and adjustment of a wide variety of domestic and commercial appliances. Special attention is given to electric controls used with various types of heating equipment.

Text: Same as for Gas T. 121.

Gas T. 223—INDUSTRIAL GAS UTILIZATION
5—3—6

Prerequisites—Gas T. 112, Gas T. 121, Gas T. 231 or concurrently.

A study of combustion equipment, controls, and processes relating to the industrial utilization of fuel gases. The laboratory program is devoted to work with industrial equipment and controls. Field trips to industrial plants are also included.

Text: Shnidman, *Gaseous Fuels*.

Thomas

Gas T. 224—GAS CARBURETION
3—3—4

Prerequisite—Gas T. 231 Thomas

This course includes a thorough study of the internal combustion engine. Special emphasis is given to carburetor installation and adjustment for the operation of engines on both natural gas and propane. The laboratory program consists of a study of the mechanical construction of combustion engines, their performance characteristics, and the techniques of engine testing. Equipment includes several makes of engines, all major makes of carburetion equipment, and modern testing equipment.

Texts: Crouse, *Automotive Mechanics*. Abel, *Power Manual*.

Gas T. 231—GAS EQUIPMENT I
5—3—6

Prerequisite—Gas T. 112 Staff

This course is a study of the equipment

used in the handling of gas from the gas mains 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. Special emphasis is given to recognized safe practices in connection with the installation of all types of gas equipment. Actual experience in making gas installations, pipe and tube working, regulator repair and testing, and a study of containers and accessories are included in the laboratory program.

Text: Same as for Gas T. 222.

Gas T. 232—GAS EQUIPMENT II
3—3—4

Prerequisite—Gas T. 231 Thomas

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.

Text: Lectures Notes.

HEATING AND AIR CONDITIONING TECHNOLOGY

H & AC T. 111—FUELS AND BURNERS
5—0—5

Taylor

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.

Texts: Haines, *Automatic Controls for Heating and Air Conditioning*. Steiner, *Oil Burners*.

H & AC T. 221—AIR CONDITIONING I
5—3—6

Prerequisite—T. Phys. 123 or concurrently Taylor

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.

Text: Severns and Fellows, *Heating, Ventilating, and Air Conditioning Fundamentals*.

H & AC T. 222—AIR CONDITIONING II
5—6—7

Prerequisite—H & AC T. 221 Taylor

A continuation of the work given in

H & AC T. 221 with laboratory work in design of domestic or commercial heating systems. This subject includes selection of equipment and its placement on blueprints.

Texts: Severns and Fellows, *Heating, Ventilating, and Air Conditioning Fundamentals*. Trane, *Air Conditioning Manual*.

**H & AC T. 223—AIR
CONDITIONING III** 5—6—7

Prerequisite—H & AC T. 222 Taylor

A continuation of H & AC T. 222. The laboratory work covers the calculation of cooling loads, selection and arrangement of equipment, and drawings of the system.

Texts: Severns and Fellows, *Heating, Ventilating, and Air Conditioning Fundamentals*. Trane, *Air Conditioning Manual*.

H & AC T. 231—REFRIGERATION I
3—3—4

Prerequisite—T. Phys. 123 or concurrently Taylor

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.

Texts: Nelson, *Commercial and Industrial Refrigeration*. Trane, *Refrigeration Manual*.

H & AC T. 232—REFRIGERATION II
3—3—4

Prerequisite—H & AC T. 231 Taylor

A continuation of H & AC T. 231 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.

Texts: Nelson, *Commercial and Industrial Refrigeration*. Trane, *Refrigeration Manual*. Kovner, *Technical Calculations for the Refrigeration Service Engineer*.

**H & AC T. 241—AIR CONDITIONING
AND REFRIGERATION FOR
TEXTILE STUDENTS** 5—3—6

Prerequisite—Physics 123 Taylor

A study of the basic principles of air conditioning and refrigeration. The subject matter includes calculation of loads, heating, cooling, humidification, dehumidification, air distribution, and standard control systems.

Text: Trane, *Air Conditioning Manual*.

INDUSTRIAL TECHNOLOGY

Ind. T. 111—HUMAN RELATIONS

3—0—3

Training in development of personalty, 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.

Steinkamp

Text: Uris and Shapin, *Working with People*.

Ind. T. 114—BASIC INDUSTRIAL PSYCHOLOGY

3—0—3

The uses of psychology and what it can accomplish in industry, causation in behavior, leadership, testing, training, and fatigue.

Steinkamp

Text: Maier, *Industrial Psychology*.

Ind. T. 115—LABOR-MANAGEMENT

2—0—2

Designed to supplement Ind. T. 212 (Labor Relations); the history of the labor movement; economic, social, and political factors affecting the labor movement; the union contract and grievance procedure.

Steinkamp

Text: Yoder, Heneman, Turnbull, and Stone, *Handbook of Personnel Management and Labor Relations*.

Ind. T. 116—ORGANIZATION & MANAGEMENT

3—0—3

The organization and functions of the major departments in an enterprise, the levels of responsibility in management, and the basic economic factors involved in a profit making enterprise.

Steinkamp

Text: Peterson and Plowman, *Organization and Management*.

Ind. T. 117—PERSONNEL TRAINING

2—0—2

Supplements Ind. T. 213 (Supervisory Training); history of training, methods of training commonly used today, and management's responsibility for training.

Steinkamp

Text: Same as for Ind. T. 115.

Ind. T. 122—INDUSTRIAL ACCOUNTING

1—3—2

A course designed to give the student a sound foundation in general accounting principles, familiarization with cost accounting theory and practices, and a work-

ing knowledge of the use of accounting data and its relationship to industrial management.

Richardson

Text: Specthrie, *Industrial Accounting—Brief Course and Workbook*.

**Ind. T. 131—METHODS
IMPROVEMENT**

3—0—3

Nahari

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.

Text: Barnes, *Motion and Time Study*.

Ind. T. 151—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.

McClure

Text: Blake, *Industrial Safety*.

Ind. T. 154—INDUSTRIAL SAFETY II

3—0—3

Prerequisite—Ind. T. 151

McClure

The role management must play in industrial safety, the information it must have to insure an efficient, well-managed safety program with particular emphasis on fire prevention, industrial hygiene, accident costs, compensation, insurance, and safety organization.

Text: Simonds and Grimaldi, *Safety Management*.

**Ind. T. 213—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.

Steinkamp

Text: Heyel, *Foreman's Handbook*.

Ind. T. 212—LABOR RELATIONS

2—0—2

Prerequisite—Ind. T. 111

Steinkamp

Personnel policies, selection and employment, interviewing and testing, employee records, training, employee benefits, collective bargaining and employer-em-

ployee relations, grievance procedure, wage and salary standards, and use of practical industrial psychology.

Text: Scott, Clothier, and Spriegel, *Personnel Management*.

**Ind. T. 223—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.

McClure

Text: Grant, *Principles of Engineering Economy*.

Ind. T. 225—COST CONTROL

2—0—2

Prerequisite—Ind. T. 122 and Ind. T. 242

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

Richardson

Text: March, *Cost Accounting*.

**Ind. T. 226—WAGE AND SALARY
ADMINISTRATION**

3—0—3

Prerequisites—Ind. T. 131, Ind. T. 232

A study of the basic requirements of a sound wage and salary program. This study includes the techniques of job analysis and job evaluation, commonly used methods of employee rating, and the various wage incentive systems currently being used.

Lawson

Text: Belcher, *Wage and Salary Administration*.

**Ind. T. 232—MOTION AND TIME
STUDY**

2—3—3

Prerequisite—Ind. T. 131

Nahari

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.

Text: Barnes, *Motion and Time Study*.

Ind. T. 233—MATERIALS HANDLING

2—0—2

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

Lawson

Text: Immer, *Materials Handling*.

Ind. T. 234—PRODUCTION CONTROL

3—0—3

Prerequisite—Ind. T. 131

Nahari

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.

Text: Voris, *Production Control*.

Ind. T. 235—QUALITY CONTROL 2—0—2

Principles of inspection and quality control, with special emphasis on setting up, maintaining, and interpreting statistical control charts.

Text: Rice, *Control Charts*. McClure

Ind. T. 236—PLANT LAYOUT 2—3—3

Prerequisites—Mech. T. 111, Mech. T. 122, Ind. T. 233, Ind. T. 131 Lawson

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.

Texts: Apple, *Plant Layout and Materials Handling*. Apple, *Lab Manual for Plant Layout*.

Ind. T. 237—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. McClure

Ind. T. 241—INDUSTRIAL SALES AND PURCHASING 2—0—2

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. Steinkamp

Text: Lester, *Sales Engineering*.

Ind. T. 242—SMALL BUSINESS MANAGEMENT 3—0—3

Prerequisite—Ind. T. 122 Steinkamp

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.

Text: Kelly and Lawyer, *How to Organize and Operate a Small Business*.

Ind. T. 243—BUSINESS LAW 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. Lawson

Texts: Charles, *College Law*. Charles, *Study Reports for College Law*.

Ind. T. 261—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. Steinkamp
Text: Lecture Notes, Visiting Specialists.

MATHEMATICS, TECHNICAL

T. Math. 6—GEOMETRY 5—0—0

Applied plane geometry, including the parts of solid geometry needed in engineering. Many practical problems are worked in detail.

Text: Welchons and Krickenberger, *Plane Geometry*.

T. Math. 10—REMEDIAL ALGEBRA 5—0—0

A brief review of the fundamentals of algebra, of common and decimal fractions of arithmetic, and a few of the basic theorems of plane geometry.

Text: White, *Intermediate Algebra for College Students*.

T. Math. 111—TECHNICAL ALGEBRA 5—0—5

Prerequisite—Two units of high school algebra or T. Math. 10

Fundamental operations in algebra, factoring, fractions, exponents, radicals, complex numbers, linear equations, systems of linear equations, determinants, quadratic equations, quadratic systems in two unknowns, ratio, proportion and variation, graphical solution of simultaneous equations, and logarithms. Adams

Text: Rosenbach and Whitman, *College Algebra*.

T. Math. 112—APPLIED TRIGONOMETRY AND ANALYTIC GEOMETRY 5—0—5

Prerequisite—T. Math. 111 Maddox

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 co-

ordinate systems, locus and equations, the straight line, the circle, the parabola, and the hyperbola are the topics covered.

Text: Heineman, *Plane Trigonometry*.

**T. Math. 113—APPLIED
MATHEMATICS** 5—0—5

Prerequisite—T. Math. 112 Smith

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.

Text: Richmond, *Calculus for Electronics*.

MECHANICAL TECHNOLOGY

Mech. T. 111—TOOLS AND METHODS
5—0—5

An introduction to the field of metal work and industrial manufacturing for mechanical and industrial 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. Arntson

Text: Begeman, *Manufacturing Processes*.

**Mech. T. 112—METALLURGY AND
HEAT TREATING** 3—0—3

Prerequisites—Mech. T. 111 and Mech. T. 121

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. Freeman

Text: Frier, *Elementary Metallurgy*.

**Mech. T. 121—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.

Text: Henry Ford Trade School, *Shop Theory*. Cuba

Mech. T. 122—MACHINE SHOP I
0—6—2

Prerequisite—T. Dr. 111 Sorrell, Freeman

Fundamental 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.

Text: Shuman, *Machine Shop Work*.

Mech. T. 123—MACHINE SHOP II
0—6—2

Prerequisite—Mech. T. 122 Freeman

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.

Text: Shuman, *Machine Shop Work*

Mech. T. 131—GENERAL WOODWORK
0—6—2

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.

Lockwood

Text: Hjorth, *Principles of Woodworking*.

Mech. T. 214—INSPECTION METHODS
3—0—3

Prerequisites—Mech. T. 121 and 122
Freeman, Arntson

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.

Text: Michelon, *Industrial Inspection Methods*.

Mech. T. 215—JIGS AND FIXTURES
2—3—3

Prerequisites—Mech. T. 121 and 122
Cuba, Freeman

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.

Text: Jones, *Jig and Fixture Design*.

Mech. T. 244—WELDING 0—6—2

Prerequisite—Mech. T. 121 Cuba

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.

Text: Rossi, *Welding and Its Application*.

Mech. T. 225—GENERAL SHEET METAL 0—6—2

Prerequisite—T. Dr. 111 Arntson, Lockwood

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

Text: Bruce, *Sheet Metal Shop Practice*.

Mech. T. 226—SHEET METAL LAYOUT 0—6—2

Prerequisite—Mech. T. 225 Arntson

A continuation of Mech. T. 225 for the Heating and Ventilating students, dealing with layout and fabrication of the different heating and ventilating problems such as parallel line development, radial line development, and triangulation.

Text: Bruce, *Sheet Metal Shop Practice*.

Mech. T. 232—PATTERN MAKING 0—6—2

Prerequisite—Mech. T. 131 Lockwood

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.

Text: McCaslin, *Wood Pattern Making*.

PHYSICS, TECHNICAL

T. Physics 2—PHYSICS, PREPARATORY 5—0—0

An intensive, non-credit course in Basic Physics designed to give the student the necessary background to carry on successfully in Physics 121, 122, and 123.

Defore, Staff

T. Physics 121—MECHANICS 5—3—6

Prerequisite—T. Math. 112 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.

Defore, Lambert, Staff
Texts: Blackwood and Kelly, *General Physics*, 2nd Ed. Defore and Crawford, *Physics Laboratory Exercises*, 3rd Ed.

T. Physics 122—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 exercises parallel the work in the classroom.

Defore, Hurst, Staff

Texts: Same as for T. Phys. 121

T. Physics 123—HEAT, SOUND, LIGHT 3—3—4

Prerequisite—T. Physics 121

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, propagation of light, photometry, reflection, refraction, spectra, color, and optical instruments. Laboratory exercises parallel the work in the classroom.

Defore, Staff

Texts: Same as for T. Phys. 121.

TEXTILE TECHNOLOGY

Tex. T. 111—RAW MATERIALS 3—0—3

A survey and interest course designed to familiarize new students with textile industry and processes. Course briefly covers (1) History. (2) Study of major types of fibers including major chemical and physical properties of (a) vegetable fibers, (b) animal fibers, (c) mineral fibers, (d) man-made fibers. (3) A brief survey of manufacturing processes stressing basic machinery used and nomenclature.

Text: To be selected.

Tex. T. 121—OPENING, PICKING, AND CARDING PROCESSES 3—3—4

A course designed to give the student

a thorough background in opening, cleaning, picking, and carding. This course covers processing of natural and synthetic fibers on the cotton system.

Text: *I.T.C., Vol. 1 and Manufacturers' Handbooks.*

Tex. T. 122—DRAWING, COMBING, AND ROVING PROCESSES 3—3—4

Prerequisite—Tex. T. 121

A course designed to give the student a thorough background in drawing, combing, and roving. This course covers processing of natural and synthetic fibers on the cotton system.

Text: *I.T.C., Vol. 1 and 2 and Manufacturers' Handbooks.*

Tex. T. 123—SPINNING, WINDING, TWISTING, AND WARPING PROCESSES 3—3—4

Prerequisite—Tex. T. 121 and 122

A course designed to give the student a thorough background in spinning, winding, quilling, twisting, and warping. This course covers processing of natural and synthetic fibers on the cotton system.

Texts: *I.T.C., Vols 3 and 4.*

Tex. T. 162—TEXTILE CHEMISTRY AND DYEING 3—0—3

This course deals with the general methods for bleaching, dyeing and finishing materials made from natural and synthetic fibers.

Text: To be selected.

Tex. T. 231—WEAVING—CAM, DOBBY, AND BOX LOOM MECHANISMS 3—3—4

Course covers theory of weaving, principal motions, auxiliary motions, mechanical and electrical warp stop motions, let-off and take-up mechanisms, principles of shedding with cams, dobbies, and jacquard machines. Laboratory covers weaving practice and reports made from studies of the looms.

Text: To be selected.

Tex. T. 232—WARPING, SLASHING, AND DRY FINISHING (CLOTH ROOM) PROCESSES 3—0—3

Course covers theory of warp preparation, construction of warpers and slashers, theory of size preparation, size components, size formulas. Cloth Room Processes covers construction of various machines, their purposes, the order in which they are arranged. Types best suited to mills on various kinds of fabrics.

Text: *I.T.C., Vol. 7.*

Tex. T. 241—BASIC FABRIC DESIGN 3—0—3

A study of the fundamental weaves, their common derivatives, and the drafting of these weaves. Covers plain, twill, and satin weaves and the construction of drawing-in and chain drafts for each weave studied.

Text: *I.T.C., Vol. 8.*

Tex. T. 242—FABRIC ANALYSIS 2—3—3

A course designed to give the student a background of information on the analysis of fabrics for weave, yarns, drafts, harness arrangement and reed plan. Sufficient data are collected on each of several plain and fancy fabrics to enable the student to duplicate the fabrics.

Text: *I.T.C., Vol. 8.*

Tex. T. 243—STANDARD FABRICS 3—0—3

A survey course covering the various standard cotton fabrics manufactured and marketed at the present time. The details covered include the name and its derivation; a physical description of the fabric; the uses for the fabric in the grey; the usual finishes applied to the fabric; the uses for the fabric in the finished state; the usual ranges in width, yarn counts, and constructions for the fabric; and some typical constructions for the fabric.

Text: None.

Tex. T. 244—PHYSICAL TESTING—FIBERS, YARNS, AND FABRICS 0—6—2

A course designed to teach students the fundamental testing procedures ordinarily performed in the mill laboratory. Includes Micronaire, Fibro-Graph, Pressley, Shirley Analyzer and Suter-Webb Sorter tests on fibers; uniformity, twist, strength, and count determination on yarns; breaking strength, tearing strength, luster strength, abrasion resistance, and weight determination on cloth.

Text: To be selected.

Tex. T. 251—TEXTILE COSTING 3—0—3

A course designed to give the student the basic principles and theory of Textile Costing. Covers the basic cost concepts, basic principle of materials, labor and overhead costs and the allocation of these costs to the individual departments so that a cost per unit of output may be determined.

Text: To be selected.

HELPFUL REMINDERS

REACHING CHAMBLEE, 13 miles north of Atlanta.

BY PLANE—To Atlanta Municipal Airport; ride airport bus into city to Biltmore Hotel; board Oglethorpe trolley and ride to end of line; engage taxi to STI.

BY TRAIN OR BUS INTO CITY—Get Oglethorpe trolley at Broad and Walton Streets or anywhere on Peachtree north of Broad; ride to end of line; engage taxi to STI.

BY AUTOMOBILE—

From east over Routes 12, 78, or 29—Come to Decatur; take Clairmont Avenue and Clairmont Road to STI.

From northeast over Route 23—To Clairmont Road, 12 miles north of Atlanta, then north on Clairmont to STI.

From north over Route 19—To Buckhead, out Peachtree Road to Clairmont Road, and then to STI.

From northwest over Route 41—To West Paces Ferry, Buckhead, Peachtree Road, Clairmont Road, and STI.

From west over Route 78—On North Avenue east to North Expressway, to Clairmont Road, northwest on Clairmont Road to STI.

From south over Routes 41, 19, 29, 23, and 42—Williams Street or North Avenue or Tenth Street to North Expressway, to Clairmont Road, northwest on Clairmont Road to STI.

* * *

WHAT TO BRING—Students should remember to bring bed linens (4 sheets, 2 pillowcases), 2 blankets, a pillow; a bathrobe; a desk lamp; and any other personal items which would add to comfort, convenience, and attractiveness of his room—radio, curtains, pictures, etc.

* * *

SCHOOL CLOTHING—STI students dress informally. A few do wear suits; many choose slacks, shirt, and warm jacket; others find khaki or denim trousers and matching shirt appropriate and acceptable. Regardless of what he chooses to wear, every student should bring clothing suitable for wear in shops and labs.

* * *

DRAFT DEFERMENT—Southern Tech students are subject to the same draft-deferment regulations accorded other college students over the nation. A student is deferred for his first school year as long as his work is satisfactory, and for the second if he makes the upper half of the class scholastically.

* * *

LAUNDRY SERVICE—The school operates no laundry. However, the STI dormitories are equipped with washing machines, which many students find economical and convenient. Commercial firms make scheduled pickups and deliveries to the dormitories for dry cleaning and laundry.

* * *

PAYMENT OF EXPENSES—All fees (\$90.00 for residents of Georgia and \$95.00 additional for non-residents) and cost of books

HELPFUL REMINDERS—Continued

and supplies (about \$30.00 per quarter) are payable in advance on registration day. A \$10.00 key and security deposit is also required of boarding students. Board at \$120.00 per quarter may be paid for in two installments of \$61.00 each. Room rent is \$50.00 payable in advance.

* * *

CAUTION TO VETERANS—Monthly subsistence checks are paid by the government directly to the P. L. 550 (Korean) veteran, and the veteran is personally responsible to the school for his expenses. Veterans, however, do not begin to receive their checks until at least a month and a half after they are enrolled. They, therefore, should come prepared to pay in advance for all fees, books and supplies, and both installments on room and board.

* * *

APARTMENTS FOR MARRIED COUPLES—The school has available comfortable, inexpensive, conveniently located one-, two-, and three-bedroom apartments for married couples. Interested students should request an application for an apartment from the STI Registrar and return it with his Application for Admission.

* * *

STUDENT AUTOMOBILES—STI students are permitted to keep automobiles on the campus as long as they operate them safely, courteously, and moderately. If this principle is violated, privilege of keeping the car at school will be denied.

* * *

ENTRANCE EXAMINATIONS—With the exception of the College Board SAT, no examinations to determine whether a student will or will not be admitted are required, although a battery of tests for guidance and counseling purposes are administered to each student in his first week of school.

A placement examination will be given to entering freshmen to determine aptitude and ability in basic algebra and English, and remedial courses in these subjects will be provided for those students not meeting minimum requirements.

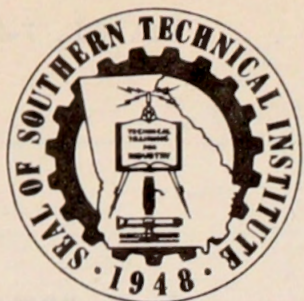
* * *

EVENING SCHOOL CLASSES—Southern Tech conducts no evening school classes at the present time, all of its offerings being confined to day work between the hours 8:00 A.M. to 6:00 P.M. However, five curricula parallel to those offered by STI may be obtained in the evening on the main campus of the Georgia Institute of Technology.

Students who wish may take part of their training in the Engineering Evening School on the main campus and later transfer their credits to Southern Technical Institute to complete their courses, or vice versa.

* * *

SPECIAL NOTICE TO BEGINNING STUDENTS—All beginning students are expected to be on the STI campus by 10 A.M. of the first day in the quarter to participate in scheduled registration and orientation activities.



LAWRENCE V. JOHNSON
Director

Tel. GL. 7-7201

SOUTHERN TECHNICAL INSTITUTE
CHAMBLEE, GEORGIA

L. Y. BRYANT
Registrar

CERTIFICATE OF RECOMMENDATION
(NON-RESIDENT OF GEORGIA)

- I. (A non-resident of the State of Georgia shall submit a certificate from two alumni or alumnae of the institution that he desires to attend, or from two reputable citizens of the community in which he resides; in addition, he must have a certificate from a judge of a court of record)

Name of Applicant _____

Address of Applicant _____

We, the undersigned, hereby certify that we are personally acquainted with the above-named applicant; that he is of good moral character; bears a good reputation in his community; and that in our opinion he is a fit and suitable person for admission to Southern Technical Institute, and is able to pursue successfully the course of study for which he wishes to register.

Date _____ Signed _____
(Check one) Alumnus, Ga. Tech (); Southern Tech (); or, Citizen of Community ()

Address _____
(City) (State)

Date _____ Signed _____
(Check one) Alumnus, Ga. Tech (); Southern Tech (); or, Citizen of Community ()

II. (Certificate to be signed by a judge of a court of record of the county or parish in which the applicant resides)

This is to certify that _____ is a bona fide resident of _____,
(Name of Applicant) (County or Parish)
is of good moral character, and bears a good reputation in the community in which he resides.

Date _____ Signed _____

Title _____

Address _____
(City) (County) (State)



Tel. GL. 7-7201

SOUTHERN TECHNICAL INSTITUTE
CHAMBLEE, GEORGIA

LAWRENCE V. JOHNSON
Director

L. Y. BRYANT
Registrar

CERTIFICATE OF RECOMMENDATION
(RESIDENT OF GEORGIA)

(Complete Sections I and II)

I. (Certificate to be signed by two alumni or alumnae of Georgia Tech or Southern Tech residing in the State of Georgia)*

Name of Applicant _____

Address of Applicant _____
(Street) (City) (County) (State)

We, the undersigned citizens of the State of Georgia and alumni or alumnae of Georgia Tech or Southern Tech, hereby certify that we are personally acquainted with the above-named applicant; that he is of good moral character; bears a good reputation in his community; and that in our opinion he is a fit and suitable person for admission to Southern Technical Institute, and is able to pursue successfully the course of study for which he wishes to register.

Date _____ Signed _____

Address _____
(City) (County)

Date _____ Signed _____

Address _____
(City) (County)

*If there are no alumni or alumnae residing in the county of the residence of the applicant, then the above certificate may be signed by the Judge of the Superior Court of the Circuit in which the applicant resides.

Judge of the Superior Court of the Circuit of the State of Georgia

II. (The following certificate to be signed by the Ordinary or Clerk of the Superior Court of the County in which the applicant resides)

This is to certify that _____ is a bona fide resident of the above-mentioned county, is of good moral character, and bears a good reputation in the community in which he resides.

Name of Applicant

Date _____ Signed _____

Title _____

Address _____
(City) (County)

**A Unit of the Engineering Extension Division
Georgia Institute of Technology**

