

Southern Technical Institute 1978-79 General Catalog

Division of the Georgia Institute of Technology

ROADS OF OPPORTUNITY LEAD TO

SOUTHERN TECHNICAL INSTITUTE

(Marietta, Georgia)



Visitors to the Campus

Southern Tech welcomes visitors to its campus at any time. Classes are held five days a week, Monday through Friday, from 8:00 a.m. until 11:00 p.m. Administrative offices are open from 8:00 a.m. until 5:00 p.m. Monday through Friday. The Evening School Coordinator's office is open until 8:00 p.m. Monday through Thursday and until 6:30 p.m. on Friday.

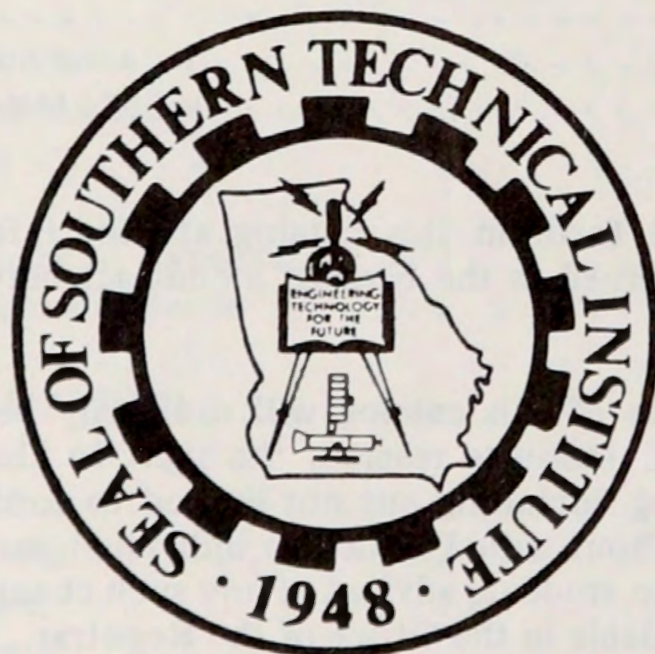
Applicants and other persons interested in obtaining information about the Southern Tech program are encouraged to contact the Admissions Office regarding appointments.

Southern Technical Institute

534 Clay Street
Marietta, Georgia 30060

CATALOG AND BULLETIN
Fall 1978 – Summer 1979

A Division of the Georgia Institute of Technology
A Unit of the
University System of Georgia



This institution is in compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, and Sections 503 and 504 of the Rehabilitation Act of 1973, and does not discriminate on the basis of race, creed, color, national origin, sex, or handicap.

College Directory

Academic Departments

Apparel and Textile Engineering Technology	424-7273
Architectural Engineering Technology	424-7253
Chemistry and Physics	424-7215
Civil Engineering Technology	424-7261
Electrical Engineering Technology	424-7246
English and Social Studies	424-7202
Fire Science Technology	424-7371
Industrial Engineering Technology	424-7243
Mathematics	424-7235
Mechanical Engineering Technology	424-7274
Special Studies	424-7361
Admissions	424-7210
Business Office	414-7220
Continuing Education	424-7219
Co-op Office	424-7223
Dean	424-7230
Evening School	424-7264
Financial Aid	424-7227
Information	424-7240
Library	424-7276
Placement	424-7224
Registrar	424-7212
Student Center	424-7374
Veterans Affairs	424-7251

The statements set forth in this catalog are for information only and should not be construed as the basis of a contract between a student and this institution.

While the provisions of this catalog will ordinarily be applied as stated, Southern Technical Institute reserves the right to change any provision listed in this catalog, including but not limited to academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information on changes will be available in the Office of the Registrar.

It is especially important that each student note that it is his or her responsibility to keep himself or herself apprised of current graduation requirements for his or her particular degree program.

Any student at Southern Technical Institute may elect to graduate under any catalog in effect during the time(s) of enrollment, or the catalog in effect one year prior to the initial date of enrollment. This catalog selection applies *only* to the course requirements of that catalog. All other requirements for graduation must be satisfied according to the regulations in effect at the time of graduation.

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University System of Georgia
Members of the Board of Regents

		Current Term
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CHARLES T. OXFORD, Albany	Second District	1975-1982
JOHN H. ROBINSON, III, Americus	Third District	1972-1979
SCOTT CANDLER, JR., Decatur	Fourth District	1977-1984
ELRIDGE W. McMILLAN, Atlanta	Fifth District	1975-1982
LAMAR R. PLUNKETT, Bowdon	Sixth District	1978-1985
JAMES D. MADDOX, Rome	Seventh District	1973-1980
THOMAS H. FRIER, SR., Douglas	Eighth District	1978-1985
P. R. SMITH, Winder	Ninth District	1973-1980
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MARIE DODD, Roswell	State-at-Large	1978-1981
JESSE HILL, JR., Atlanta	State-at-Large	1978-1985
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Officers and Staff

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Officers of Administration**

- JOSEPH M. PETTIT *President*
Ph.D., Stanford University
- VERNON D. CRAWFORD *Vice President for Academic Affairs*
Ph.D., University of Virginia

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Officers of Administration**

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M.Ed., University of North Carolina
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M.S., University of Tennessee
- JOHN W. PATTILLO *Director of Library*
M.Ln., Emory University
- LEWIS G. VAN GORDER *Evening School Coordinator*
M.A., George Washington University



Accreditation

The Southern Technical Institute is an accredited, co-educational, residential college offering associate and bachelor degrees in several different fields.

Associate degree programs are offered in

APPAREL ENGINEERING TECHNOLOGY
ARCHITECTURAL ENGINEERING TECHNOLOGY
CIVIL ENGINEERING TECHNOLOGY
ELECTRICAL ENGINEERING TECHNOLOGY
FIRE SCIENCE TECHNOLOGY
INDUSTRIAL ENGINEERING TECHNOLOGY
MECHANICAL ENGINEERING TECHNOLOGY
TEXTILE ENGINEERING TECHNOLOGY
TEXTILE MANAGEMENT

Bachelor degree programs are offered in

APPAREL ENGINEERING TECHNOLOGY
ARCHITECTURAL ENGINEERING TECHNOLOGY
CIVIL ENGINEERING TECHNOLOGY
ELECTRICAL ENGINEERING TECHNOLOGY
INDUSTRIAL ENGINEERING TECHNOLOGY
MECHANICAL ENGINEERING TECHNOLOGY
TEXTILE ENGINEERING TECHNOLOGY

Southern Technical Institute is accredited by the Southern Association of Colleges and Schools.

The engineering-technology curricula except the curricula leading to associate degrees in Industrial Engineering Technology-Industrial Management option and Electrical Engineering Technology-Nuclear Safety option and the bachelor degree in Industrial Engineering Technology-Industrial Distribution option are accredited by the Engineers' Council for Professional Development, which is the national engineering technology accrediting agency.

Scholastic work offered by Southern Technical Institute is not available through correspondence.

Academic Calendar****1978-1979****Fall Quarter 1978**

September 18	(M)	New students report
September 19	(T)	Registration
September 20	(W)	Classes begin
September 22	(F)	Last day to drop-add-audit
October 20	(F)	Last day to withdraw without penalty
*November 23-26		Thanksgiving Holidays
December 1-6		Final Examinations
December 6	(W)	End of Fall Quarter
*December 7-January 1		Christmas Holidays

Winter Quarter 1979

January 2	(T)	Registration
January 3	(W)	Classes begin
January 5	(F)	Last day to drop-add-audit
February 5	(M)	Last day to withdraw without penalty
March 14-16		Final Examinations
March 16	(F)	End of Winter Quarter

Spring Quarter 1979

March 26	(M)	Registration
March 27	(T)	Classes begin
March 29	(Th)	Last day to drop-add-audit
April 27	(F)	Last day to withdraw without penalty
June 5-8		Final Examinations
June 8	(F)	End of Spring Quarter
June 9	(S)	Graduation

Summer Quarter 1979

June 25	(M)	Registration
June 26	(T)	Classes begin
June 28	(Th)	Last day to drop-add-audit
*July 4	(W)	Independence Day Holiday
July 27	(F)	Last day to withdraw without penalty
*September 3	(M)	Labor Day Holiday
September 5-7		Final Examinations
September 7	(F)	End of Summer Quarter

Fall Quarter 1979

September 17	(M)	New students report
September 18	(T)	Registration
September 19	(W)	Classes begin
September 21	(F)	Last day to drop-add-audit
October 19	(F)	Last day to withdraw without penalty
*November 22-25		Thanksgiving Holidays
December 2-5		Final Examinations
December 5	(W)	End of Fall Quarter

*Official school holidays.

**This is a tentative academic calendar and is subject to change. An official school calendar is published prior to the beginning of each quarter. Students should refer to the official calendar for changes.

Statement of Purpose

The Southern Technical Institute, a coeducational, residential-campus college for day and evening students, located in Marietta, is a part of the University System of Georgia. It is an operationally separate unit of the Georgia Institute of Technology, dedicated to the educational development of technicians and technologists.

The purpose of this institution is to provide the students with a working knowledge of various engineering and applied sciences at the technician and technologist levels. The graduates of the two-year technician and the four-year technology programs are prepared for career opportunities in business, industry, government, construction, education, and private-practice engineering and architectural firms. Further, they are prepared to become better citizens in their communities and to lead fuller, more enjoyable lives.

Southern Technical Institute accomplishes these basic purposes by offering the following:

1. Four-year baccalaureate degrees and two-year associate degrees in engineering technology and related fields.
2. Elective courses to enhance the students' appreciation of technology, humanities, and social sciences.
3. Continuing education courses to assist the citizens of the community in a better understanding of the technological world in which we live.
4. Short courses to accomplish specific educational and industrial training goals.
5. Planned activities to provide an environment for the physical development and well-being of the students.

To make these educational experiences convenient, courses are conducted day and evening, on and off campus, through cooperative programs with business, industry, government, other colleges and post-secondary schools, and in work-study cooperative-education programs.



History

Southern Tech was established at the request of the Georgia Business and Industry Association just after World War II. The GBIA saw that the gap between the skilled craftsman and the engineer was widening rapidly and leaving a void in the spectrum of technical education in Georgia. Accordingly, in 1946 members of the association petitioned the Regents to set up an institution to fill this gap. The Regents, in turn, requested Georgia Tech to handle the problem. As a result, Southern Technical Institute, then known as The Technical Institute began operation in rented facilities in the spring quarter of 1948 as a division of Georgia Tech.

Important milestones in Southern Tech history include the change in name from The Technical Institute to Southern Technical Institute, the right to award the Associate in Engineering Technology degree, recognition of Southern Tech as an institution of higher education by the U.S. Department of Education, national accreditation of curricula by the Engineers' Council for Professional Development (ECPD), regional accreditation by the Southern Association of Colleges and Schools, approval to offer the Bachelor of Engineering Technology degree, and expansion of the curricula to include Fire Science Technology.

Growth since 1948 has included many phases. Enrollment has increased from 116 to over 2200, the faculty has increased from 10 to 100, the number of laboratories has increased from 3 to 40, and number of curricula offered (including the options) has increased from 7 to 14. More than 7000 graduates have been sent from the Southern Tech campus to government, business, and industry. Southern Tech was the pioneer college for technical education in the South, and almost weekly, delegations from other institutions visit the Marietta campus. STI faculty members serve as consultants for new technical colleges and function often as members of accrediting teams for both the Engineers' Council for Professional Development and for the Southern Association of Colleges and Schools.

In October, 1961, Southern Tech moved to Marietta and to a new modern 120-acre campus with eight buildings. Two dormitories, a gymnasium, a library, a physical plant building, and a Student Center have been added. The operating budget has tripled since 1960, and the 100 faculty members make up one of the finest instructional staffs in higher education.

Georgia Tech, in establishing Southern Tech as a division, is now able to offer Georgia industry the full spectrum of collegiate technical education from the engineering technician to the scientist.

Admission Information

Admission to Southern Technical Institute is made without regard to race, nationality, sex, or religion. For any information regarding admission to Southern Tech, write the Director of Admissions and Registrar, Southern Technical Institute, Marietta, Georgia 30060. Both freshmen and transfer students are accepted for any of the four academic quarters which normally begin in September, January, March, and June.

All applicants for admission to Southern Technical Institute must have all required credentials on file in the Admissions Office at least 20 days prior to the date of the beginning of the quarter in which they plan to enroll.

The deadline dates for each quarter for 1978-79 are as follows:

Fall Quarter, 1978	August 29, 1978
Winter Quarter, 1979	December 12, 1978
Spring Quarter, 1979	March 5, 1979
Summer Quarter, 1979	June 4, 1979
Fall Quarter, 1979	August 28, 1979

Freshman Admission Requirements

Course Requirements

Students who are considering Southern Tech should plan their high-school schedules to include the following required courses:

Engineering Technology		Fire Science Technology	
English	3	English	3
Algebra	2	Algebra	1
Plane Geometry	1	Science	1
Science	2		

Extra courses in math, science, drawing, or other related areas are recommended. Applicants must be high-school graduates or possess the equivalent (GED).

College Board Test Requirements

All freshman applicants for admission to Southern Technical Institute are required to take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board and have these scores submitted to the Admissions Office no later than 20 days prior to the date of the beginning of the quarter in which they plan to enroll.

Application blanks for the tests may be obtained from high-school counselors, or they can be obtained by writing the College Entrance Examination Board, P.O. Box 592, Princeton, New Jersey 08540.

Special Studies

Southern Tech applicants who do not have appropriate math, English and science requirements in high school or applicants whose scores on the SAT indicate a deficiency in certain subject areas may be admitted to study special studies subjects which supplement the high-school record.

This special studies work is designed both for students who do not meet the entrance requirements for regular admission and for those students who do meet the entrance requirements but want to strengthen their preparation for college work.

Special studies courses may not be applied to any degree program; however, these courses are included as hours earned at the institution. These courses and their entrance requirements are

Spst 090 Reading Improvement

Required of all freshman applicants who score less than 350 on the SAT verbal section

Spst 095 Preparatory English

Required of all freshman applicants who have less than three units of high-school English or who score less than 350 on the SAT verbal section

Spst 096 Geometry

Required of all freshman applicants who do not have a unit of high-school geometry

Spst 097 Basic Concepts for the Physical Sciences

Required of all freshman applicants who have less than two units of high-school science or who are required to take Spst 099

Spst 099 Preparatory Algebra

Required of all freshman applicants who have less than two units of high-school algebra or who score less than 440 on the SAT math section

Applicants required to take special studies courses must take the Basic Skills Examination (BSE) when entering and exiting special studies course work. Applicants whose scores on the BSE are satisfactory may exempt special studies course requirements with the approval of the Head of the Special Studies Department.

Students enrolled for special studies courses during any quarter are limited to a maximum load of 15 quarter credit hours, including all special studies courses, during that particular quarter, unless a larger course load is approved by the Head of the Special Studies Department.

Students who are assigned enrollment in special studies courses normally will be required to have successfully completed those courses after three quarters of enrollment. Students whose academic progress is not satisfactory in these courses after three quarters (less than a 1.5 cumulative scholastic average including special-studies work) will be academically dismissed unless continued enrollment is granted by the Faculty upon the recommendation of the Head of the Special Studies Department.

Admission Procedure

Applicants for freshman admission to Southern Technical Institute must submit the following to the Admissions Office:

- (a) An application for admission,
- (b) An official high-school transcript; if not a high-school graduate, an official high-school transcript and an official copy of scores on the GED (General Educational Development) test,
- (c) College Board SAT scores.

All application credentials must be on file in the Admissions Office at least 20 days prior to the beginning of the quarter in which the applicant plans to enroll.

A freshman applicant may apply as early as the end of his or her junior year in high school. After the receipt of the application, an official high-school transcript through the junior year with senior subjects indicated, and official SAT scores, the Admissions Office will notify the applicant of his or her admission status.

Students considering Southern Tech are advised to take the SAT as early as possible, preferably during the junior year in high school.

Early Admission-Joint Enrollment Program

Students with good academic backgrounds may be admitted to Southern Technical Institute as early as the end of the junior year in high school.

Students qualified for early admission may elect to take all of their remaining high-school courses on the Southern Tech campus, or they may take some courses at Southern Tech and some at their high school.

To be qualified for early admission, an applicant (1) must have completed his or her junior year in high school, (2) must have all required units in high school as prescribed by this catalog, (3) must have taken the SAT, (4) must be a better-than-average student academically, and (5) must receive the recommendation of his or her counselor or principal.

Advanced Placement

College Level Examination Program

Superior students entering Southern Tech may receive college credit for certain courses based on scores on the College Level Examination Program (CLEP). The criteria for credit awarded under the College Level Examination Program are as follows:

<i>CLEP Exam</i>	<i>Minimum Score Required</i>	<i>STI Courses for which credit given</i>	<i>Credit Hours</i>
American History	50	Hist 251 or 252	5
College Algebra	50	Math 111	5
English Composition – General Exam	500	Engl 111	3
English Composition – General Exam	600	Engl 111 and 112	6
English Literature	50	Engl 212	5
General Chemistry	50	Chem 201	5
General Psychology	50	Psyc 112	5
Introductory Calculus	50	Math 253	5
Introductory Micro/ Macro Economics	50	Econ 220	5
Trigonometry	50	Math 112	5
Western Civilization	50	Hist 114 or 115	5

Scholastic Aptitude Test (SAT)

Students entering Southern Tech whose score on the College Entrance Examination Board (CEEB) SAT math section is 575 or higher may

receive five hours of math credit required for graduation and be enrolled in Math 110 – Integrated Algebra and Trigonometry.

Transfer Admission Requirements

Applicants to Southern Tech who have been previously enrolled at a college or university will be considered for admission under the following policies:

- (a) Applicants who are in good standing at their previous college may be accepted in good standing at STI.
- (b) Applicants who are on academic probation at their previous college may be accepted only on probation at STI.
- (c) Applicants who have been academically excluded from their previous college may be accepted to STI only (1) on probation and (2) on approval of the Committee on Admissions.

Applicants for transfer admission must submit the following to the Admissions Office no later than 20 days prior to the beginning of the quarter in which they plan to enroll:

- (a) An application for admission;
- (b) An official transcript from each college the applicant has attended;
- (c) An official high-school transcript and SAT scores, if required by the Admissions Office.

Transfer Credit

All four-year curricula of Southern Tech meet the requirements of the core curriculum of the University System of Georgia. Students participating in the core-curriculum program at University System junior colleges may transfer to Southern Tech with little or no loss of credit.

Listed below are Southern Tech core-curriculum courses.

Area I – Humanities – 20 Hours Required

<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Engl 111	3	Engl 211 or 212	5
Engl 112	3	Engl 221	3
Engl 200	3	Engl 231	3

Area II – Mathematics and Natural Sciences – 20 Hours Required

<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Math 111	5	Phys 201	5
Math 112	5	Phys 202	5

Area III – Social Sciences – 20 Hours Required

<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Econ 220	5	Hist 251 or 252	5
Hist 114 or 115	5	Psyc 112	5

Area IV – Engineering Technology – 30 Hours Required

(For the specific Engineering Technology program it is recommended that the courses listed on the next page be completed; however, this does not preclude the transfer of other approved courses.)

Apparel		Architectural	
<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Chem 201	5	Chem 201	5
Draw 111	2	Draw 111	2
Math 215	3	Math 215	3
Math 253	5	Math 253	5
Math 254	5	Math 254	5
Phys 203	5	Choice of the following:	10
Choice of the following:	5	Biol 201	
Biol 201		Geol 201	
Geol 201		IMT 310	
IMT 310		IMT 316	
IMT 316		IMT 341	
IMT 341		IMT 345	
IMT 345			

Civil		Electrical	
<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Chem 201	5	Chem 201	5
Draw 111	2	Draw 111	2
Math 215	3	Math 253	5
Math 253	5	Math 254	5
Math 254	5	Phys 203	5
Phys 203	5	Choice of the following:	8
Choice of the following:	5	Biol 201	
Biol 201		Geol 201	
Geol 201		IMT 310	
IMT 310		IMT 316	
IMT 316		IMT 341	
IMT 341		IMT 345	
IMT 345			

Industrial		Mechanical	
<i>Courses</i>	<i>Hours</i>	<i>Courses</i>	<i>Hours</i>
Draw 111	2	Chem 201	5
Math 215	3	Draw 111	2
Math 253	5	Math 215	3
Math 254	5	Math 253	5
Phys 203	5	Math 254	5
Choice of the following:	10	MET 117	2
Biol 201		Phys 203	5
Chem 201		Choice of the following:	3
Geol 201		Biol 201	
IMT 310		Geol 201	
IMT 316		IMT 310	
IMT 341		IMT 316	
IMT 345		IMT 341	
		IMT 342	
		IMT 345	

Textile	
<i>Courses</i>	<i>Hours</i>
Chem 201	5
Draw 111	2
Math 215	3
Math 253	5
Math 254	5
Phys 203	5
Choice of the following:	5
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Southern Technical Institute preengineering technology curricula are available at several junior colleges throughout Georgia. Any student graduating from these curricula may expect full transfer credit at STI and will enroll with junior status, needing only the equivalent of the last two years of work offered in a particular major to receive the baccalaureate degree from Southern Technical Institute.

Southern Tech also recognizes ECPD (Engineers' Council for Professional Development) accredited programs as equivalent to the STI program. Therefore STI will accept credit from any ECPD accredited associate degree program equivalent to associate degree credit awarded at Southern Tech provided the student does not change majors.

Transient Students

Transient students are those students attending Southern Tech for a limited period of time, usually one quarter, and who are expected to return to their previous college at the beginning of the next quarter.

A transient applicant must submit to the Admissions Office (1) an application and (2) a transient letter from the academic dean or registrar of his or her college. *A transient letter is good for one quarter only.* If the student desires to remain at Southern Tech for more than one quarter he or she must either submit a new transient letter for the second quarter or apply for regular transfer admission with the Admissions Office. A student may not normally be classified as a transient student for more than two quarters.

It is the responsibility of the transient applicant to determine from his or her previous college the courses he or she should take on the STI campus.

Although not required by the Admissions Office, a transient applicant should obtain a copy of his or her previous college work for the use of his or her STI faculty advisor.

Special and Audit Students

Persons not seeking a degree from Southern Technical Institute yet wishing to gain knowledge from courses taught here may apply for admission as special or audit students.

An applicant applying for special student status who has never matriculated in a college must meet the entrance requirements of a beginning freshman. An applicant who has attended another college must present positive proof of such attendance by furnishing documents as requested by the Admissions Office. (All course prerequisites must be met prior to enrolling in a class.) A special student may attend Southern Tech no more than three quarters, after which a request for regular admission must be made or enrollment will be terminated.

An audit student is required only to file an application form. An auditor will receive grades of "V" and, unlike the special student, will not receive transferable credits. In order to become a regular student, auditors must meet regular entrance requirements. The audit grade, "V," may never be used as a basis for gaining credit in any course.

International Students

All international applicants are required to submit the following data to the Admissions Office. (*All papers must be in the Admissions Office at least 60 days prior to the registration date of the quarter in which the student plans to enroll.*):

- (a) An application for admission including a social security number,
- (b) An official "English-translated" transcript of all the formal education previously undertaken by the student,
- (c) CEEB scores on the Scholastic Aptitude Test (SAT),
- (d) A certificate of health,
- (e) Score on the Test of English as a Foreign Language (TOEFL),
- (f) An affidavit indicating financial security.

To be accepted for admission, international applicants must be at least 18 years old, must be in the top section of their class, and must have high grades on the examinations by the Ministry of Education or similar agency where national examinations are available.

All international students are required to purchase the Southern Tech medical insurance plan in addition to any other insurance plan which he or she may have.

Students Sixty-two Years of Age and Older

Citizens of the State of Georgia who are 62 years of age or older may attend Southern Tech without payment of fees, except for supplies and laboratory or shop fees, when space is available in a course scheduled for resident credit.

To be eligible for participation under this amendment to the Georgia Constitution, such persons

- (1) must present a birth certificate or other comparable written documentation of age to the Registrar at the time of registration,
- (2) must meet all University System and Southern Tech admission requirements,
- (3) will have all usual student and institutional records maintained, and
- (4) must meet all University System, Southern Tech, and legislated degree requirements if they are degree-seeking students.

Readmission

A student who for any reason has remained out of school one full calendar year must apply for readmission. The application together with

any pertinent supporting information must be submitted to the Admissions Office at least 20 days before the registration date of the quarter in which the student plans to reenroll.

Other Admission Requirements

Reserved to every institution of the University System of Georgia is 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 a program of study for which the applicant wishes to enroll and to reject any applicant who fails to meet such tests satisfactorily.

Registration Procedures

Registration for classes is usually held on the first day of the quarter. All new students and *returning students who are not advance-registered* must complete registration that day. Classes begin the next day following the close of registration.

Students may change their registration or late register for the quarter during the first three days of classes. Drop-add cards must be initiated by the student, signed by both the student's advisor and the department head in whose department the course is taught, and delivered to the Office of the Registrar before the close of the third day of classes. Changes made during this drop-add period effectively remove or add courses to the student's schedule.

Students who wish to "withdraw" from a course after the drop-add period may do so by initiating an official withdrawal form, obtaining the appropriate signatures, and returning the completed form to the Office of the Registrar. Withdrawal request submitted to the Registrar prior to the end of the fifth week of the quarter will result in a "W" (a non-penalty mark) for the course(s). Withdrawals submitted after the last day to withdraw (end of the fifth week of the quarter) will result in a "WF." (The WF is computed in the student's scholastic average in the same manner as an "F" grade.)

Advance registration is held usually during the eighth week of the quarter. Students *who are currently enrolled* may advance-register for the next quarter, thereby eliminating the need to return on registration day (the first day of the quarter). Fee statements are sent to all advance-registered students usually one week before the end of the quarter. The advance-registered student may "lock-in" his or her registration by paying fees anytime prior to the end of the registration drop-add period for the quarter. The fee statement may be used to pay fees through the first day of the quarter (registration). Fee payment after the first day of the quarter through the close of late registration must be made at the Cashier's Office. *Fees paid after the first day of the quarter are subject to a late-fee penalty.* (See Late Registration Fee on page 20 of this catalog.)

Students who wish to change their major degree program may do so by initiating a Petition-to-the-Faculty Form, obtaining the signatures of both the current and proposed department heads, and submitting the form to the Office of the Registrar. Requests for department change and deletion of previous major courses for scholastic average and hours purposes must be approved by the Faculty. Requests for the department change *only* require only the signatures of the appropriate department heads.

Financial Information

Matriculation Fee

All students are required to pay a matriculation fee. Students enrolled for 12 or more quarter hours are required to pay a matriculation fee of \$145. The matriculation fee for students enrolled for less than 12 quarter hours is \$12 per quarter hour.

Tuition Fee

The University System of Georgia requires no general tuition fee of students who are legal residents of the state of Georgia. Nonresident students enrolled for 12 or more quarter hours are required to pay a tuition fee of \$238. Nonresident students enrolled for less than 12 quarter hours are required to pay a tuition fee of \$20 per quarter hour.

Student Athletic and Activity Fee

Students enrolled for six or more quarter hours pay a student athletic and activity fee of \$21 per quarter. This fee is optional for students enrolled for fewer than six quarter hours.

Health-Service Fee

Students enrolled for six or more quarter hours pay a health-service fee of \$3.50 per quarter. This fee is optional for students enrolled for fewer than six quarter hours.

Georgia Residents

<i>Quarter Hours</i>	<i>Matriculation Fee</i>	<i>Student Athletic and Activity Fee</i>	<i>Health-Service Fee</i>	<i>Total</i>
1	\$12.00	*	*	\$12.00
2	24.00	*	*	24.00
3	36.00	*	*	36.00
4	48.00	*	*	48.00
5	60.00	*	*	60.00
6	72.00	\$21.00	\$3.50	96.50
7	84.00	21.00	3.50	108.50
8	96.00	21.00	3.50	120.50
9	108.00	21.00	3.50	132.50
10	120.00	21.00	3.50	144.50
11	132.00	21.00	3.50	156.60
12 or more	145.00	21.00	3.50	169.50

*Optional

Nonresidents

<i>Quarter Hours</i>	<i>Matriculation Fee</i>	<i>Tuition Fee</i>	<i>Student Athletic and Activity Fee</i>	<i>Health-Service Fee</i>	<i>Total</i>
1	\$12.00	\$20.00	*	*	\$32.00
2	24.00	40.00	*	*	64.00
3	36.00	60.00	*	*	96.00
4	48.00	80.00	*	*	128.00
5	60.00	100.00	*	*	160.00
6	72.00	120.00	\$21.00	\$3.50	216.50
7	84.00	140.00	21.00	3.50	248.50
8	96.00	160.00	21.00	3.50	280.50
9	108.00	180.00	21.00	3.50	312.50
10	120.00	200.00	21.00	3.50	344.50
11	132.00	220.00	21.00	3.50	376.50
12 or more	145.00	238.00	21.00	3.50	407.50

*Optional

Late Registration Fee

A late registration fee of \$5 for the first day, \$10 for the second day, \$15 for the third day, the total amount not to exceed \$15, will be charged. Exceptions to this regulation will be made for proved emergencies or for sickness certified by a doctor's statement. A student may not register for a particular quarter after the first four days of that quarter.

Graduation Fee

Every student receiving a degree must pay a graduation fee of \$12 before graduating.

Parking/Auto Registration Fee

Every student who parks his or her automobile on the campus is required to pay a parking/auto registration fee according to the following schedule:

Fall Quarter through Summer Quarter	\$6.00
Winter Quarter through Summer Quarter	\$4.00
Spring Quarter through Summer Quarter	\$2.00
Summer Quarter only	\$2.00

These funds help defray the expenses of providing a Police Department for the campus. The Cashier's Office issues the decals in cooperation with the Police Department.

Refund of Fees

Refund of tuition, room rent, student athletic and activity fee, health-service fee, and other educational fees will be made only upon official written application for withdrawals and an application for refund and in accordance with the following schedule:

<i>Date of Withdrawal</i>	<i>Refund</i>
On or before the last day to register	100%
Within the first week	80%
Within the second week	60%
Within the third week	40%
Within the fourth week	20%
After the fourth week	No Refund

Refunds are based on official date of withdrawal, not on last day of attendance. Specific dates and times of each refund period will be posted by the Cashier's Office each quarter.

Estimated Summary of Expenses

	<i>Resident</i>	<i>Nonresident</i>
Matriculation, tuition, other fees	\$ 508.50	\$1222.50
Room	546.00	546.00
Board, five days per week	1260.00	1260.00
Books and supplies	240.00	240.00
Calculator and drawing instruments	125.00	125.00
	\$2679.50	\$3393.50

These *estimates* are based on an academic year of three quarters in attendance with 12 or more quarter hours of scholastic work per quarter.

The college is not permitted to extend to students and parents the privilege of deferred payments of expenses. Therefore the payment of fees, tuition, room rent, etc., is due on the day the student registers. *Registration is not complete until all fees have been paid. All fees and charges are subject to change without notice.*

Financial Obligations

All students are expected to promptly fulfill their financial obligations to the college. A student may be removed from class or other appropriate disciplinary action may be in effect for failure to fulfill financial obligations.

Definition of Legal Residence

To be considered a legal resident of Georgia for the purpose of registering at an institution of the University System of Georgia, a student must establish the following facts to the satisfaction of the Residence Committee of that institution.

- A. 1. If a person is 18 years of age or older, he or she may register as a resident student only upon a showing that he or she has been a legal resident of Georgia for a period of at least twelve months immediately preceding the date of registration.
2. No emancipated minor or persons 18 years of age or older shall be deemed to have gained or acquired in-state residence status for fee purposes while attending any educational institution in this state, in the absence of a clear demonstration that he or she has in fact established legal residence in this state.
- B. If a person is under 18 years of age, he or she may register as a resident student only upon showing that his or her supporting parent or guardian has been a legal resident of Georgia for a period of at least twelve months immediately preceding the date of registration.

- C. A full-time employee of the University System and his or her spouse and dependent children may register on the payment of resident fees.
- D. Nonresident graduate students who hold teaching or research assistantships requiring at least one-third-time service may register as students in the institution in which they are employed on payment of resident fees.
- E. Full-time teachers in the public schools of Georgia and their dependent children may enroll as students in the University System institutions on the payment of resident fees, when such teachers have been legal residents of Georgia for the immediately preceding nine months, were engaged in teaching during such nine-month period, and have been employed to teach full time in the public schools of Georgia during the ensuing school year.
- F. All aliens shall be classified as nonresident students; provided, however, than an alien who is living in this country under a visa permitting permanent residence shall have the same privilege of qualifying for resident status for fee purposes as a citizen of the United States.
- G. International students who attend institutions of the University System under financial sponsorship of civic or religious groups located in this state may be enrolled upon the payment of resident fees, provided the number of such international students in any one institution does not exceed the quota approved by the Board of Regents for that institution.
- H. If the parents or legal guardian of a minor change his or her legal residence to another state following a period of legal residence in Georgia, the minor may continue to take courses for a period of twelve consecutive months on the payment of resident fees. After the expiration of the twelve-month period the student may continue his or her registration only upon the payment of fees at the nonresident rate.
- I. In the event that a legal resident of Georgia is appointed as guardian of a nonresident minor, such minor will not be permitted to register as a resident student until the expiration of one year from the date of court appointment, and then only upon proper showing that such appointment was not made to avoid payment of the nonresident fees.
- J. Career Consular Officers and their dependents who are citizens of a foreign nation which their consular office represents, and who are stationed and living in Georgia under orders of their respective governments, shall be entitled to enroll in University System Institutions on payment of resident fees. The arrangement shall apply to those consular offices whose nation operates on the principle of educational reciprocity with the United States.
- K. Military personnel and their dependents stationed in Georgia and on active duty, except military personnel assigned to System institutions for educational purposes, shall pay the same fees assessed residents of Georgia.

Note: In order to avoid delay and inconvenience upon arrival for registration, if there is any question in your mind concerning your residence, application for clarification should be made immediately or not later than one month prior to the registration date. Applications should be addressed to the Director of Admissions and Registrar, Southern Technical Institute, Marietta, Georgia 30060.

Financial Aid

Southern Technical Institute participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. Participants in

CSS subscribe to the principles that the amount of financial aid granted a student should be based upon financial need. The CSS assists colleges and universities in determining the student's need for financial aid. Students seeking financial aid are required to submit, by April 1, a copy of the Financial Aid Form (FAF), designating Southern Technical Institute as the recipient.

Married students and those who have established financial independence from their families must certify that they did not receive more than \$625 in help from their parents in the past 12 months, were not claimed as an income tax deduction by their parents in the preceding tax year, and have not been residing with their parents within the past year.

Renewal

Any aid can be renewed only within the limits of available resources. Recipients must reapply annually in order to be considered for continued assistance.

Summer Employment

All applicants will be expected to work during the summer and to save funds to be used in meeting their educational needs. All financial aid awarded is dependent on the availability of federal and state funds to Southern Technical Institute. To be awarded financial aid, applicants must (1) show financial need, (2) be eligible for enrollment at STI, and (3) be capable of maintaining good academic standing.

Scholarships

Southern Technical Institute can give some financial assistance to students who show promise of exceptional academic achievement and who cannot enter or remain in college without assistance. Specific plans for financial aid are designed to meet particular needs of the individual student and may be a combination of scholarship aid, loans, and work opportunities. Current information on scholarships may be obtained from the Financial Aid Office.

Regents' State Scholarships: This direct grant is offered to residents of Georgia who have an exceptional level of academic achievement and financial need. Both incoming freshmen and students already enrolled are eligible. No repayment is asked if the student works within the state following graduation. In meeting this stipulation, a year's employment in Georgia is required for each \$1,000 granted or fraction thereof.

The U. S. Army Scholarship Program: Financial assistance in the form of one-, two-, three-, and four-year scholarships is available to highly qualified, highly motivated young men and women who are seriously considering careers as Army officers. The Army Scholarship pays for tuition, textbooks, laboratory fees, and other educational expenses. In addition, the student receives a tax-free subsistence allowance of \$100 each month while in school for up to 10 months of the school year. Additional information concerning this program can be obtained from the ROTC Department at Southern Technical Institute.

Scholarship Fund of the Georgia PTA: Applications must be mailed to the Scholarship Committee, Georgia Congress of Parents and Teachers, 114 Baker Street, N.E., Atlanta, Georgia 30312, on or before March 15. Students who have successfully completed two years in an accredited college and who are preparing themselves to work in a youth-related field (to teach

engineering technology) are eligible to apply. The student must also show need for financial assistance and be willing to work in Georgia one year for each annual scholarship. If a position is accepted in another state or in a field not youth related, the applicant must repay the amount awarded with 5% interest.

Basic Educational Opportunity Grant (BEOG): Southern Tech participates in this federally sponsored program which provides a gift grant up to \$1600 depending upon demonstrated need. Applications for the BEOG are available at Public Libraries, Post Offices, and the Financial Aid Office. They should be submitted directly to the U.S. Office of Education.

Georgia Incentive Scholarship Program: The Georgia Incentive Scholarship Program is a nonrepayable scholarship for qualified Georgia residents based on need. Applications are available from the Georgia Higher Education Authority or the Financial Aid Office.

Loans

Loans of varying amounts at a nominal interest rate are available and the payment date may extend beyond graduation. Applications for loans are made to the Financial Aid Office, Southern Technical Institute, 534 Clay Street, Marietta, Georgia 30060.

National Direct Student Loan Fund: Southern Tech participates in the National Direct Student Loan Program, established by the National Defense Act of 1958. The terms of repayment may extend over a period of ten years.

Pickett and Hatcher Education Fund: Applications and requests for additional information should be addressed to Pickett and Hatcher Education Fund, P.O. Box 1238, Columbus, Georgia 31902.

Hattie M. Strong Foundation: Application should be made between January 1 and March 31. Applications should be addressed to Hattie M. Strong Foundation, 409 Cafritz Building, 1625 Eye Street, N.W., Washington, D.C. 20006.

Emergency Loans: The Marietta Rotary Club, the Marietta Lions Club, the Marietta Civitan Club, and the Smyrna Lions Club have established an Emergency Loan Fund for students attending Southern Technical Institute. Only small temporary loans (10 days) are made from this fund.

Georgia Tech Short-term Loan: Southern Tech students facing a financial crisis are eligible to apply for the needed assistance to the Georgia Tech Loan Fund. Loans must be used for books, fees, or supplies related to college activities. The loan is granted only in emergencies, and it must be repaid 10 days before the end of the quarter in which it is borrowed.

Guaranteed Loans: The Georgia Higher Education Assistance Corporation is a state-endorsed agency which will endorse loans for Georgia residents. Funds are disbursed through participating lending institutions after the applications have been approved by the college, the bank, and the Georgia Higher Education Assistance Corporation. Repayment is made after graduation, and, in most cases, no interest is charged while the student is in college.

Work Opportunities

Work opportunities are an important source of financial aid as part of the college's total financial-aid plan. A wide variety of openings on campus have been reserved for students applying for assistance. Southern Tech also participates in the Federal Work-Study Program, and jobs are available both on and off campus. Application for work opportunities should be made to the Financial Aid Office.

General Information

Evening Classes

The scholastic work at Southern Tech is offered in a continuous program running from 8 a.m. to 11 p.m. All subjects, day and evening are organized, taught, and supervised by the STI staff, faculty, and administration.

The Admissions Office at Southern Tech handles all applications and other requirements for admission to day and evening studies. Entrance and graduation requirements are the same for students in both day and evening classes, and the same degrees are awarded to both day and evening school graduates. Prospective students who desire to study in the evening should be guided by the academic requirements as stated in the catalog. All correspondence, admission papers, and other requirements should be addressed to the Admissions Office, Southern Technical Institute, Marietta, Georgia 30060.

Six of the curricula offered at Southern Tech in the daytime may be studied and completed in the evening. These curricula are Architectural Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology, Fire Science Technology, Industrial Engineering Technology, and Mechanical Engineering Technology. The estimated completion time for one of these programs in the evenings is three years for the associate degree and seven years for the bachelor's degree if the student attends regularly quarter after quarter and experiences no failures.

A schedule of courses offered each quarter is available upon request about three weeks prior to the date of the beginning of the quarter in which the student is interested. A copy may be obtained from the Registrar or from the Evening School Coordinator, Southern Technical Institute, Marietta, Georgia 30060.

The Evening School Coordinator's office is open Monday through Thursday until 8:00 p.m. and on Friday until 6:30 p.m.

Industrial Education

The Department of Industrial Education is a joint effort of Southern Technical Institute, the Georgia Institute of Technology, and the State Department of Education. Its primary purpose is to provide short-term training to meet specific needs of the textile industry.

This department offers training upon request either in the plant or at some nearby convenient facility. A number of courses that represent known needs of the state's textile industry are available, and special courses to meet unique industrial needs are developed when requested. Examples of subjects or services that are available are Instructing Techniques, Fundamentals of Supervision I and II, Textile Mathematics and Technology, Loom Fixing, Cord Fixing, Spinning and Frame Fixing, etc. A substantial proportion of the effort is in training industrial supervisors how to supervise and instruct their employees.

Continuing Education

Southern Tech in cooperation with the Continuing Education Department at Georgia Tech annually conducts educational programs designed to help professional people keep pace with their field, advance in their

profession, or retrain for a related field. The short-term courses are intensive in subject coverage. Special technical and management short courses, as well as conferences and institutes, help train industry personnel by providing information and instruction on new developments and methods. The college cooperates closely with industry, trade associations, and professional organizations in planning and presenting these special education programs.

In addition, Southern Tech serves the local community with its facilities and faculty by offering general noncredit courses and conferences of interest to local citizen groups.

Veterans Programs

The veteran planning to further his or her education using veterans benefits at Southern Tech should apply for admission as any other student. Then prior to enrollment at Southern Tech (preferably at least one month before entering the college) he or she should complete the Veterans Application for Program of Education or Training (VA Form 22-1990) and submit the form to the Southern Tech Office of Veterans Affairs. At the same time, the prospective student is also required to furnish the Southern Tech Office of Veterans Affairs with copies of the following: proof of discharge (DD Form 214), marriage license, dependent children's birth certificates, and other documents needed to define an individual's eligibility.

Eligibility for Veterans Administration benefits has no direct relationship to the institution. All financial transactions are directly between the student and the Veterans Administration. The institution serves only as a source of certification and information to the Veterans Administration.

Southern Tech has established the Office of Veterans Affairs to serve veterans and dependents of deceased or disabled veterans by certification, counseling, information and referral, outreach, and recruitment.

Computer Center

Southern Tech provides academic computing facilities to all students. The Computer Center, located in Room 402 of the Electrical Building, is available from 8:00 a.m. to 9:00 p.m. during the week and from 10:00 a.m. to 2:00 p.m. on Saturday.

The center houses 5 key-punch machines and 5 interactive terminals. Also a remote job entry terminal (RJE) is provided to run batch jobs on the CDC Cyber 74 at Georgia Tech.

In addition to academic computing, the center also houses a DEC PDP 11/70 system used to interactively process student records and other administrative activities.

ROTC

Air Force

Air Force Reserve Officer Training Corps (AFROTC) is available to Southern Tech students by registering at Southern Tech for AFROTC courses and attending classes at Georgia Tech. The program is divided into two phases. The first two years constitutes the General Military Course (GMC), and the last two years, the Professional Officers Course (POC). Additional information may be obtained by contacting AFROTC personnel at Georgia Tech.

AFROTC college scholarships are available to qualified cadets in the two- and four-year programs. Scholarships cover tuition, matriculation, health service, and student activity fees and books. All scholarship cadets also receive \$100 per month tax-free subsistence allowance.

Army

The purpose of the Army officer education program is to provide well educated leaders and decision makers for service as commissioned officers in the Army of the United States. The program seeks to foster understanding of the Army role in national security and society, to provide a perspective of the officer's responsibility within that environment, and to provide the leadership and military management education required to function effectively in a dynamic and highly technical decision-making environment. Commissions are awarded upon graduation. Newly commissioned officers are ordered to active duty involving aviation, engineering, research and development, electronics-communications, or other selected specialities. A graduate choosing a nonmilitary career may be awarded a commission in the Reserve Forces with service in the vicinity of civilian employment. The Department of Military Science offers instruction in both two-year and four-year programs. The four-year program consists of the basic course and the advanced course, each of two years duration. The two-year program is open to both undergraduate and graduate students who may enter the advanced course directly after attending a six-week basic camp in lieu of the basic course. The two-year program is also open to students who qualify for exemption from the basic course as a result of prior military service, adequate participation in a Junior ROTC program in high school, or compression at Southern Tech.

Students who have met the requirements for the basic course or its equivalent may be selected by the professor of military science for entry into the advanced course if they demonstrate leadership potential, pass qualifying exams, and have six academic quarters remaining. Once selected to the advanced course, the student must meet course requirements including attendance at a five-week advanced camp and acceptance of a commission, if offered. Students in the advanced course are given a tax-free subsistence allowance of up to \$1000 per year and are paid while attending the five-week advanced camp at the rate of one-half the basic pay of a second lieutenant. Active duty may be delayed to pursue an advanced degree. ROTC cadets who meet special requirements may apply for a commission in the regular army.

Navy

The Naval Officer Education Program is designed to prepare selected students for commissioned service as regular or reserve officers in the Navy or Marine Corps. Naval professional courses taught on the Georgia Tech campus are designed to instill in each student those qualities essential to performance as junior naval officers. Beginning freshmen enroll in the four-year curriculum; sophomore enrollees commence with 8 weeks active-duty schooling in the summer prior to their junior year and then pursue the normal third- and fourth-year curricula. For more information please contact the NROTC Unit at Georgia Tech, phone 894-4771.

The Library

The Library is not merely a collection of books and other materials to be used as assigned study. Rather, it is a convenient and attractive means of exploring knowledge. The student will find in it many opportunities to read widely in the subjects he or she is studying as well as to explore his or her own outside interests.

Available to the Southern Tech student is a library collection of some 60,000 catalogued volumes and 20,000 nonbook items. Included among the nonbook materials are maps, recordings, tapes, and various types of slides and films. More than 1,300 periodical and serial titles are received currently. Most library materials are openly available to the student who needs them, shelved in open stacks where he or she may select desired materials after examining them at his or her leisure.

The library building, constructed at a cost of \$600,000, was opened in the spring of 1968. It contains 24,800 square feet with seating space for approximately 250 persons. In addition to the two main reading and stack areas and the usual library offices and work areas, the building houses a 100-seat seminar room available for campus meetings and seminars.

For the convenience of the library user, there are copying facilities, electronic and mechanical calculators, and typewriters.

In addition to the facilities of the Southern Tech Library, students are also entitled to use those of the Price Gilbert Memorial Library on the Georgia Tech Campus.

The Bookstore

For student convenience, a bookstore is operated in the Crawford Laboratory Building. Textbooks, supplies, stationery, toilet articles, and many other items are available there. The College Bookstore is open from 8:30 a.m. to 6:00 p.m. Monday through Friday.

During the first five class days of each quarter, the College Bookstore is open from 8:30 a.m. to 8:00 p.m. to accommodate evening-school students.

Development Office

The Development Office has the responsibility for Placement Service, Cooperative Education, Executive Secretary of the Southern Tech Foundation, Executive Secretary of the Southern Tech National Alumni Association, publicity and public relations, and industrial relations for the college.

Placement Service

The Southern Tech Placement Office provides a centralized placement service for students and alumni who seek career or part-time employment. The primary objective of the Placement Office is to assist students in developing career plans and helping them obtain employment most suitable to their career goals and aspirations. Services offered by the Placement Office to help students obtain career employment include (1) assistance in resume preparation and printing, (2) career advising, (3) interview skills preparation, and (4) job search advisement. In addition, the Placement Office maintains a library of employer and occupational information as well as a part-time job opportunities reference file.

Some of the employers who recruit at Southern Tech are Georgia

Power Company, Department of Transportation, Southern Railroad, Southern Bell, Milliken, Inc., Arrow Company, Atlantic Steel Company, Oxford Industries, Texas Instruments, IBM, and Johnson Controls.

To ensure productive career decision-making, students are encouraged to make use of the Placement Office as early as possible during their stay at Southern Tech. Employer on-campus interviews, an open resume file, and a copy of the College Placement Annual are furnished to graduating students and alumni who have registered with the Placement Office. Degree candidates are encouraged to begin the job-placement process three quarters prior to their graduation.

Cooperative Education Program

Southern Tech offers its students the opportunity to gain valuable work experience related to their academic majors through a college-sponsored Cooperative Education Program. The co-op plan is provided on an optional alternating-quarter basis in all engineering technology majors in both associate- and bachelor-degree programs and is founded on the principle that learning takes place through practical experience as well as through academic achievement. In addition, co-op programs help students in their career decision-making process and provide substantial support for educational expenses.

Normally, students wishing to use the co-op program must have completed at least 30 quarter hours of academic credit toward their major or possess equivalent work experience, be in good academic standing with the institution, have and maintain a minimum 2.0 scholastic average (most industries require higher scholastic averages) while in the co-op program and be willing to participate in no less than four alternating co-op work assignments. Co-op students are also required to follow guidelines set forth by the Co-op Office as well as all rules and regulations of the institution. Students unable to maintain institutional or company co-op requirements are usually given one probationary quarter in order to correct deficiencies before being withdrawn from the co-op program.

A co-op program can be started with industry in a number of ways: student contact, college reference, or industry initiation. The College Co-op Office arranges employer interviews for interested students after they have made an application to the co-op program. The employer has the final decision regarding co-op employment, and students must meet any additional company co-op requirements. Upon selection for an employer co-op program, the student is normally expected to remain with that company for a minimum of four co-op work quarters.

Co-op salaries are determined by the employer and normally increase with job responsibilities. Most co-op students receive approximately \$650-725 per month during their first co-op assignment. Board and lodging during work quarters are the responsibility of the student, but in most cases co-op employers can provide assistance in locating suitable accommodations. Students with metro-Atlanta co-op assignments usually live at the Southern Tech Dormitory Complex. In addition, students with local co-op work assignments are eligible to participate in all extracurricular and intramural activities on campus with the payment of the regular student athletic and activity fee. Although co-op students are not permitted to participate in the institution's medical insurance program while on work assignment, major medical insurance is available at a minimum cost through Southern Tech at

the beginning of each fall quarter.

Every effort is made by the Co-op Director or Departmental Co-op Advisor to visit students on the job to evaluate work assignments and student progress as well as to develop new co-op opportunities. After completion of each work quarter, the student will be evaluated by both the company and a Southern Tech representative and be required to submit an end-of-term assignment work report outlining specific job duties. Work assignment and academic grade reports are maintained by both the institution's Co-op Office and the co-op employer.

Although no commitment is made by either the student or employer for full-time employment upon completion of the co-op program, the majority of Southern Tech co-op students are offered career employment with their co-op employers. Satisfactory completion of both requirements for graduation and co-op guidelines make a student eligible to receive a Co-op Certificate and recognition for participation in the co-op program on his or her academic record. Students interested in the co-op program should contact the Co-op Office upon completion of their first quarter at the institution.

Southern Tech National Alumni Association, Inc.

The Southern Tech National Alumni Association, Inc. has an office in the Administration Building with an Executive Secretary, who coordinates the activities of the Alumni Association and who acts as a liaison between the Association and Southern Tech.

The purpose of the Alumni Office is to keep the Southern Tech alumni informed of their college and the college aware of its former students. The *Alumni Times*, the Association's newspaper, is sent to all alumni, and as a service to active alumni, the *Alumni Jobletter*, a monthly listing of current job opportunities, is sent.

Since state monies can only be expended in those areas specified, contributions are asked of alumni in order to fill the educational needs of the college where appropriated monies are lacking. Money contributed to the Alumni Association is spent on scholarships, library needs, educational programs, lecturers, departmental and faculty needs, etc. Contributions made to the Alumni Association are tax deductible as provided by law.

The Alumni Office is ready to serve and aid all alumni, graduates and nongraduates. All alumni are urged to become active members of the Alumni Association so that the college may progress in the future.

Southern Tech Foundation, Inc.

In September 1976, the Board of Directors of the Alumni Association established the Southern Tech Foundation, Inc., whereby funds, property, and other types of financial assistance primarily from business, industry, corporations, other foundations, and individuals could be channeled to Southern Technical Institute for its support and development in educational, cultural, social, civic, and professional endeavors.

The purposes of the Southern Tech Foundation are to supplement salaries of deserving faculty, provide scholarships, endowments, research grants, and in various ways promote the cause of higher education at Southern Technical Institute.

The Officers and Board of Trustees, who are empowered to administer donations to the Foundation, are made up of distinguished business and civic leaders from the community and the state at large.

Student Life

Office of the Dean of Students

An important goal of the student life program is student participation and student leadership development. Responsible student participation contributes to the positive environment of the campus and facilitates the accomplishment of the stated purposes of Southern Tech. The student life areas at Southern Technical Institute include student housing, student activities, the Student Center, student health services, intercollegiate and intramural athletics, student development and counseling, and student conduct. The Dean of Students, assisted by a professional staff, is responsible for providing these services and activities for students.

New-Student Orientation

At the beginning of each quarter, a new-student orientation program coordinated by the Director of Student Activities is held for new students. The new-student orientation program is designed to acquaint each new student with the Southern Tech campus and school policies, opportunities, and procedures. The program also attempts to expose new students to the friendly and cooperative spirit which characterizes the Southern Tech community. Students who require more than routine orientation may go to the Office of Student Development (in the Office of the Dean of Students) for more information or counseling on specific problems. Students may also seek information or advice from the appropriate academic department head.

ID Cards

In order to take advantage of many campus services, i.e., check cashing in the Cashier's Office, taking books out of the Library, admittance to student-activity events, each student will need a student ID card. ID cards are made by the Student Government Association at the beginning of each quarter, and every student should make the necessary effort to obtain an ID card.

Student Housing

Southern Tech has two modern air-conditioned residence halls that provide space for approximately 470 students at double-room occupancy. A limited number of rooms are available for single occupancy at an increased rate. The cost for a double room is \$182 per student per quarter and \$237 per student for a single room.

In addition to providing a convenient and economical "home" on the campus, the residence halls also meet the student's physical needs of shelter, comfort, and attractive surroundings. Living in the residence hall also contributes to the educational development of each student through exposure to other students of varied backgrounds, experiences, and personal philosophies. Harmonious living, broadened horizons, and increased human understanding are all desired results of the residence experience.

The housing program is supervised by the Director of Housing, who is assisted by a staff of resident assistants. The primary function of the residence staff is to create and maintain a desirable environment for all residents.

Application Procedures and Room Assignments

All new students who have been accepted to Southern Tech and who have indicated a preference for on-campus housing will be sent a housing application form with their acceptance letter. The student should complete the application form and return it to the Southern Tech Business Office with the \$25 housing deposit. Once the housing deposit has been processed by the Business Office, the housing application will be sent to the Housing Office for assignment. The housing deposit will be refunded unless otherwise forfeited or used for damages. If the institute is unable to make a room assignment, the \$25 deposit will be refunded promptly. Deposits will also be refunded if an entering student submits written notification of cancellation to the Housing Office by September 1 for the fall quarter, December 15 for the winter quarter, and March 15 for the spring quarter. If notification is not received by these dates, the housing deposit will be forfeited. The housing deposit will also be forfeited if a student fails to properly check out of an assigned room through the Housing Office when leaving Southern Tech for any reason. The Director of Housing is responsible for all room assignments. Notifications of new assignments are sent prior to the beginning of each quarter.

Residence hall rooms are generally assigned on the basis of the date of receipt of the housing application and deposit. The Housing Office will recognize preferences for a specific residence hall; however, it assumes no responsibility in guaranteeing that this preference will be received by the applicant. Consideration of roommate request will be given only if the request is mutual.

Room assignments for returning residence hall students for the following year are made during the spring quarter. This policy allows for returning students to sign up for their same room and thus avoid the inconvenience of moving bunk beds and other student improvements to the room. All other housing assignments are made prior to the beginning of each quarter.

No key deposit is required when a student checks into the residence hall, but a charge of \$5 is made for each key replaced during the year.

Students are required to furnish their own pillows, pillow cases, sheets (extra long twin size), bedspreads, blankets, towels, and room accessories such as lamps, draperies, scatter rugs, etc. Students may have a television set as well as other sound amplification equipment in their rooms in so far as the use of this equipment does not disturb other residents. Small electrical appliances are allowed in the student rooms, but cooking in the rooms is prohibited.

Students are reminded that Southern Tech accepts no responsibility for items which are lost or damaged in the residence halls, regardless of reason. Each student is encouraged to carry personal property insurance or to check to be certain that personal property is covered under a parent's insurance policy.

All residence halls are closed between quarters. Students who find it

necessary to remain on campus between quarters must make prior arrangements with the Housing Office.

The Housing Office maintains a partial listing of off-campus housing available in the Marietta area. This information is on file in the Housing Office but is not available for mailing to students.

Food Service

Food service at Southern Tech is located on the ground floor of the Student Center and operates five days a week, Monday through Friday. In addition to a continuous snack-bar operation, varied menus are provided for breakfast, lunch, and dinner. For lunch and dinner two hot entrees are offered with a variety of vegetables, hot breads, baked pastries, and hot dessert. A self-service salad bar is also available. Food service is provided on a cash basis or by weekly or quarterly coupon books. Coupon books can be purchased from the food-service manager at registration time each quarter or at any other convenient time.

There are a variety of restaurants and fast-food establishments within walking distance of the Southern Tech campus, and the availability of weekend eating opportunities is not a problem.

Student Health Services

The quarterly student health service fee of \$3.50 entitles the student to limited out-patient services for minor illnesses. The school nurse is on duty in the clinic located adjacent to the TV Lounge of Norton Hall (Dorm 1). If the nurse cannot provide sufficient medical treatment, she may refer the student to a Marietta physician who works in cooperation with Southern Technical Institute. The physician will treat the student and bill Southern Tech for his services. *Southern Tech, however, will accept responsibility for only the first \$50 per student per year and will expect the student to accept responsibility for any additional charges.* The institute will maintain records of these additional charges, and the student is expected to settle his or her account with the school each quarter when registration fees are due. A student's record will be frozen and/or a student's registration will be cancelled if these charges are not paid.

The Southern Tech health-service fee does not cover emergency or hospitalization care provided through Kennestone Hospital or the hospital on the main campus of the Georgia Institute of Technology. If the school physician (or his designated alternate) is not available for treatment, e.g., weekends or early morning hours, then consideration may be given to covering the expenses of emergency-room treatment. The health-service fee also does not apply toward the following: physical examinations, x-rays unrelated to the diagnosis of the school physician, major or elective surgery, specialist care, orthopedic appliances, eye examinations or treatments, injuries resulting from auto accidents or other accidents which occur off campus, special laboratory examinations, special nurses, all medications and injections, medical expenses resulting from injuries received during intramural or intercollegiate athletic competition, or bathtub racing. In all of these instances the student or his or her parent or guardian is responsible for such added expenses. Students should check with the Dean of Students if there are any questions about medical coverage.

Medical Insurance

Due to the limits on the health services provided by Southern Tech, each student should insure that he or she has adequate personal health insurance. Southern Tech does offer a student an optional medical insurance plan. This plan is available at any time, but the student must pay the total amount of the plan prorated by the quarter he or she enters Southern Tech. A brochure explaining the medical insurance plan in detail is available from the Office of the Dean of Students.

All international students are required to purchase medical insurance made available through Southern Technical Institute.

Except in emergency situations, the Southern Tech Police Department is not responsible for transporting students to the doctor's office or Kennestone Hospital. Students being referred to the doctor's office must assume responsibility for arranging their own transportation. In severe emergency situations the local ambulance service will be called to transport a student to the doctor's office or the emergency room. In some emergency situations the campus Police Department may be called upon to provide transportation. An emergency situation should be interpreted as one demanding immediate medical attention.

Students of other area colleges are not eligible for treatment through the Southern Tech health services program.

Parking

Students who commute and residence-hall students who have automobiles may not always be able to park where it is most convenient for them, but the campus has ample parking space. In addition to the main parking lot, there is a lot near the gym as well as a small lot near Building 5. There are reserved spaces for the faculty and staff members and for visitors. Students parking in the wrong places or improperly will be cited for parking violations by the campus police. The campus speed limit is 25 miles per hour.

Students who operate an automobile on the campus must register the vehicle and obtain a parking decal.

Student Activities

Southern Tech students are very serious about their studies and their course work is very demanding. All of their time, however, is not spent in the classroom, laboratory, or doing homework. Southern Tech is committed to the development of a strong and diversified program of co-curricular activities. Each student is urged to participate according to interest and available time. Student activities are most helpful in maintaining good health, allowing for creative self-expression, developing responsible leadership, and in general allowing a wholesome diversion from academic pressure.

The Student Center

The Student Center serves as a focal point for the Student Activities program at Southern Tech. The center also serves the needs of the faculty, staff, and alumni in providing a gathering point for fellowship and relaxation.

Programs offered by the Student Activities Office and the Student Center are designed to enhance the educational, social, and artistic life of the institute. As a center for community life, the Student Center serves as a laboratory for training students in social responsibility and leadership in a democracy. Through its committees and staff, the Student Center provides a social and recreational program aimed at making spare time activity a complement to a student's education.

The facilities of the Student Center may be reserved for an organized activity, meeting, or other event. Priority is given to a recognized student organization or institute committee that applies first. Reservations may be made in writing or in person through the Coordinator's office.

The Student Center contains a large multi-purpose room as well as several smaller meeting rooms. It also has a large recreation room, a room for silent games, and a listening room containing a variety of sound amplification equipment. Also provided in the Student Center are the craft shop, student post office, TV room, and the food-services operation.

The *United States* Post Office branch located in the Student Center provides mail services for the campus. All students are assigned Post Office boxes and are expected to check them regularly for official communications from the school and for other mail they may receive. Stamps and other postal services are also available in the Post Office.

In addition to office space for the Student Center staff, several student organizations maintain offices in the Student Center. The Student Government Association, the student newspaper, the yearbook, the social fraternities, the Bathtub Racing Association, and the Veterans Club have offices in the Student Center.

Student Government Association

The Student Government Association (SGA) at Southern Tech has traditionally played an important role in student life. Participation in student government is open to all enrolled students who pay the student activity fee. Representatives to the SGA are elected by class and departmental affiliations and from the campus at large. Each spring campus-wide elections are held for president and vice-president. The Student Government represents the student body on important campus issues, is involved in campus projects, and has members assigned to various committees of the institution. The Student Government Association, through its various committees and projects, provides an excellent leadership opportunity for interested students.

Publications and Media

Students who are interested in publications may join the staffs of the student newspaper and the yearbook. The *STing*, the weekly newspaper, and the *Log*, a yearbook published each September, 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 interest into activities outside their course of study. *WSTB*, the campus radio station, is currently operating on carrier current through the various buildings. The radio station maintains an active program schedule and is involved in broadcasting to the campus sports events that occur both at home and away-from-home. A formal application is pending with the FCC for an assignment to an FM frequency

in the near future. The radio station also offers excellent broadcast and technical experience for interested students.

Departmental and Professional Organizations

A number of professional organizations exist on campus and provide excellent opportunities for students to pursue academic interest in the professional world. The following is a listing of departmental or professional organizations:

- American Institute of Architecture
- American Institute of Industrial Engineers
- American Society of Civil Engineering
- American Society of Mechanical Engineers
- Construction Specifications Institute
- Institute of Electrical and Electronics Engineers
- Society of Mechanical Engineers
- Society of Women Engineers

Social Organizations

Much of the social life at Southern Tech surrounds the various activities and projects of the fraternities and the one sorority. Many students enjoy the personal affiliation provided by these organizations and long-lasting friendships are a predictable benefit from affiliation. The following are the social organizations on campus:

- Alpha Phi Alpha Fraternity
- Alpha Xi Alpha Sorority
- Fire Science Technology Fraternity
- Inter-Fraternity Council
- Lambda Chi Alpha Fraternity
- Sigma Pi Fraternity
- Sigma Nu Fraternity
- Tau Kappa Epsilon Fraternity

Honor Society

Superior scholastic achievement is recognized by membership in the Tau Alpha Pi National Honor Society. The original chapter of this society was founded on the Southern Tech campus, and its members have not only demonstrated high academic achievements, but have also maintained various leadership positions in campus organizations.

Special Interest Organizations

In addition to organizations mentioned above, there are a variety of organizations that have emerged in response to the needs of the diversified student body. Among these organizations are the following:

- Amateur Radio Club
- Baptist Student Union
- Bathtub Racing Association
- Black Student Association
- Fellowship of Christian Athletes
- International Students Association
- Southern Tech Band
- Southern Tech Track Club
- Veterans Club

Awards Ceremony

At the conclusion of each spring quarter, an annual Awards Ceremony is held on the day before commencement. During the Awards Ceremony, various awards are presented to students and faculty in recognition of outstanding achievement and service to Southern Tech and to individual organizations. Information regarding the various awards may be obtained by contacting the Office of the Dean of Students.

Student Development and Counseling Services

A primary goal of the Student Development Office is to help the student explore, in confidence, existing problems, possible decisions, and future plans that are important to his or her self-understanding. Individual, group, and workshop experiences are offered to the individual who is interested in exploring academic, career, and social-personal concerns. In many cases, an individual may simply want to utilize the Student Development Office as a starting referral point to find the correct source of information for his or her questions.

Counseling services are available to all Southern Tech students who seek assistance in a variety of areas.

Academic Counseling

Academic counseling is available to the Southern Tech student through his or her major department advisor. Although counseling is provided, the student is ultimately responsible for scheduling all courses required for the degree. Study-skills assistance is offered to students who may be experiencing academic difficulty in adjusting to the academic environment. In cooperation with the Head of the Special Studies Department, a workshop designed to strengthen academic skills and study habits is available for all students who want help in this area. Additional help may also be obtained in the areas of course selection, academic loads, and course deficiencies.

Career Counseling

Selection of a degree program and eventual career opportunities are concerns that face every student. The Student Development Office, working in close cooperation with the Placement Office, can assist the individual in evaluating and planning appropriate careers. A career workshop is available to all students who wish to examine their personal interests and goals and to relate them to careers and the world of work.

Social-Personal Counseling

Academic problems are often related to or aggravated by personal concerns facing the individual. A lack of self-confidence, inadequate interpersonal skills, or "just having one of those days when nothing seems to go right" are some of the areas in which the Student Development Office may help with personal problems. A referral service is also available through this office for students with more intense personal concerns.

Testing

The Student Development Office has a variety of tests designed to assist the student in evaluating his or her academic ability, study skills, career aptitude, personality, and life goals.

Group Learning Activities

Clubs, groups, fraternities, and sororities can participate in interpersonal dynamics, facilitation skills, communication skills, value clarification groups, academic survival workshops, student-faculty relations, sex education, alcohol and drug rehabilitation, minority-groups identification, equal-rights workshops, disadvantaged and handicapped-student seminars, and family and couple counseling for married students.

Resource Materials

Occupational and career-planning materials and special information of other college programs and study-skills information are some of the materials available to the student through the Student Development Office.

Intercollegiate and Intramural Athletic Programs

Intercollegiate Athletics

Intercollegiate athletics are an important part of the overall activity program at Southern Tech. Competition is conducted in the Georgia Intercollegiate Athletic Conference (GIAC) against the following colleges: North Georgia, Georgia Southwestern, Georgia College, Berry, Shorter, Piedmont, Oglethorpe University, and LaGrange. Southern Tech is a member of the National Association of Intercollegiate Athletics (NAIA). In 1978 the Southern Tech "Running Hornets" basketball team represented the NAIA District 25 in the National Basketball Tournament in Kansas City, Missouri, after winning the GIAC Conference Title, the GIAC Post Season Tournament, and the NAIA District 25 Championship.

Intercollegiate competition is offered in basketball, baseball, and tennis; cross-country may be reinstated in the near future. Because of the high academic standards at Southern Tech, athletic competition is a challenge to the talented athlete and dedicated student.

Intramural Sports

Opportunities for recreation, social contacts, and healthful exercise are provided through a well organized intramural program. Competition is available for those students who do not participate in the intercollegiate program. Social fraternities and independent teams along with faculty-staff teams participate during the regular season play. Afterwards, tournaments are conducted to determine the top teams in each sport. Trophies are awarded to winners and runners-up, and an intramural banquet is held each spring to recognize individual participation during the year. Intramural sports are conducted in flag football, softball, and volleyball, and additional sports will be added as the program grows.

Athletic Facilities

Available athletic facilities include a gymnasium, weight room, locker and shower rooms, general-purpose baseball field, two tennis courts, and a two-mile cross-country course. Badminton and volleyball areas are available around the residence halls, and two horse-shoe pitching areas have recently been added. Additional facilities are in the planning stages.

Programs of Study*

The Southern Technical Institute offers programs of study in the following fields:

- Apparel Engineering Technology
- Architectural Engineering Technology
- Civil Engineering Technology (Structural Materials and Design Option)
- Civil Engineering Technology (Surveying and Construction Option)
- Electrical Engineering Technology (Electronic Computer and Control Option)
- Electrical Engineering Technology (Electronics Option)
- Electrical Engineering Technology (Nuclear Safety Option)
- Fire Science Technology
- Industrial Engineering Technology
- Industrial Engineering Technology (Industrial Management Option)
- Industrial Engineering Technology (Industrial Distribution Option)
- Mechanical Engineering Technology
- Textile Engineering Technology
- Textile Management

These curricula have in common a number of features which deserve emphasis. First, all are the same length. All programs are about the same in scholastic difficulty, and all require above-average scholastic aptitude. Each curriculum is so built that the student must spend approximately seventy percent of his or her time in the study of theory and thirty percent in laboratory application. This combination of the theoretical and practical assures that the graduate possesses not only a sound, thorough, extensive knowledge of the principles in the field of his or her specialization but also an adequate knowledge of the work of the skilled craftsman as well.

Every STI curriculum, furthermore, requires the student to study subject material in four distinct though related areas:

- (a) The communication skills of speaking, writing, engineering drawing; interpreting and transmitting technical data and reports; reading electrical circuit diagrams, blueprints, and the like;
- (b) The basic sciences of mathematics and physics;
- (c) Supervisory and management training — essential to many graduates who enter the ranks of professional management and, therefore, need to know how to coordinate men and materials in achieving maximum production;
- (d) A technical specialty — that body of subject matter which is peculiar to each STI curriculum and which contributes so much toward the student's becoming a technical specialist.

Finally, all curricula lead to the associate degree or the bachelor degree.

In the following pages, each program of study is described and course requirements are outlined. Detailed course descriptions are given on pages 89-126.

*Students in the co-op programs are required to follow the same curricula as outlined for regular students.

APPAREL ENGINEERING TECHNOLOGY

The apparel industry is one of the largest and most basic industries in the United States. It provides one of man's most basic and continuing needs — clothing.

From the receipt of raw materials to the shipment of the finished product, the apparel industry offers a creative and challenging career. Opportunities for qualified people to move eventually into executive-level positions are excellent.

Apparel Engineering Technology is designed to train students in all major functional areas of apparel manufacturing.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
AMET	261	Survey of Textile Processes	3	0	3
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
IMT	316	Principles of Management	3	0	3
Math	111	Algebra	5	0	5
Total			14	6	16
 <i>Second Quarter</i>					
AMET	262	Employee Selection and Training	3	0	3
Engl	112	Composition and Rhetoric	3	0	3
Engl	221	Public Speaking	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			18	2	19
 <i>Third Quarter</i>					
AMET	363	Pattern Analysis and Drafting	2	6	4
Hist	251 <i>or</i>				
	252	U.S. History	5	0	5
IET	322	Motion and Time Study	4	2	5
Math	253	Analytic Geometry and Calculus	5	0	5
Total			16	8	19

APPAREL ENGINEERING TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
AMET	364	Machine Evaluation and Selection	4	3	5
Engl	231	Technical Writing	3	0	3
IET	227	Industrial Statistics I	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			16	5	18
<i>Second Quarter</i>					
AMET	465	Synthetic Work Measurement	4	2	5
AMET	466	Cutting-Room Analysis and Costing	3	6	5
IET	339	Statistical Quality Control	3	0	3
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	10	18
<i>Third Quarter</i>					
AMET	368	Pressing and Finishing	2	3	3
AMET	467	Apparel Production Planning	4	3	5
IMT	310	Accounting and Cost Accounting	5	0	5
Math	215	Computer Programming	3	0	3
TET	444	Testing and Quality Control	3	3	4
Total			17	9	20

APPAREL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
Chem	201	General Chemistry	4	2	5
Econ	220	Economics	5	0	5
IET	326	Wage and Salary Administration	3	0	3
IET	341	Finance	3	0	3
Total			15	2	16
<i>Second Quarter</i>					
Engl	200	Language and Logic	3	0	3
IET	340	Plant Layout and Materials Handling	2	4	4
IET	350	Industrial Safety	2	2	3
					Free Electives
					3
					Technical Electives
					3
Total					16
<i>Third Quarter</i>					
AMET	355	Fibers, Fabrics, and Finishes	5	0	5
Engl	211	<i>or</i>			
	212	Man and Literature	5	0	5
Psyc	112	Psychology	5	0	5
Total			15	0	15

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

APPAREL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

		Hours Per Week		Credit
		Class	Lab	Hours
<i>First Quarter</i>				
Hist	114 or			
	115	Western Civilization	5 0	5
IMT	329	Personnel and Labor Relations	5 0	5
IET	344	Industrial Operations Research	5 0	5
		Total	15 0	15
<i>Second Quarter</i>				
IET	401	Project Planning and Control	2 2	3
IET	424	Principles of Engineering		
		Economy	5 0	5
Math	201 or			
	254	Calculus	5 0	5
		Free Electives		3
		Total		16
<i>Third Quarter</i>				
AMET	455	Material Utilization	5 0	5
		Free Electives		6
		Technical Electives		6
		Total		17

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

ARCHITECTURAL ENGINEERING TECHNOLOGY

Architectural Engineering Technology is concerned with the design, construction, and project supervision of residences, schools, shopping centers, industrial plants, and municipal projects. The training is at once creative and practical with emphasis placed on the application of proven techniques as practiced by the architectural and engineering professions.

In addition to those courses in basic English, mathematics, and physics, the curriculum consists of courses in architectural design, working drawings, structural design, construction materials, and construction practices. Students can specialize in either architectural design or construction by selecting the appropriate major elective courses. Either selection will equip the graduate to meet the requirements of a wide range of positions within the construction industry.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
AET	123	Architectural History I	3	0	3
AET	143	Architectural Drawings and Materials	5	0	5
Engl	111	Composition and Rhetoric	3	0	3
Math	111	Algebra	5	0	5
Total			16	0	16
<i>Second Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
AET	300	Architectural Drawing Technique	2	9	5
Engl	112	Composition and Rhetoric	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			14	11	18
<i>Third Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
AET	305	Perspective, Shades and Shadows	2	6	4
CET	121	Elementary Surveying	2	6	4
CET	313	Engineering Mechanics	3	0	3
Draw	111	Engineering Drawing I	0	6	2
Hist	251 <i>or</i> 252	U.S. History	5	0	5
Total			12	18	18

ARCHITECTURAL ENGINEERING TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
AET	306	Dwelling House Design	2	9	5
CET	314	Strength of Materials	3	3	4
Engl	221	Public Speaking	3	0	3
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			12	14	17

<i>Second Quarter</i>					
AET	317	Structural Steel Design	3	3	4
AET	343	Mechanical and Electrical Equip- ment for Buildings	3	0	3
CET	316	Indeterminate Structural Analysis	3	0	3
Engl	231	Technical Writing	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Total			17	3	18

<i>Third Quarter</i>					
AET	307	Architectural Working Drawings	2	9	5
AET	310	Model Building	0	3	1
AET	318	Reinforced Concrete Structures	3	3	4
AET	344	Estimating	3	3	4
CET	311	Structural Drafting-Concrete	0	6	2
Total			8	24	16

ARCHITECTURAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
AET	323	Architectural History II	3	0	3
Engl	200	Language and Logic	3	0	3
Math	201	<i>or</i>			
	254	Calculus	5	0	5
Psyc	112	Psychology	5	0	5
Total			16	0	16
<i>Second Quarter</i>					
AET	313	Building Materials	3	0	3
Engl	211	<i>or</i>			
	212	Man and Literature	5	0	5
		Free Electives			5
		*Major Elective (AET 311 or AET 342)			3
Total					16
<i>Third Quarter</i>					
Chem	201	General Chemistry	4	2	5
Math	215	Computer Programming	3	0	3
		Free Electives			3
		*Major Elective (AET 301 or AET 433)			5
Total					16

*Major electives must include all courses in either Group A or Group B.

Group A

AET 301 Architectural Sketching
 AET 311 Specifications
 AET 401 Building Design
 AET 412 Arch. Office Practice

Group B

AET 342 Methods of Construction
 AET 433 Construction Planning & Control
 AET 441 Building Project Supervision
 AET 442 Const. Business Management

ARCHITECTURAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
AET	411	Site Planning	2	9	5
CET	312	Structural Drafting – Steel	0	6	2
Econ	220	Economics	5	0	5
		Free Electives			5
		Total			17

<i>Second Quarter</i>					
AET	419	Structural Design	4	3	5
Hist	114	or			
	115	Western Civilization	5	0	5
		Free Electives			6
		Total			16

<i>Third Quarter</i>					
IET	424	Principles of Engineering			
		Economy	5	0	5
		Free Electives			3
		*Major Elective (AET 401 or AET 442)			5
		*Major Elective (AET 412 or AET 441)			3
		Total			16

*Major electives must include all courses in either Group A or Group B.

Group A

AET 301 Architectural Sketching
 AET 311 Specifications
 AET 401 Building Design
 AET 412 Arch. Office Practice

Group B

AET 342 Methods of Construction
 AET 433 Construction Planning & Control
 AET 441 Building Project Supervision
 AET 442 Const. Business Management

CIVIL ENGINEERING TECHNOLOGY

Structural Materials and Design Option

With the advent of the new concepts in structural shapes, the structural area of the field of Civil Engineering has grown to a degree that requires greater knowledge of design and advanced techniques of construction. This option will prepare the graduate more specifically for those positions that involve the design, plan preparation, construction, and the inspection of the more modern structures built today.

Since the first-year courses of the Civil Engineering Technology options are the same, a student may elect, after his or her first year in Civil Engineering Technology, to pursue the field in which his or her interests lie.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
AET	143	Architectural Drawings and Materials	5	0	5
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Math	111	Algebra	5	0	5
Total			13	6	15
 <i>Second Quarter</i>					
CET	121	Elementary Surveying	2	6	4
Engl	112	Composition and Rhetoric	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			14	8	17
 <i>Third Quarter</i>					
CET	313	Engineering Mechanics	3	0	3
CET	321	Route Surveys	3	6	5
Engl	221	Public Speaking	3	0	3
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Total			17	6	19

CIVIL ENGINEERING TECHNOLOGY
Structural Materials and Design Option

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
CET	314	Strength of Materials	3	3	4
CET	316	Indeterminate Structural Analysis	3	0	3
Hist	251 <i>or</i> 252	U.S. History	5	0	5
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			15	5	17
<i>Second Quarter</i>					
AET	317	Structural Steel Design	3	3	4
CET	311	Structural Drafting – Concrete	0	6	2
CET	315	Soils and Materials Testing	3	6	5
CET	345	Municipal Sanitation and Hydraulics	4	3	5
Total			10	18	16
<i>Third Quarter</i>					
AET	318	Reinforced Concrete Structures	3	3	4
AET	344	Estimating	3	3	4
CET	312	Structural Drafting – Steel	0	6	2
CET	332	Heavy Construction			
	<i>or</i> 432	Highway Design and Construction	2	3	3
Engl	231	Technical Writing	3	0	3
Total			11	15	16

CIVIL ENGINEERING TECHNOLOGY**Surveying and Construction Option**

The general field of Civil Engineering Technology is one of the broadest of the technological curricula. It includes many fields which, although not directly Civil Engineering Technology subjects, require a knowledge of Civil Engineering Technology and the principles of this subject. The civil engineering technician is a versatile person. He is a surveyor and a construction man, not only on buildings, but on hydroelectric projects, flood-control work, highways and railroad construction, airports, sewerage and water-supply systems, locks, dams, tunnels, aqueducts, and similar projects.

ASSOCIATE DEGREE PROGRAM**First Year**

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
AET	143	Architectural Drawings and Materials	5	0	5
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Math	111	Algebra	5	0	5
Total			13	6	15
<i>Second Quarter</i>					
CET	121	Elementary Surveying	2	6	4
Engl	112	Composition and Rhetoric	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			14	8	17
<i>Third Quarter</i>					
CET	313	Engineering Mechanics	3	0	3
CET	321	Route Surveys	3	6	5
Engl	221	Public Speaking	3	0	3
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Total			17	6	19

CIVIL ENGINEERING TECHNOLOGY
Surveying and Construction Option

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
CET	314	Strength of Materials	3	3	4
CET	323	Land Surveys	2	6	4
Hist	251	<i>or</i>			
	252	U.S. History	5	0	5
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	11	18
<i>Second Quarter</i>					
CET	315	Soils and Materials Testing	3	6	5
CET	345	Municipal Sanitation and Hydraulics	4	3	5
CET	421	Photogrammetry	0	6	2
Engl	231	Technical Writing	3	0	3
Total			10	15	15
<i>Third Quarter</i>					
AET	344	Estimating	3	3	4
CET	311	Structural Drafting – Concrete	0	6	2
CET	324	Topographic and Contour Surveying	2	6	4
CET	332	Heavy Construction	2	3	3
CET	432	Highway Design and Construction	2	3	3
Total			9	21	16

CIVIL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
**CET	316	Indeterminate Structural Analysis	3	0	3
*CET	324	Topographic and Contour Surveying	2	6	4
Chem	201	General Chemistry	4	2	5
Engl	200	Language and Logic	3	0	3
Math	201 <i>or</i> 254	Calculus	5	0	5
Total			*14	8	17
			**15	2	16
<i>Second Quarter</i>					
**AET	317	Structural Steel Design	3	3	4
*CET	332	Heavy Construction			
	<i>or</i> 432	Highway Design and Construction	2	3	3
Econ	220	Economics	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
					*Technical Electives
					4
					**Technical Electives
					3
Total					17
<i>Third Quarter</i>					
**AET	318	Reinforced Concrete Structures	3	3	4
**CET	312	Structural Drafting – Steel	0	6	2
*CET	323	Land Surveys	2	6	4
Engl	211 <i>or</i> 212	Man and Literature	5	0	5
Psyc	112	Psychology	5	0	5
					*Free Electives
					2
Total					16

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

*For students with an associate degree in Structural Materials and Design

**For students with an associate degree in Surveying and Construction

CIVIL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

			Hours Per Week		Credit
<i>First Quarter</i>			Class	Lab	Hours
*AET	419	Structural Design	4	3	5
**CET	425	Advanced Surveying	2	6	4
Hist	114	<i>or</i>			
	115	Western Civilization	5	0	5
		*Free Electives			2
		**Free Electives			4
		Technical Electives			3
					<hr/>
Total					*15
					**16

Second Quarter

IET	424	Principles of Engineering			
		Economy	5	0	5
		Free Electives			7
		Technical Electives			3
					<hr/>
Total					15

Third Quarter

CET	433	Construction Estimating and			
		Scheduling	3	3	4
		Free Electives			7
		Technical Electives			4
					<hr/>
Total					15

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

*For students with an associate degree in Structural Materials and Design

**For students with an associate degree in Surveying and Construction

ELECTRICAL ENGINEERING TECHNOLOGY**Electronic Computer and Control Option**

The development and growth of machines that automatically compute and control has created a need for engineering technicians with training in electronic computer and control technology. Because of the demand for technicians in this field, Southern Tech has introduced an option in electronic computer and control. Graduates of this option should be well prepared to program, plan, select, and supervise installation, or maintain electronic computer and control systems.

Since the first-year courses of the Electronic Computer and Control option and the Electronics option are identical, a student may choose either option at the beginning of his or her second year of study.

ASSOCIATE DEGREE PROGRAM**First Year**

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Hist	251 or 252	U.S. History	5	0	5
Math	111	Algebra	5	0	5
Total			13	6	15
<i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
Engl	221	Public Speaking	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			15	2	16
<i>Third Quarter</i>					
EET	111	Circuit Analysis	5	3	6
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			17	5	19

ELECTRICAL ENGINEERING TECHNOLOGY**Electronic Computer and Control Option****ASSOCIATE DEGREE PROGRAM****Second Year**

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
EET	272	Introduction to Semiconductor and Electronic Devices	5	3	6
EET	274	Circuit Analysis	5	3	6
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	8	17
<i>Second Quarter</i>					
EET	230	Electromechanical Devices	2	3	3
EET	300	Semiconductor Circuits and Devices	5	3	6
EET	301	Computer Fundamentals	3	3	4
EET	302	Circuit Analysis	3	3	4
Total			13	12	17
<i>Third Quarter</i>					
EET	321	Machine and Symbolic Programming	5	3	6
EET	339	Electronic Applications	3	3	4
EET	340	Pulse and Digital Circuits and Applications	5	3	6
Engl	231	Technical Writing	3	0	3
Total			16	9	19

ELECTRICAL ENGINEERING TECHNOLOGY

Electronics Option

At the time Southern Tech was founded, there was a marked difference between electronics and electric power. With the advancement of electrical science, however, this difference has greatly diminished. Therefore, a core of common courses has been devised to meet the basic requirements of both the electronics and the power industries.

To provide the flexibility to fill the wide variety of jobs available to our graduates, Southern Tech has developed a core curriculum in electronics.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Hist	251 <i>or</i>				
	252	U.S. History	5	0	5
Math	111	Algebra	5	0	5
Total			13	6	15

Second Quarter

Engl	112	Composition and Rhetoric	3	0	3
Engl	221	Public Speaking	3	0	3
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			15	2	16

Third Quarter

EET	111	Circuit Analysis	5	3	6
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			17	5	19

ELECTRICAL ENGINEERING TECHNOLOGY

Electronics Option

ASSOCIATE DEGREE PROGRAM

Second Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
EET	272	Introduction to Semiconductor and Electronic Devices	5	3	6
EET	274	Circuit Analysis	5	3	6
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	8	17
<i>Second Quarter</i>					
EET	237	Electromechanical Layout and Fabrication	2	3	3
EET	300	Semiconductor Circuits and Devices	5	3	6
EET	301	Computer Fundamentals	3	3	4
EET	302	Circuit Analysis	3	3	4
Total			13	12	17
<i>Third Quarter</i>					
EET	339	Electronic Applications	3	3	4
EET	340	Pulse and Digital Circuits and Applications	5	3	6
EET	350	Electronic Circuits and Applications	5	3	6
Engl	231	Technical Writing	3	0	3
Total			16	9	19

ELECTRICAL ENGINEERING TECHNOLOGY**Nuclear Safety Option**

This program provides the background necessary for a young man or woman who is interested in a career as an engineering technologist in the fields of electronics and nuclear safety.

A foundation is given in electronics, radioisotopes, nuclear instrumentation, and health physics (safety practices). Theory is balanced with practical experimental procedures and techniques taught in the laboratories at Southern Tech and at the nuclear reactors of Georgia Tech.

This option requires the student to be proficient in electronics and also knowledgeable in radiation physics, principles of health physics, and applied health physics. Graduates will be qualified for technological positions in development, testing, monitoring, research, and maintenance in the nuclear field. Such positions as radiation-safety technologist, radiation-instrument technologist, and health-physics monitor can be filled by the graduate.

ASSOCIATE DEGREE PROGRAM**First Year**

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
Chem	201	General Chemistry	4	2	5
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Math	111	Algebra	5	0	5
Total			12	8	15
<i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
Engl	221	Public Speaking	3	0	3
Math	112	Trigonometry	5	0	5
Math	215	Computer Programming	3	0	3
Phys	201	Mechanics	4	2	5
Total			18	2	19
<i>Third Quarter</i>					
EET	111	Circuit Analysis	5	3	6
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			14	5	16

ELECTRICAL ENGINEERING TECHNOLOGY

Nuclear Safety Option

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
EET	272	Introduction to Semiconductor and Electronic Devices	5	3	6
EET	274	Circuit Analysis	5	3	6
Phys	375	Introduction to Nuclear Radiation	4	2	5
Total			14	8	17

Second Quarter

EET	300	Semiconductor Circuits and Devices	5	3	6
EET	301	Computer Fundamentals	3	3	4
EET	302	Circuit Analysis	3	3	4
Phys	377	Principles of Health Physics	4	0	4
Total			15	9	18

Third Quarter

EET	340	Pulse and Digital Circuits and Applications	5	3	6
Engl	231	Technical Writing	3	0	3
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Phys	379	Applied Health Physics	3	2	4
Total			15	7	18

ELECTRICAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
**Chem	201	General Chemistry	4	2	5
EET	323	Computer-Programming Applications	3	3	4
Engl	200	Language and Logic	3	0	3
Math	201 <i>or</i> 254	Calculus	5	0	5
Total			15	5	17
<i>Second Quarter</i>					
EET	307	Electric Transmission	5	3	6
Psyc	112	Psychology	5	0	5
		*Electives			6
Total					17
<i>Third Quarter</i>					
EET	308	Antennas and Microwaves	5	3	6
Engl	211 <i>or</i> 212	Man and Literature	5	0	5
		*Electives			6
Total					17

NOTE: A grade of "C" or higher is required in all EET courses prescribed for the four-year bachelor degree program.

*16 hours of electives must be in EET 300- and 400-level courses.

15 hours of technical electives selected from any combination of 200-, 300-, or 400-level courses having a degree-granting department designation offered by any ECPD-accredited technology degree program other than Electrical Engineering Technology. A student may elect to meet 13 hours of this requirement by taking the Physics 375, 377, 379 sequence.

14 hours of free electives may be selected by the student (exclusive of ROTC and Physical Education).

**Graduates of the Nuclear Safety Option must substitute Hist 251 or 252 for Chem 201.

ELECTRICAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

			Hours Per Week		Credit
			Class	Lab	Hours
<i>First Quarter</i>					
Econ	220	Economics	5	0	5
EET	406	Survey of Electric Machinery	3	3	4
		*Electives			<u>7</u>
		Total			16
<i>Second Quarter</i>					
Hist	114 or				
	115	Western Civilization	5	0	5
		*Electives			<u>10</u>
		Total			15
<i>Third Quarter</i>					
		*Electives			<u>16</u>
		Total			16

NOTE: A grade of "C" or higher is required in all EET courses prescribed for the four-year bachelor degree program.

*16 hours of electives must be in EET 300- and 400-level courses.

15 hours of technical electives selected from any combination of 200-, 300-, or 400-level courses having a degree-granting department designation offered by any ECPD-accredited technology degree program other than Electrical Engineering Technology. A student may elect to meet 13 hours of this requirement by taking the Physics 375, 377, 379 sequence.

14 hours of free electives may be selected by the student (exclusive of ROTC and Physical Education).

FIRE SCIENCE TECHNOLOGY

A student in Fire Science Technology is educated primarily for the fire department supervision; however, the very nature of the curriculum provides him or her with a comprehensive background in fire prevention and extinguishment techniques and so equips him or her for entry positions in the fire services and in related fire-protection agencies and organizations.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
Engl	111	Composition and Rhetoric	3	0	3
FST	101	Introduction to Fire Protection	3	0	3
FST	111	Fire Department Organization and Administration	3	0	3
FST	144	Building Construction and Blue Print Reading	3	2	4
Math	111	Algebra	5	0	5
Total			17	2	18
 <i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
FST	102	Extinguishers and Alarms	3	3	4
FST	104	Fire Safety Codes and Material Rating	3	0	3
Math	112	Trigonometry	5	0	5
Total			14	3	15
 <i>Third Quarter</i>					
Chem	201	General Chemistry	4	2	5
FST	106	Industrial Fire Protection	3	3	4
FST	201	Firefighting Tactics and Strategy	2	3	3
Hist	251 <i>or</i> 252	U.S. History	5	0	5
Total			14	8	17

FIRE SCIENCE TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
Engl	221	Public Speaking	3	0	3
FST	211	Hydraulics and Water Distribution	3	3	4
FST	213	Chemistry of Hazardous Materials	4	3	5
Phys	201	Mechanics	4	2	5
Total			14	8	17

Second Quarter

FST	233	Supervision and Human Relations	3	0	3
FST	234	Fixed Extinguishing Systems	3	3	4
Hist	114	Western Civilization I	5	0	5
*Technical Electives					3
Total					15

Third Quarter

Engl	231	Technical Writing	3	0	3
FST	203	Inspection Principles	3	3	4
Free Electives					5
*Technical Electives					2
Total					14

*Technical electives must be selected from the following:

EET 482 Electrical Controls	FST 243 Fire Department Safety
FST 202 Transportation Hazards	IET 350 Industrial Safety
FST 214 Fire Investigation and Law	

INDUSTRIAL ENGINEERING TECHNOLOGY

The field of Industrial Engineering Technology offers the student a challenging career in business, industry, or government. Industrial Engineering Technologists deal primarily with the efficient management of money, materials, and manpower in a business environment. They solve problems dealing with the location and layout of plant facilities, materials handling, work-station design, wage and salary payment plans, quality control, personnel selection and placement, occupational safety and health, and economic cost studies. To enable the graduate to solve such a wide variety of management problems, the curriculum of study will be broad and interesting.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
Engl	111	Composition and Rhetoric	3	0	3
IET	119	Introduction to Industrial Engineering Technology	5	0	5
Math	111	Algebra	5	0	5
MET	111	Manufacturing Processes	5	0	5
Total			18	0	18
 <i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
IET	130	Data Processing	3	2	4
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			15	4	17
 <i>Third Quarter</i>					
Draw	111	Engineering Drawing I	0	6	2
Engl	231	Technical Writing	3	0	3
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			15	8	18

INDUSTRIAL ENGINEERING TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
IMT	310	Accounting and Cost Accounting	5	0	5
IET	424	Principles of Engineering Economy	5	0	5
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	2	15
<i>Second Quarter</i>					
Engl	221	Public Speaking	3	0	3
IET	227	Industrial Statistics I	5	0	5
IET	322	Motion and Time Study	4	2	5
IET	350	Industrial Safety	2	2	3
Total			14	4	16
<i>Third Quarter</i>					
Hist	251 or 252	U.S. History	5	0	5
IET	326	Wage and Salary Administration	3	0	3
IET	334	Production and Inventory Control	3	0	3
IET	339	Statistical Quality Control	3	0	3
IET	340	Plant Layout and Materials Handling	2	4	4
Total			16	4	18

INDUSTRIAL ENGINEERING TECHNOLOGY**Industrial Management Option**

The Industrial Management Option is a companion program to the curriculum in Industrial Engineering Technology. In this option, however, major emphasis is placed on the management functions of marketing, finance, and personnel supervision. Graduates who earn the associate degree in this option generally find initial employment as first-line supervisors or administrators in business or industrial enterprises. At the completion of the management option, the student may enter the four-year IET program without loss of credit.

ASSOCIATE DEGREE PROGRAM**First Year**

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
IET	119	Introduction to Industrial Engineering Technology	5	0	5
IET	350	Industrial Safety	2	2	3
Math	111	Algebra	5	0	5
Total			15	8	18
<i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
Engl	221	Public Speaking	3	0	3
Math	112	Trigonometry	5	0	5
Math	215	Computer Programming	3	0	3
Phys	201	Mechanics	4	2	5
Total			18	2	19
<i>Third Quarter</i>					
Engl	231	Technical Writing	3	0	3
IMT	310	Accounting and Cost Accounting	5	0	5
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			17	2	18

INDUSTRIAL ENGINEERING TECHNOLOGY**Industrial Management Option****ASSOCIATE DEGREE PROGRAM****Second Year**

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
Econ	220	Economics	5	0	5
IET	227	Industrial Statistics I	5	0	5
IMT	343	Business Law I	3	0	3
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			17	2	18
<i>Second Quarter</i>					
Hist	251 or 252	U.S. History	5	0	5
IET	322	Motion and Time Study	4	2	5
IMT	329	Personnel and Labor Relations	5	0	5
IMT	341	Finance	3	0	3
Total			17	2	18
<i>Third Quarter</i>					
IET	334	Production and Inventory Control	3	0	3
IET	340	Plant Layout and Materials Handling	2	4	4
IMT	345	Marketing	3	0	3
IET	424	Principles of Engineering Economy	5	0	5
Total			13	4	15

INDUSTRIAL ENGINEERING TECHNOLOGY**

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Chem	201	General Chemistry	4	2	5
Econ	220	Economics	5	0	5
Math	201 <i>or</i>				
	254	Calculus	5	0	5
*MET	323	Statics	3	0	3
Total			17	2	18
<hr/>					
<i>Second Quarter</i>					
MET	322	Thermodynamics	5	0	5
*MET	324	Strength of Materials	3	3	4
Psyc	112	Psychology	5	0	5
		Free Electives			5
Total					19
<hr/>					
<i>Third Quarter</i>					
EET	482	Electrical Controls	5	0	5
MET	301	Fluid Mechanics	5	0	5
		Free Electives			5
Total					15

*The student may elect CET 313 and CET 314 in lieu of these two MET courses. He or she must either take both MET courses or both CET courses.

**Students who have completed the Industrial Management Option Associate Degree Program may enter this program without loss of credit. They will be required to take IET 130, IET 326, IET 339, and MET 111 in place of Econ 220, IMT 329, and IMT 343.

INDUSTRIAL ENGINEERING TECHNOLOGY**

BACHELOR DEGREE PROGRAM

Fourth Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
Engl	211 or				
	212	Man and Literature	5	0	5
IET	327	Industrial Statistics II	3	0	3
IET	465	Synthetic Work Measurement	4	2	5
		Free Electives			4
Total					17

Second Quarter

Engl	200	Language and Logic	3	0	3
Hist	114 or				
	115	Western Civilization	5	0	5
IET	344	Industrial Operations Research	5	0	5
		Free Electives			3
Total					16

Third Quarter

IMT	329	Personnel and Labor Relations	5	0	5
IMT	343	Business Law I	3	0	3
IET	401	Project Planning and Control	2	2	3
		Free Electives			5
Total					16

**Students who have completed the Industrial Management Option Associate Degree Program may enter this program without loss of credit. They will be required to take IET 130, IET 326, IET 339, and MET 111 in place of Econ 220, IMT 329, and IMT 343.

INDUSTRIAL ENGINEERING TECHNOLOGY

Industrial Distribution Option

The Industrial Distribution Option of the Industrial Engineering Technology prepares the student for sales, sales management, and mid-management positions with wholesale distributors who purchase, warehouse, sell, distribute, and service a wide variety of industrial products. The day-to-day challenges faced by the industrial distributor requires him or her to be a professional with many capabilities. To fulfill this demand, the program of study includes study in management, industrial engineering, communications, data processing, and marketing.

This is one of the few industrial distribution programs offered in the United States and the only one offered in the Southeast.

BACHELOR DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit Hours</i>
			<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i>					
Engl	111	Composition and Rhetoric	3	0	3
IET	119	Introduction to Industrial Engineering Technology	5	0	5
Math	111	Algebra	5	0	5
Psyc	112	Psychology	5	0	5
Total			18	0	18
<i>Second Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
Hist	114 <i>or</i> 115	Western Civilization	5	0	5
Math	112	Trigonometry	5	0	5
Phys	201	Mechanics	4	2	5
Total			17	2	18
<i>Third Quarter</i>					
Engl	221	Public Speaking	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
MET	111	Manufacturing Processes	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
Total			17	2	18

INDUSTRIAL ENGINEERING TECHNOLOGY

Industrial Distribution Option

BACHELOR DEGREE PROGRAM

Second Year

<i>First Quarter</i>			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
IET	227	Industrial Statistics	5	0	5
Math	245	Finite Math	5	0	5
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			14	2	15
<i>Second Quarter</i>					
Draw	111	Engineering Drawing I	0	6	2
Econ	220	Economics	5	0	5
Hist	251 <i>or</i> 252	U.S. History Technical Electives	5	0	5 5
Total			14	6	17
<i>Third Quarter</i>					
Engl	211 <i>or</i> 212	Man and Literature	5	0	5
IMT	310	Accounting and Cost Accounting Technical Electives	5	0	5 5
Total			10	0	15

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

INDUSTRIAL ENGINEERING TECHNOLOGY

Industrial Distribution Option

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
IET	322	Motion and Time Study	4	2	5
IET	326	Wage and Salary Administration	3	0	3
IMT	342	Small Business Management	3	0	3
IET	350	Industrial Safety	2	2	3
		Technical Electives			5
Total					19
<i>Second Quarter</i>					
Chem	201	General Chemistry	4	2	5
IET	130	Data Processing	3	2	4
IET	334	Production and Inventory Control	3	0	3
IMT	345	Marketing	3	0	3
		Technical Electives			3
Total					18
<i>Third Quarter</i>					
IMT	329	Personnel and Labor Relations	5	0	5
		Free Electives			3
		Technical Electives			8
Total					16

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

INDUSTRIAL ENGINEERING TECHNOLOGY

Industrial Distribution Option

BACHELOR DEGREE PROGRAM

Fourth Year

			Hours Per Week		Credit Hours
			Class	Lab	
<i>First Quarter</i>					
Engl	231	Technical Writing	3	0	3
IET	424	Principles of Engineering Economy	5	0	5
IET	430	Modern Industry	1	4	3
		Free Electives			5
Total					16
<i>Second Quarter</i>					
Engl	400	Communication in Organization	3	0	3
IET	401	Project Planning and Control	2	2	3
		Free Electives			5
		Technical Electives			5
Total					16
<i>Third Quarter</i>					
Engl	200	Language and Logic	3	0	3
IMT	343	Business Law I	3	0	3
IET	434	Industrial Distribution	5	0	5
IET	445	Distribution Systems	3	0	3
		Free Electives			3
Total					17

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

MECHANICAL ENGINEERING TECHNOLOGY

Mechanical Engineering Technology is concerned with the practical aspects of: generation, transmission, and applications of heat and other mechanical forms of energy; the design of tools and machines; and manufacturing processes and techniques. The Mechanical Engineering Technology curriculum combines basic sciences and mathematics with engineering technology to prepare the graduate to meet the needs of today's and tomorrow's technological society.

ASSOCIATE DEGREE PROGRAM

First Year

<i>First Quarter</i>			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Hist	251 <i>or</i>				
	252	U.S. History	5	0	5
Math	111	Algebra	5	0	5
MET	111	Manufacturing Processes	5	0	5
MET	142	Metal Cutting Operations I	1	3	2
Total			16	3	17
<i>Second Quarter</i>					
Draw	111	Engineering Drawing I	0	6	2
Engl	111	Composition and Rhetoric	3	0	3
Math	112	Trigonometry	5	0	5
MET	143	Metal Cutting Operations II	1	3	2
MET	314	Engineering Materials	4	3	5
Total			13	12	17
<i>Third Quarter</i>					
Engl	112	Composition and Rhetoric	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
MET	117	Engineering Drawing II	0	6	2
MET	144	Metal Joining	1	3	2
Phys	201	Mechanics	4	2	5
Total			13	11	17

MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Engl	221	Public Speaking	3	0	3
Math	215	Computer Programming	3	0	3
MET	323	Statics	3	0	3
MET	341	Jig and Fixture Design	2	3	3
Phys	202	Electricity and Magnetism	4	2	5
Total			15	5	17
<i>Second Quarter</i>					
MET	324	Strength of Materials	3	3	4
MET	332	Metrology	3	3	4
MET	362	Introduction to Design	1	3	2
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
Total			11	11	15
<i>Third Quarter</i>					
EET	482	Electrical Controls	5	0	5
Engl	231	Technical Writing	3	0	3
MET	319	Thermodynamics I	5	0	5
MET	325	Machine Design I	3	2	4
MET	373	Instruments Laboratory	0	3	1
Total			16	5	18

MECHANICAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
Engl	211 or				
	212	Man and Literature	5	0	5
Math	201 or				
	254	Calculus	5	0	5
MET	320	Thermodynamics II	5	0	5
MET	333	Numerical Control	2	3	3
Total			17	3	18
<i>Second Quarter</i>					
Chem	201	General Chemistry	4	2	5
Draw	311	Descriptive Geometry	1	5	3
Engl	200	Language and Logic	3	0	3
MET	301	Fluid Mechanics	5	0	5
Total			13	7	16
<i>Third Quarter</i>					
MET	328	Kinematics	3	2	4
Psyc	112	Psychology	5	0	5
		*Major Elective			4
		Technical Electives			5
Total					18

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

*Major electives must include all courses in Group A or Group B or Group C:

Group A

MET 426	Machine Design II
MET 440	Tool and Die Design
MET 441	Manufacturing Operations

Group B

MET 346	Refrigeration
MET 347	Air Conditioning I
MET 472	Plant and Power Applications

Group C

MET 426	Machine Design II
MET 428	Dynamics of Machinery
MET 472	Plant and Power Applications

Courses from either of the other groups may be used as free or technical electives.

MECHANICAL ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

		<i>Hours Per Week</i>		<i>Credit</i>
		<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>				
Hist	114 or			
	115	5	0	5
	Western Civilization			8
	*Major Electives			3
	Science Electives			<hr/>
	Total			16
<i>Second Quarter</i>				
Econ	220	5	0	5
	Economics			6
	Free Electives			5
	Technical Electives			<hr/>
	Total			16
<i>Third Quarter</i>				
IET	424	5	0	5
	Principles of Engineering			6
	Economy			6
	Free Electives			<hr/>
	Technical Electives			17
	Total			

NOTE: A technical elective is any course with a degree-granting department designation, i.e., AET, EET, IET, etc., or any of the following:

Biol 201	Geol 202	Phys 371
Biol 211	Math 205	Phys 372
Chem 300	Math 306	Phys 375
Chem 321	Math 315	Phys 377
Geol 201	Phys 311	Phys 379

*Major electives must include all courses in Group A or Group B or Group C:

Group A

- MET 426 Machine Design II
- MET 440 Tool and Die Design
- MET 441 Manufacturing Operations

Group B

- MET 346 Refrigeration
- MET 347 Air Conditioning I
- MET 472 Plant and Power Applications

Group C

- MET 426 Machine Design II
- MET 428 Dynamics of Machinery
- MET 472 Plant and Power Applications

Courses from either of the other groups may be used as free or technical electives.

TEXTILE ENGINEERING TECHNOLOGY

Students in Textile Engineering Technology are trained in the three areas common to all Southern Tech engineering technologists. These are communications, basic sciences, and supervision.

In the fourth area, Textiles, the student is given a broad program of courses in textile manufacturing.

ASSOCIATE DEGREE PROGRAM

First Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
Engl	111	Composition and Rhetoric	3	0	3
Hist	251	<i>or</i>			
	252	U.S. History	5	0	5
Math	111	Algebra	5	0	5
TET	111	Fibers and Fabrics	3	0	3
Total			16	0	16
 <i>Second Quarter</i>					
Chem	201	General Chemistry	4	2	5
Engl	112	Composition and Rhetoric	3	0	3
Math	112	Trigonometry	5	0	5
TET	312	Industrial Photography	2	3	3
Total			14	5	16
 <i>Third Quarter</i>					
Draw	111	Engineering Drawing I	0	6	2
Engl	231	Technical Writing	3	0	3
Math	215	Computer Programming	3	0	3
Math	253	Analytic Geometry and Calculus	5	0	5
Phys	201	Mechanics	4	2	5
Total			15	8	18

TEXTILE ENGINEERING TECHNOLOGY

ASSOCIATE DEGREE PROGRAM

Second Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Engl	221	Public Speaking	3	0	3
IET	227	Industrial Statistics I	5	0	5
Phys	202	Electricity and Magnetism	4	2	5
TET	224	Yarn Manufacturing I	3	0	3
Total			15	2	16
<i>Second Quarter</i>					
IMT	310	Accounting and Cost Accounting	5	0	5
IET	322	Motion and Time Study	4	2	5
Phys	203	Heat, Sound, Light, and Modern Physics	4	2	5
TET	225	Yarn Manufacturing II	3	0	3
Total			16	4	18
<i>Third Quarter</i>					
AMET	243	Survey of Apparel Manufacturing	3	0	3
TET	262	Textile Chemistry and Dyeing	3	0	3
TET	353	Weaving I	3	0	3
TET	354	Weaving II	3	0	3
TET	355	Textile Laboratories	0	6	2
TET	444	Testing and Quality Control	3	3	4
Total			15	9	18

TEXTILE ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Third Year

			<i>Hours Per Week</i>		<i>Credit</i>
<i>First Quarter</i>			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
Econ	220	Economics	5	0	5
IMT	316	Principles of Management	3	0	3
Math	201 <i>or</i>				
	254	Calculus	5	0	5
TET	364	Principles of Knitting	3	0	3
Total			16	0	16
<i>Second Quarter</i>					
Engl	211 <i>or</i>				
	212	Man and Literature	5	0	5
IET	339	Statistical Quality Control	3	0	3
		Free Electives			5
		Science Electives			3
Total					16
<i>Third Quarter</i>					
Chem	321	Organic Chemistry	4	3	5
Engl	200	Language and Logic	3	0	3
IET	334	Production and Inventory Control	3	0	3
		Free Electives			5
Total					16

TEXTILE ENGINEERING TECHNOLOGY

BACHELOR DEGREE PROGRAM

Fourth Year

			<i>Hours Per Week</i>		<i>Credit</i>
			<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter</i>					
IET	340	Plant Layout and Materials Handling	2	4	4
IMT	341	Finance	3	0	3
Psyc	112	Psychology	5	0	5
		Free Electives			4
		Total			16
<i>Second Quarter</i>					
Hist	114 or 115	Western Civilization	5	0	5
IMT	343	Business Law I	3	0	3
IET	350	Industrial Safety	2	2	3
		Free Electives			4
		Total			15
<i>Third Quarter</i>					
IMT	329	Personnel and Labor Relations	5	0	5
IET	424	Principles of Engineering Economy	5	0	5
MET	433	Industrial Instrumentation and Control	2	3	3
TET	462	Dyeing Man-Made Fibers	3	3	4
		Total	15	6	17

TEXTILE MANAGEMENT

The Textile Management program is designed for people aspiring to be middle-line supervisors in the textile industry and for current supervisors who desire to be more effective in their jobs. It is offered in cooperation with other colleges in the University System of Georgia and all courses will be taught at the local institution so that participants will be able to live at home and continue working in their present jobs. The curriculum provides a basic background in mathematics, science, business, economics, and textile technology; develops communication and supervisory skills; and introduces management techniques and textile technological developments.

ASSOCIATE DEGREE PROGRAM

(Offered in cooperation with other units of the
University System of Georgia)

	<i>Quarter Hours</i>
Humanities	15
Social Sciences	15
Mathematics*	10
Natural Science*	10
Business Administration	25
Textile Management (select any five of the following):	25
TMT 101 Textile Industry Survey	5
TMT 102 Fiber Physics	5
TMT 103 Yarn Processing	5
TMT 104 Fabric Structure, Processing, and Properties	5
TMT 105 Chemical Processing of Textile Materials	5
TMT 106 Analysis of Textile Materials	5
Physical Education	<u>3</u>
Total	103

NOTE: The Textile Management program is currently offered at Gordon Junior College and Columbus College.

*Students enrolled in the Textile Management program who desire transfer into the baccalaureate programs in Engineering Technology at Southern Tech must complete college algebra, statistics, General Chemistry I, and General Chemistry II.



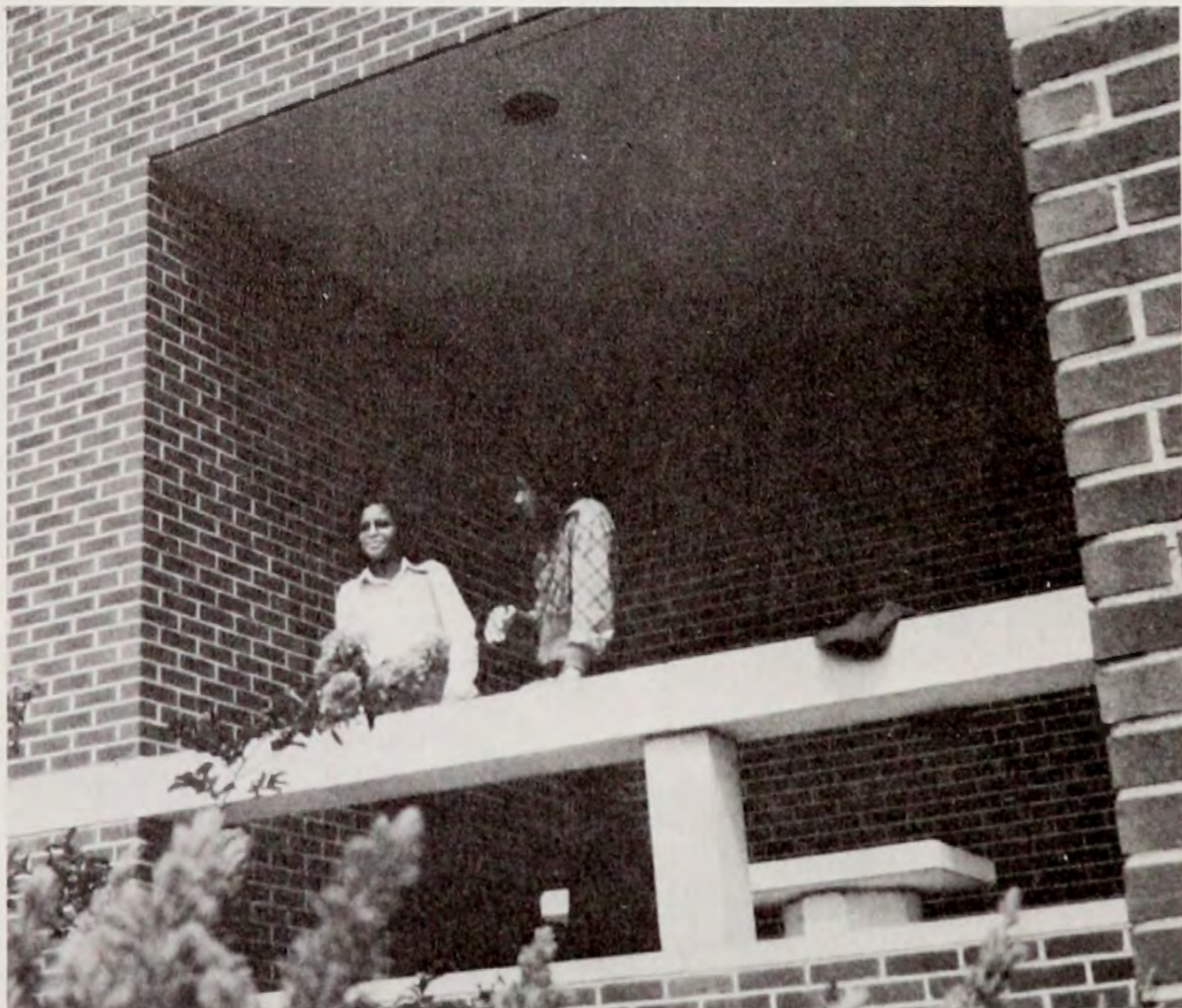
MILITARY SCIENCE-AIR FORCE Air Force Reserve Officer Training Corps

FOUR-YEAR PROGRAM

Students enrolled in the General Military Course (GMC) incur no military obligation and must compete for entry into the Professional Officers Course (POC), which is normally taken during the last two years of college. Selection is based upon the results of an Air Force medical examination, an Officer Qualifying Test, SAT/ACT scores, and a personal interview. Cadets normally attend a four-week field training session conducted at an Air Force base between their sophomore and junior years. Students accepted for the POC become members of the Air Force Reserve and receive a \$100 per month tax-free subsistence allowance.

TWO-YEAR PROGRAM

The two-year program and the last two years of the four-year program are identical in academic content. The basic requirement for entry into this program is that the student have two academic years remaining in school. This may be at the undergraduate or graduate level, or a combination of the two. Selection of two-year applicants is predicated upon the same criteria as four-year program cadets. In addition, candidates must successfully complete a six-week field training course at an Air Force base during the summer preceding their enrollment. Applicants enter the POC upon their return to campus.



MILITARY SCIENCE-AIR FORCE

Air Force Reserve Officer Training Corps

First Year

		Hours Per Week		Credit Hours
		Class	Lab	
<i>First Quarter</i> –				
AS 1610	Introduction to Today's Air Force	1	1	1
<i>Second Quarter</i> –				
AS 1620	Air Force Operational Activities	1	1	1
<i>Third Quarter</i> –				
AS 1630	Air Force Support Activities	1	1	1

Second Year

<i>First Quarter</i> –				
AS 2610	Air Power, the Early Years	1	1	1
<i>Second Quarter</i> –				
AS 2620	Air Power, WW II to Korea	1	1	1
<i>Third Quarter</i> –				
AS 2630	Air Power, the Later Years	1	1	1

Third Year

<i>First Quarter</i> –				
AS 3310	Air Force Management	3	1	3
<i>Second Quarter</i> –				
AS 3320	Air Force Leadership	3	1	3
<i>Third Quarter</i> –				
AS 3330	Air Force Jurisprudence	3	1	3

Fourth Year

<i>First Quarter</i> –				
AS 4210	Civil Military Relations	3	1	3
<i>Second Quarter</i> –				
AS 4220	U.S. Nuclear Defense Strategy	3	1	3
<i>Third Quarter</i> –				
AS 4230	U.S. Defense Policy	3	1	3

MILITARY SCIENCE-ARMY

BASIC COURSE CURRICULUM

The basic course consists of six Military Science (MS) courses which are normally taken in the following sequence.

First Year

<i>First Quarter</i> –		<i>Hours Per Week</i>		<i>Credit Hours</i>
		<i>Class</i>	<i>Lab</i>	
MS 110	Orientation: The Military Role in Perspective	1	1	1
<i>Second Quarter</i> –				
MS 120	Terrain Analysis and Land Navigation	1	1	1
<i>Third Quarter</i> –				
MS 104*	Leadership Development	0	1	0

Second Year

<i>First Quarter</i> –				
MS 202*	Military Skills	1	1	0
<i>Second Quarter</i> –				
MS 220	Seminar on Communications and Instructional Methods	2	1	1
<i>Third Quarter</i> –				
MS 204*	Leadership Development	0	2	0

*Optional courses may be substituted for MS 104, MS 202, or MS 204.

MILITARY SCIENCE-ARMY**Advanced Course**

Students who have demonstrated a high leadership potential and meet the following requirements may be selected by the Professor of Military Science for enrollment in the advanced course: (1) complete the basic course or basic summer camp; (2) pass the ROTC Qualifying Examination or the equivalent; (3) pass the officer physical examination; (4) normally have six academic quarters remaining; (5) be recommended by a board of officers; (6) and if selected, enlist in the enlisted reserves. When selected for the advanced course, the student must sign a written contract agreeing to meet certain requirements as to the completion of the course including one summer camp and acceptance of a commission if tendered. While enrolled in the advanced course, students receive a subsistence allowance of \$100 a month, which is nontaxable.

ADVANCED COURSE CURRICULUM

The advanced course consists of six military-science courses.

Third Year

		<i>Hours Per Week</i>		<i>Credit Hours</i>
		<i>Class</i>	<i>Lab</i>	
<i>First Quarter</i> –				
MS 300	Analysis of Command and Leadership	2	1	2
<i>Second Quarter</i> –				
MS 310	Tactical Decision Making	3	1	3
<i>Third Quarter</i> –				
MS 304	Leadership Development	0	1	0

Fourth Year

<i>First Quarter</i> –				
MS 400	The Military Team and the Junior Officer	3	1	3
<i>Second Quarter</i> –				
MS 410	Military Administrative Operations	2	1	2
<i>Third Quarter</i> –				
MS 404	Leadership Development	0	1	0

MILITARY SCIENCE-NAVY
Naval Officer Education Program

First Year

		<i>Hours Per Week</i>		<i>Credit</i>
		<i>Class</i>	<i>Lab</i>	<i>Hours</i>
<i>First Quarter –</i>				
NS 1001	Naval Organization and Sea Power	2	1	2
<i>Second Quarter –</i>				
NS 1002	Naval Ship Systems I	2	1	2
<i>Third Quarter –</i>				
NS 1003	Naval Ship Systems II	2	1	2

Second Year

<i>First Quarter –</i>				
NS 2001	Naval Management	2	1	1
<i>Second Quarter –</i>				
NS 2012	Sea Power and Maritime Affairs	2	1	2
<i>Third Quarter –</i>				
NS 2003	Military Law	2	1	1

Third Year

<i>First Quarter –</i>				
NS 3001	Navigation I	3	2	3
<i>Second Quarter –</i>				
NS 3002	Navigation II	3	2	3
<i>Third Quarter –</i>				
NS 3003	Naval Operations	3	2	3

Fourth Year

<i>First Quarter –</i>				
NS 4001	Naval Weapons Systems I	3	1	3
<i>Second Quarter –</i>				
NS 4002	Naval Weapons Systems II	3	1	3
<i>Third Quarter –</i>				
NS 4003	Naval Personnel Administration	3	1	3

Course Descriptions

Course descriptions are arranged in alphabetical-numerical order. The numbers shown after the title of the course indicate (in sequence) the number of hours in class per week, the number of hours in laboratory per week, and the number of credit hours for the course. Course prerequisites are also specified.

APPAREL ENGINEERING TECHNOLOGY

AMET 243 Survey of Apparel Manufacturing 3-0-3

Apparel engineering and manufacturing from planning and receipt of raw materials to the distribution of the finished garment. Topics include employee selection and training, pattern analysis, machine evaluation and selection, cutting-room analysis, apparel production planning, and pressing and finishing.

AMET 261 Survey of Textile Processes 3-0-3

Covers the basic textile designs, fabric properties, and the textile processes from raw material through dyeing.

AMET 262 Employee Selection and Training 3-0-3

Principles of employee testing, selection, and training in the apparel industry. Emphasis will be given to instructional methods in training and management follow-up necessary to achieve job proficiency. Areas of interviewing and initial orientation are covered.

AMET 355 Fibers, Fabrics, and Finishes 5-0-5

Prerequisite: Chem 201

How the mechanical and chemical properties of fibers dictate the natures of fabrics. Dyestuffs and the various minimum-care finishes are examined for their roles in today's fabric arrays.

AMET 363 Pattern Analysis and Drafting 2-6-4

Prerequisite: Draw 111

The theory, geometric principles, and methods of drafting patterns for apparel and allied products. Includes developing patterns by draping and places emphasis on analysis and interpretation of samples, fashion sketches, and photographs to determine the pattern requirements for the presentation of the designer's creation. The student develops complete sets of industrial patterns, including grading in accordance with accepted size ranges and specifications.

AMET 364 Machine Evaluation and Selection 4-3-5

Including studies of thread, stitch formation, seam application as it relates to the garment, and cost considerations in the selection of machinery. Presents a survey of industrial sewing machines, tabling, and auxiliary equipment for apparel products production as well as analyzing and evaluating sewing-machine attachments for their qualitative and quantitative potentials. Includes studies of the durability and style analysis of sewing quality and operative training methods. Stresses quality factors inherent to the price range.

AMET 368 Pressing and Finishing 2-3-3

Principles of shaping and pressing fabrics, including permanent press, with pressure, heat, and/or moisture. The course includes analyses of pressing, pleating, blocking, sponging, shrinking, fusing, boiler, and steam-distribution equipment.

Emphasizes the formulation of equipment and methods requirements to gain pressing quality at minimum cost. Covers final inspection, ticketing, and packaging.

AMET 383 Pattern Analysis and Drafting 2-0-2

The theory, geometric principles, and methods of drafting patterns for apparel and allied products. Includes developing patterns by draping and places emphasis on analysis and interpretation of samples, fashion sketches, and photographs to determine the pattern requirements for the presentation of the designer's creation. *Not for Apparel Engineering Technology Majors.*

AMET 384 Machine Evaluation and Selection 4-0-4

Includes studies of thread, stitch formation, seam application as it relates to the garment, and cost consideration in the selection of machinery. Presents a survey of industrial sewing machines, tabling, and auxiliary equipment for apparel products production as well as analyzing and evaluating sewing-machine attachments for their qualitative and quantitative potentials. Includes studies of the durability and style analysis of sewing quality and operative training methods. Stresses quality factors inherent to the price range. *Not for Apparel Engineering Technology Majors.*

AMET 388 Pressing and Finishing 2-0-2

Principles of shaping and pressing fabrics, including permanent press, with pressure, heat, and/or moisture. The course includes analyses of pressing, pleating, blocking, sponging, shrinking, fusing, boiler, and steam-distribution equipment. Emphasizes the formulation of equipment and methods requirements to gain pressing quality at a minimum cost. Covers final inspection, ticketing, and packaging. *Not for Apparel Engineering Technology Majors.*

AMET 391-395 Special Topics variable credit – 1 to 5 hours

Prerequisite: Permission of the department head

Special problems selected by the department. Offered on a demand basis.

AMET 455 Material Utilization 5-0-5

Prerequisites: AMET 363, AMET 466, IET 339

A systematic appraisal of the factors governing economical fabric use, including: in-depth study of the relationship of pattern make-up to fabric consumption; the impact of width variation to total consumption; and the relationship of all fabric defects to total utilization.

AMET 465/IET 465 Synthetic Work Measurement 4-2-5

Prerequisite: IET 322 or consent of instructor

An in-depth study of Methods Time Measurement (MTM) synthetic time study. The use of MTM for methods improvement as well as time study is covered. The student will be given the opportunity to take the MTM Blue Card exam. Text: At the level of Karger and Bayha, *Engineered Work Measurement*.

AMET 466 Cutting-Room Analysis and Costing 3-6-5

Prerequisites: Math 111, AMET 261, IMT 316

Principles and methods of cutting raw materials used in apparel products and including preparatory processes related to cutting production. Presents basic principles and methods of calculating, designing, and making markets for apparel and allied products. Also includes the principles of market duplication and yardage estimation. Laboratory work deals with cost and quality factors and with equipment for examining, spreading, cutting, marking, and ticketing. Principles of miniature marking and material utilization are also covered in both class and lab sessions.

AMET 467 Apparel Production Planning

4-3-5

Prerequisites: AMET 363, AMET 364

Integrates all phases of apparel production by planning the best production cycle for an apparel item from receipt of raw material to the finished product.

AMET 486 Cutting-Room Analysis and Costing

3-0-3

Principles and methods of cutting raw materials used in apparel products and including preparatory processes related to cutting production. Presents basic principles and methods of calculating, designing, and making markets for apparel and allied products. Also includes the principles of marker duplication and yardage estimation. *Not for Apparel Engineering Technology Majors.*

AMET 487 Apparel Production Planning

4-0-4

Integrates all phases of apparel production by planning the best production cycle for an apparel item from receipt of raw material to the finished product. *Not for Apparel Engineering Technology Majors.*

AMET 491-495 Special Topics

variable credit – 1 to 5 hours

Prerequisite: Permission of the department head

Special problems selected by the department. Offered on a demand basis.

ARCHITECTURAL ENGINEERING TECHNOLOGY**AET 123 Architectural History I**

3-0-3

A study of the history of architecture from earliest times through the Romanesque period with an introduction to Gothic. Consideration is given to specific examples, to periods, structural methods, environmental influences, architectural art, and historical influences on today's work.

AET 143 Architectural Drawings and Materials

5-0-5

An introduction to the understanding and function of architectural working drawings and specifications, including the terminology of the construction industry. Also a study of materials used in building construction including their adaptation to good construction.

AET 300 Architectural Drawing Technique

2-9-5

Prerequisite: AET 143 or consent of instructor

An introduction to architectural drawing as applied to practice, to include architectural lettering, dimensioning, conventional symbols, line weights, detailing, and presentation drawing.

AET 301 Architectural Sketching

2-9-5

Prerequisite: AET 305

A study of mass, form, textures, and composition in relation to architectural and natural subjects. Freehand problems in charcoal, pencil, and ink are completed.

AET 302 Drawing and Painting

2-9-5

An introduction to studio work in drawing and painting. Principles of composition and color are applied in painting still life and landscape subjects.

AET 305 Perspective, Shades and Shadows

2-6-4

Prerequisite: AET 300

An introduction to the basic principles of the intersection of lines and planes with particular emphasis on the application of these principles to architectural forms. Use of the principles of descriptive geometry will be shown by drawing perspective views and by drawing shadows cast on architectural forms.

- AET 306 Dwelling House Design** 2-9-5
Prerequisite: AET 305
Introduces residential design and planning, and requires an original solution to a given residential concept. A presentation drawing, working drawings, and specifications are produced from the original design.
- AET 307 Architectural Working Drawings** 2-9-5
Prerequisite: AET 306
Preparation of working drawings taken from assigned preliminary building designs. Emphasis is placed on applied principles of architectural detailing, drafting, and building codes.
- AET 310 Model Building** 0-3-1
Prerequisite: AET 306
This course requires the building of a scale model, with exposed structure, from working drawings and specifications.
- AET 311 Specifications** 3-0-3
Prerequisite: AET 307 or concurrently
An in-depth study of construction specifications and their significance as a part of the contract documents for building projects. The course examines specification language, style, and format based on the 16-division uniform format as recommended by the Construction Specifications Institute.
- AET 312 Survey of City Planning** 5-0-5
An introduction to the field of city planning, including land-use planning and its implementation through zoning and subdivision regulations. Legal and social considerations in the planning process, urban renewal, transportation, economics, housing, and utilities are also discussed.
- AET 313 Building Materials** 3-0-3
Prerequisite: AET 307 or concurrently
A comprehensive study of building materials, their properties, and their uses in construction. Materials covered include concrete, masonry, metals, woods, paints, and specialties.
- AET 314 Building Codes** 3-3-4
Prerequisite: AET 307 or concurrently
An in-depth study of the various types of building codes, their history and development, legal status, and administration. Emphasis is placed on the use of the Code as a design tool in the development of working drawings.
- AET 317 Structural Steel Design** 3-3-4
Prerequisite: CET 314
A study of techniques used in engineering practice for analysis and design of structural elements used in buildings. Design procedures for joists, beams, girders, columns, plates, and fastenings are presented, using the latest edition of *American Institute of Steel Construction* design specification. Principles of working-strength design are employed. Students develop individual design calculations for two building projects.
- AET 318 Reinforced Concrete Structures** 3-3-4
Prerequisites: CET 314, CET 316
A study of reinforced concrete structures, including load analysis, member size determination, and selection of required reinforcement, using the latest ACI Code for design. Consideration is given to the principles of continuity and to loading patterns necessary to develop maximum bending moments. Laboratory work consists of computations that parallel and augment the work in the classroom.

AET 319 Structural System Selection

3-3-4

Prerequisites: AET 317, AET 318

A study of factors governing the selection of various structural roof, wall, and floor-systems used in single and multistory buildings. Structural systems are compared as to serviceability, economy, and construction.

AET 323 Architectural History II

3-0-3

Prerequisite: AET 123

The continued study of architectural development from the Gothic period through the industrial revolution, describing the causes and effects of climate, geography, and natural resources, coupled with the interworking of social, political, and religious factors.

AET 324 Art Appreciation

3-0-3

A course for technical students composed of slide presentations treating the major works of art and their significance in the development of Western Civilization.

AET 342 Methods of Construction

2-3-3

Prerequisites: AET 143, AET 344

A study of building-construction methods used in light and heavy framed structures. The course includes foundation excavation, pile driving, reinforcing steel placement, concrete placement, erection of structural steel and precast concrete, placement of building exterior panels, building utilities, and finishing. The laboratory time is devoted to job-site inspection.

AET 343 Mechanical and Electrical Equipment for Buildings

3-0-3

Prerequisite: Phys 203

An introductory study of mechanical and electrical systems used in buildings. Basic design of these systems and a familiarity with their components is presented, including water distribution, plumbing, heating and cooling, and electrical systems.

AET 344 Estimating

3-3-4

Prerequisite: AET 143, CET 121

A course designed to develop a method of preparing material and labor-quantity surveys from working drawings and specifications. A complete estimate of a building, usually a residence, is prepared including excavation, concrete, masonry, rough and finish carpentry, exterior and interior finishes, mechanical and electrical equipment, overhead, and profit.

AET 391-395 Special Topics

variable credit – 1 to 5 hours

Prerequisites: Junior standing and approval of the department head

These courses will be offered on the students' request to do creative or architectural research work.

AET 401 Building Design

2-9-5

Prerequisites: AET 301, AET 307, AET 411, AET 419

The design of three commercial buildings including the schematic designs and design development drawings. Site plans, floor plans, elevations, and cross sections are prepared for each project. A scale model or a rendered perspective is also required for each presentation.

AET 402 Architectural Rendering

2-9-5

Prerequisites: AET 301, AET 306

A study of the various techniques used to produce architectural presentation drawings. Perspective drawings of buildings rendered in pencil, ink, and color are completed.

- AET 411 Site Planning** 2-9-5
Prerequisite: CET 121
A study of the influences of building codes, climate, topography, geography, and geology on the design of the total external environment. Subjects covered include grading, drainage, road curves, parking requirements, utilities, and site selection and analysis.
- AET 412 Architectural Office Practice** 3-0-3
Prerequisite: AET 311 or consent of instructor
A study of professional ethics, state law governing the practice of architecture, architectural office procedures, and the contractual relationship between architect and clients.
- AET 417 Timber Structural Design** 3-3-4
Prerequisite: AET 317
A study of the modern use of timber as a structural material. Design procedures for timber beams, columns, trusses, laminated beams and frames, and plywood stressed-skin panels are presented using the latest design specifications.
- AET 419 Structural Design** 4-3-5
Prerequisites: AET 317, AET 318
A comprehensive structural-design of a building, utilizing the design and drafting procedures studied in this and other courses. Ultimate strength theory in steel, concrete, prestressed concrete and composite steel design procedures are introduced or reviewed. An individual structural design project, including structural drawings, is required of each student.
- AET 422/Hist 422 History of American Architecture** 5-0-5
Prerequisite: AET 323 or consent of instructor
A survey of American architecture from the Colonial period to the present. Emphasis on the 19th and 20th centuries. Jointly offered by the History and AET faculty. *This course may not be used as a technical elective.*
- AET 423 A History of Southeastern United States Architecture** 3-3-4
Prerequisites: AET 123, AET 323 or consent of instructor
A survey of architecture in the Southeastern U.S. from Pre-Columbian periods to the present. Emphasis is on structures, culture, climate, geology, topography, and their influences on the periods, and the influences of past efforts on today's architecture.
- AET 425 Recording Historic Buildings** 2-9-5
Prerequisites: AET 306, AET 301 or consent of instructor
A study of standard methods of recording buildings. Methodology is detailed in the lectures, and local historic buildings are recorded in the lab sessions. Detailed drawings of each building are prepared from measurements and photographs. Each completed project is transmitted to the National Archives to be preserved.
- AET 433 Construction Planning and Control** 3-6-5
Prerequisite: AET 342
A study of the fundamental planning and controlling management principles used in the building industry. Subjects covered include construction estimating methods, critical-path method (CPM) of scheduling, and use of digital computer in CPM. Laboratory exercises lead to a comprehensive team project.
- AET 441 Building Project Supervision** 2-3-3
Prerequisite: AET 342 or consent of instructor
A study of the procedures required to start and successfully complete a building-construction project as seen from the project superintendent's point of view.

Subjects covered include: responsibility, authority, and organization; how to start a job; scheduling and reports; sub-contractors, architects, engineers, inspectors, and owners; trade jurisdiction; and how to end a job. The laboratory time is devoted to the preparation of paperwork normally required of a superintendent on a construction project.

AET 442 Construction Business Management 5-0-5

Prerequisite: CET 433

A study of the management skills and knowledge necessary for the successful operation of a construction contracting firm. Subjects covered include company organization, estimating and bidding, the construction contract, purchasing, accounting, planning and scheduling, labor considerations, insurance, safety, personnel relations, and public relations.

AET 443 Environmental Control within Buildings 3-0-3

Prerequisite: AET 343

A study of systems affecting the comfort and environment within buildings. Systems covered are cleaning, disposal, signal, fire protection, elevator, lighting, acoustics, sound control, safety, and thermal comfort. Emphasis is placed on available equipment, advantages and limitations.

AET 444 Solar Heating and Cooling of Residences 3-6-5

Prerequisite: AET 343 or consent of instructor

A study of the practical application of the principles and current state-of-the-art methods of design for heating and cooling residential buildings with solar energy. Both "rough-estimate" and detailed system design (manual and computer-aided) methods are taught. Relative merits of different types of collectors and storage systems are discussed. Local operating systems are visited.

AET 491-495 Special Topics variable credit – 1 to 5 hours

Prerequisites: Senior standing and approval of the department head

The course will be offered on students' request to do creative or architectural research work.

BIOLOGY

Biol 201 Principles of Biology 2-3-3

A basic survey of biology. The evolution, reproduction, and development of organisms.

Biol 211 Modern Life Sciences 3-0-3

Prerequisite: Consent of instructor

A survey of areas of current interest in biology, with emphasis upon the physical, mathematical, and engineering principles and techniques involved. Topics will include molecular genetics and electro-physiology. The ethical and social implications of topics such as "genetics engineering" will be considered.

CHEMISTRY

Chem 201 General Chemistry 4-2-5

Prerequisite: Math 111

A survey of general chemistry. The subject matter includes electronic structure, periodic classification of elements, chemical bonding, stoichiometry, solutions, inorganic nomenclature, acids and bases, an introduction to organic chemistry, and organic nomenclature.

Laboratory exercises supplement the work in the classroom.

Chem 300 Chemistry of Air and Water Pollution**3-0-3**

Prerequisite: Chem 201

A study of the causes of, and possible remedies for, the pollution of our environment.

Chem 321 Organic Chemistry**4-3-5**

Prerequisite: Chem 201

An introduction to organic chemistry. Subject matter includes the study of hydrocarbons, petroleum, petrochemicals, alcohols, phenols, carboxylic acids and their derivatives, fats, oils, waxes, soaps, detergents, carbohydrates, amino acids, peptides, proteins, and dyes.

CIVIL ENGINEERING TECHNOLOGY**CET 121 Elementary Surveying****2-6-4**

Prerequisites: Draw 111, Math 112 or concurrently

Care and use of engineer's level, transit and tape, leveling, traversing, stadia, contours, building layouts, interpretation and plotting of field notes of topographic surveys, closure and area computations.

CET 311 Structural Drafting-Concrete**0-6-2**

Prerequisites: Draw 111, CET 314 or concurrently

A study of the various types of concrete framing systems and the preparation of working drawings for the concrete members of a structure.

CET 312 Structural Drafting-Steel**0-6-2**

Prerequisites: CET 314, Draw 111

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 necessary for fabrication of several steel members in the structure.

CET 313 Engineering Mechanics**3-0-3**

Prerequisite: Phys 201

Introduction to mechanics of materials with the emphasis on mechanics. Subject matter includes principles and applications of free-body diagrams for force systems, friction, shear and moment diagrams, deflection of beams by numerical integration, and determination of section properties.

CET 314 Strength of Materials**3-3-4**

Prerequisite: CET 313

A discussion of strength of materials concepts. Subject matter includes stress and strain analysis, with emphasis on elastic analysis of axially loaded members, connectors, beams, and columns. Eccentrically loaded members and an introduction to prestressed concrete design are also included.

CET 315 Soils and Materials Testing**3-6-5**

Prerequisite: CET 314

A study of aggregates, cement, concrete, soils, and asphalts. Testing aggregates, mix-designs, adjustments, slump, calculations of concrete characteristics, actual mixing, curing, and testing. Theory of soil mechanics as applied to permeability, consolidation, shear strength, unconfined and triaxial compression. Inplace density, Atterberg limits, compaction tests, specific gravity, grain size, classification of soils. Asphalt properties, mix design, and testing.

CET 316 Indeterminate Structural Analysis 3-0-3

Prerequisite: CET 313

An introduction to methods of analysis of indeterminate structures. Subject matter includes method of consistent deformations, unit-load, and influence line diagrams for continuous beams. The method of moment distribution is emphasized along with its application to frames having side-sway. Analysis of determinate and indeterminate trusses.

CET 317 Dynamics 5-0-5

Prerequisites: CET 313, Math 253

A study of kinematics and kinetics of particles and rigid bodies. Subject matter includes the principles and relationships of displacement, velocity, and acceleration; relative and absolute motion; force, mass, and acceleration; work and energy; and impulse and momentum. Emphasis is placed upon the solution of problems in dynamics and engineering through the use of these principles.

CET 321 Route Surveys 3-6-5

Prerequisite: CET 121

Simple circular curves, compound and reverse curves. Highway and AREA Spiral curves, spiraled compound curves, metric curves, vertical curves, profile levels, drainage surveys, cross sections, slope stakes, earthwork. The laboratory time is used for field layout of curves, earthwork problems, and a project consisting of a field survey connecting two areas of the campus, along with a complete set of highway plans for this survey.

CET 323 Land Surveys 2-6-4

Prerequisite: CET 321

Theory and practice of land surveying, subdivision; filing and recording deeds; U.S. system of land subdivision; plane coordinate systems; common and state laws; city surveying procedure; use of instruments and computations of astronomical observations for azimuth determination; Georgia Land Lot System of land subdivision.

CET 324 Topographic and Contour Surveying 2-6-4

Prerequisite: CET 121

Theory, description, and use of more advanced surveying instruments and methods; field work for the design and construction of engineering projects; use of the Plane Table on topographic surveys; altimetry; optical-type instruments; triangulation; base-line measurements using calibrated tape, hydrographic surveying, instrument cleaning and adjustment.

CET 325 Construction Surveys 1-6-3

Prerequisite: CET 121

Problems in the field layouts for various structures, such as bridges, dams, tunnels, buildings, canals, docks, utilities, etc.

CET 326 Land Survey Systems 3-0-3

Prerequisite: CET 323

A study of the various systems of surveying in common use. Metes and Bounds Surveys, their implementation and limitations. Details of the U.S. System of Land Surveys with emphasis on the rules and methods of relocating boundaries using this system.

CET 327 Surveying Laws 3-0-3

Prerequisite: CET 323

A study of the legal aspects of surveying. Statute and Common Laws related to Boundary Surveys and Locations. A review of general court decisions with specific applications to Georgia and the Southeastern States. The Surveyors' legal rights and responsibilities.

CET 332 Heavy Construction

2-3-3

Prerequisite: Sophomore standing

Heavy construction operations; fundamentals, equipment, earth excavation and movement, drilling and blasting, production of stone aggregate, concrete mixing and placing, pile driving, coffer-dams, foundations.

CET 333 Construction Management and Administration

3-0-3

Prerequisites: AET 344, CET 332 or AET 342

A study of management tools used to plan, schedule, and manage a complex construction project. Areas of discussion to include: contracts; owner, architect-engineer, construction manager relationship; insurance; safety; cost control; equipment usage; incentive plans; labor relations; material purchase and delivery and quality control.

CET 345 Municipal Sanitation and Hydraulics

4-3-5

Prerequisite: CET 314

A study of hydraulic principles required in the design, construction, and operation of municipal water supply and sewerage systems; and a study of the sources, collection, treatment and distribution or disposal of municipal water and sewage. The subject matter includes principles of liquid flow and measurement in pipes and open channels, pumping, water use and sewerage volume, piping for water and sewerage systems, collection and transfer of water and sewage and tests and treatment of water and sewage.

CET 391-395 Special Topics

variable credit – 1 to 5 hours

Prerequisites: Junior standing and departmental approval

Special topics offered by the department on a demand basis.

CET 402 Ethics of Engineering

1-0-1

A review of the theoretical and practical aspects of ethical problems in engineering, along with their suggested solutions. Specific examples, situations and limitations of ethics, and ethical relationships are discussed in detail.

CET 403 Cartography

1-6-3

Prerequisite: CET 324

A study of maps and charts. Map Projection systems, Cartographic Compilation, map revisions, color separation, inking and scribing techniques, photolitho processes, computer mapping.

CET 404 Survey Adjustments

3-0-3

Prerequisite: CET 425

A study of the errors made in surveying and their adjustment. Error propagation and location. Statistical evaluation of survey computational errors, their adjustments to give the most nearly correct results. Calculations to change from Plane Surveys to Geodetic Surveys.

CET 415 Building Foundations

4-3-5

Prerequisites: CET 315, AET 317, AET 318

The selection and design of the proper foundation using soil and geologic data. Conventional footings, spread foundations, floating foundations, pile and caisson foundations will be covered along with retaining walls.

CET 417 Structural Design

3-3-4

Prerequisites: AET 317, AET 318, CET 316

A complete study of bridges that consists of structural analysis, design, construction, and maintenance. American Association of State Highway Transportation Officials (AASHTO) design standards are used to design a bridge for a term project.

- CET 418 Geology of Engineering** 2-3-3
 A discussion of the elementary concepts of geology, petrology, sedimentation, and the behavior and strength of natural materials in SITU.
- CET 421 Photogrammetry** 0-6-2
 Prerequisite: CET 323
 The preparation of maps and charts from aerial photographs. Specifications and planning for aerial surveys.
- CET 422 Advanced Photogrammetry and Remote Sensing** 0-6-2
 Prerequisite: CET 421
 Analytical photogrammetry and bridging. Interpretation of imagery from panchromatic, color, infrared, and thermal recording equipment for surveying, land use, forestry, geology and agriculture, ERTS photography.
- CET 423 Geodesy** 2-3-3
 Prerequisite: CET 425
 Size and shape of the earth, astronomic observations for geographic positions, gravimetric variations, geodetic positioning by satellites.
- CET 425 Advanced Surveying** 2-6-4
 Prerequisite: CET 324
 Theory and use of electronic distance-measuring equipment, trilateration, geodesy, plane and spherical coordinates, map projections, precise leveling, subtense bar, error analysis, optical tooling, large area survey planning.
- CET 432 Highway Design and Construction** 2-3-3
 Prerequisites: CET 315, CET 321
 A study of the factors required in planning and constructing a highway. Topics covered are planning, location and plans, rights of way, traffic volumes and capacity, signals, lane markings, signs, sight distances, safety, drainage, subgrades, soils, bases, construction of road-bed, flexible pavements, rigid pavements, maintenance.
- CET 433 Construction Estimating and Scheduling** 3-3-4
 Prerequisites: AET 344, AET 342 or CET 332
 A study of project cost and scheduling through the use of proven construction estimating techniques and established CPM and PERT methods. Limitations as found from constructed projects will be presented to the students in order to show them the reliability of an estimate or schedule.
- CET 441 Environmental Sanitation** 4-3-5
 Prerequisite: CET 345
 A study of the various solid, liquid, air, and noise pollutants, primarily those emitted by industry, and the various treatment processes available for abatement. Various industries are studied with field trips to specific sites representative of those industries.
- CET 442 Water Treatment Systems** 3-6-5
 Prerequisite: CET 345
 A study of the requirements necessary to design a water-distribution system and a water-treatment plant. The requirements are based on data published by regulating authorities such as State Water Quality Control Boards, American Society of Civil Engineers, etc.
- CET 443 Waste Treatment Systems** 3-6-5
 Prerequisite: CET 345
 A study of the requirements necessary to design a sewage-treatment plant and sewage-collection system. The requirements are based on data published by regulating authorities such as State Water Quality Control Boards, American Society of Civil Engineers, etc.

CET 444 Urban Drainage and Erosion Control I

3-6-5

Prerequisite: CET 345

A study of drainage areas and the quantity of storm-water runoff produced by rainfall on these areas. Small and large drainage areas will be analyzed by the currently used hydrologic methods. Design of detention ponds and a study of local drainage ordinances will be included. Class problems, design of detention ponds, and design of drainage structures will be required projects for each student.

CET 445 Urban Drainage and Erosion Control II

3-6-5

Prerequisite: CET 444

Analysis and design of open channels, close-conduit systems, storm-sewer appurtenances and culverts. Hydraulic analysis of flood-plain areas considering several local applications. Class problems, flood-plain analysis and design of drainage system will be required projects for each student.

CET 446 Urban Drainage and Erosion Control III

3-6-5

Prerequisite: CET 445

Analysis of erosion problems resulting from urban drainage. Design of erosion-resistant channels and silt basins. Introduction to the methods presently being used to control erosion and sediment in urban areas. Class problems, silt-basin design, and a term paper will be required projects for each student.

CET 461 Transportation Systems and Planning

4-3-5

Prerequisite: CET 321

The history, development, operational characteristics, and organization of the transportation system; traffic control; the urban transportation problem; planning-organization, data collection and analysis; program-implementation, updating, economic analysis; trip generation models; planning models, route surveys and sections, intersections, earthwork, and drainage for highways and railways; land terminals, pipelines and belt conveyors; airport planning and layout, terminal areas, and design standards and procedures; planning and design of harbors and port facilities; future developments.

CET 491-495 Special Topics

variable credit – 1 to 5 hours

Prerequisites: Junior standing and departmental approval

Special topics offered by the department on a demand basis.

DRAWING**Draw 111 Engineering Drawing I**

0-6-2

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

Draw 311 Descriptive Geometry

1-5-3

Prerequisite: Draw 111

The graphic development of the spatial relationships of points, lines, and planes, and the intersections of surfaces. Emphasis is placed on a thorough understanding of projection principles so the visualization of exact space conditions is developed.

Draw 321 Technical Illustration

1-5-3

Prerequisite: MET 210

The rendering of pictorial drawings for reproduction. Various media and techniques are introduced, and the emphasis is placed on pen-and-ink problems of technical subjects.

Draw 331/MET 331 Electronic Drawing

2-2-3

Prerequisites: Draw 111, EET 111

An introduction to the techniques used for preparing electronic drawings. Study and work exercises include schematic diagrams, drawings of electronic components, connection diagrams and printed circuits, and other related exercises.

ECONOMICS

Econ 220 Economics

5-0-5

Prerequisite: Math 111

An analysis of the economics of production in American society. Particular emphasis is given to the study of pricing in monopolistic, oligopolistic, and competitive industries, and to the study of the impact of government upon the functioning of these industries. Topics include marginal productivity analysis, graphic models, national income analysis, and the importance of the labor market in American industry. Text: At the level of Hailstones and Brennan, *Economics*.

ELECTRICAL ENGINEERING TECHNOLOGY

EET 111 Circuit Analysis

5-3-6

Prerequisites: Engl 111, Phys 201, Math 253 or concurrently

An introductory dc-circuits course dealing with units, basic electrical laws and parameters, series and parallel circuits, network analysis, and dc instruments.

EET 230 Electromechanical Devices

2-3-3

Prerequisite: Phys 201

An introduction to the mechanical and electromechanical devices which are essential to the functions of feeding, sensing, stacking, timing, punching, printing, accumulating, and storing. The study of these electromechanical devices is approached from a qualitative standpoint with frequent exposure to the physical device itself. The laboratory period will enable the student to see firsthand on operational equipment how each of the electromechanical devices studied performs its intended function.

EET 237 Electromechanical Layout and Fabrication

2-3-3

Prerequisites: Draw 111, EET 300 or concurrently

A study of the layout, packaging, and manufacture of electronic assemblies and systems. Electrical design of assemblies and systems utilizing printed-circuit techniques, microcircuits, and integrated circuits will be emphasized. Design procedures will be studied with consideration given to structural design, environmental factors, human factors, finishes, markings, and production methods. Layout and fabrication practices in current use by electronic-equipment manufacturers will be examined.

EET 272 Introduction to Semiconductor and Electronic Devices

5-3-6

Prerequisites: EET 111, Math 253, EET 274 or concurrently

An introduction to the physics and conduction properties of insulators, conductors, and semiconductors. Semiconductors, vacuum, and gas devices are introduced with emphasis on the graphical and equivalent-circuit representation. Single-stage circuits are treated using graphical and analytical techniques.

EET 274 Circuit Analysis

5-3-6

Prerequisites: EET 111, Math 253

Fundamentals of circuit theory and practice as applied to single-phase ac circuits. Response of *RLC* networks, impedance and admittance functions, complex notation, rms and average values, and equivalent circuits are included. Laboratory work parallels class work and includes use of bridges, oscillators, and oscilloscopes.

EET 300 Semiconductor Circuits and Devices

5-3-6

Prerequisites: EET 272, EET 274, EET 302 or concurrently

An introduction to semiconductor circuits and devices. A study of the static and dynamic characteristics of semiconductor diodes, transistors, unijunctions, silicon controlled rectifiers, and other semiconductor devices. Transistor amplifiers are

considered from both the graphical and the equivalent-circuit approach using the common-emitter, common-base, and common-collector configurations. Biasing and stabilization considerations are explored both in class and laboratory. Transistor circuits are analyzed using the methods of four-terminal network analysis with emphasis being placed on the h and t parameters.

EET 301 Computer Fundamentals

3-3-4

Prerequisite: Sophomore standing

A study of digital-computer systems, number systems, the application of logic circuits to computer design, and an introduction to Boolean algebra. The logical design of digital computers is stressed. Emphasis is placed on the arithmetic and memory elements. Input/output devices and the control element are also studied.

EET 302 Circuit Analysis

3-3-4

Prerequisite: EET 274

Continued study of circuit theory and practice, including network theorems, elementary transients, resonant circuits, and coupled circuits.

EET 307 Electric Transmission

5-3-6

Prerequisites: EET 302, Math 201 or Math 254

A detailed study of transmission lines in the conveying of electric energy and information. Both lossy and lossless conditions are analyzed. The parameters of transmission lines, traveling waves, lines with no reflections, lines with reflections, transmission-line charts, measurements, filters, and impedance matching are studied.

EET 308 Antennas and Microwaves

5-3-6

Prerequisite: EET 307

Study of electromagnetic-wave propagation – guided and unguided waves. The waveguide as a circuit element, microwave devices and measurement techniques, and general systems of antennas are studied.

EET 310 Alternate Energy Sources

4-0-4

Prerequisite: Junior standing

A study of the theory and practice of energy conversion with special emphasis placed on methods of conversion that hold promise for the future. Economic and environmental problems are considered. The course includes a study of methods by which useful energy may be derived from nuclear, geothermal, tidal, solar, and wind power. Conventional sources are also considered.

EET 313 Polyphase Network Analysis

3-3-4

Prerequisites: EET 302, Math 201 or Math 254

An in-depth study of polyphase systems, balanced and unbalanced: generation, basic connections, parallel loads, voltage regulation, power-factor correction, line drop, transformer connections, wattmeter and varmeter methods, phase-sequence indicators, half-wave and full-wave rectifiers. Includes 2- ϕ , 3- ϕ , 4- ϕ , and 6- ϕ systems. The laboratory sessions include computation, field trips, demonstrations, and measurements in the power laboratory.

EET 318 Special Topics

variable credit – 1 to 4 hours

Prerequisite: Junior standing

Special topics selected by the department. Offered on a demand basis.

EET 319 Special Topics

variable credit – 1 to 4 hours

Prerequisite: Junior standing

Special topics selected by the department. Offered on a demand basis.

EET 321 Machine and Symbolic Programming 5-3-6

Prerequisite: EET 301

A study of the foundation of stored-program concepts. Machine language and symbolic programming language are studied at the introductory level. The course features an abbreviated data-processing system which is used to code a wide range of programming problems, allowing for the study of programming concepts.

EET 323 Computer-Programming Applications 3-3-4

Prerequisites: Math 215, EET 340

Computer-programming applications for Electrical Engineering Technology. The course includes a survey of various problems which can be effectively solved with the aid of the digital computer. Subroutines, package programs, and library programs of interest to the Electrical Engineering Technology students are studied.

EET 327 Control of Environmental Systems 4-0-4

Prerequisites: EET 321, EET 340

A study of the hard-wired and programmable logic for environmental systems control. Necessary heating, ventilation, and air-conditioning fundamentals are introduced. Hard-wired and computer-assisted control systems are emphasized in proportion to importance. Total building automation, including energy conservation, security, and life safety is included.

EET 339 Electronic Applications 3-3-4

Prerequisites: EET 300, EET 302

A study of linear integrated circuits. Emphasis is placed on circuit function and application. Applicable state-of-the-art devices are introduced.

EET 340 Pulse and Digital Circuits and Applications 5-3-6

Prerequisites: EET 300, EET 301, EET 302

A study of linear and nonlinear circuits used in the generation and shaping of waveforms, including the design and analysis of multivibrators, clippers, clampers, logic circuits, and other circuits which are important in applications employing digital techniques. The application of these circuits as they relate to digital techniques such as computing telemetry and measurement systems is stressed. The primary emphasis is placed on semiconductor circuits including integrated-circuit techniques.

EET 350 Electronic Circuits and Applications 5-3-6

Prerequisites: EET 300, EET 302

A study of the amplifier and oscillator circuits and the principles of feedback, modulation, and demodulation. Amplifiers studied include both voltage and power amplifiers with consideration given to gain, bandwidth, risetime, and their relationships in cascaded amplifiers. Only sinusoidal oscillators are studied, but both feedback and negative-resistance oscillators are considered. Modulation and demodulation including AM, FM, and pulse-modulation techniques, and applications of the circuits in modern communications systems are studied with emphasis on the use of solid-state devices.

EET 391-395 Special Topics variable credit – 1 to 5 hours

Prerequisite: Junior standing

Special topics selected by the department. Offered on a demand basis.

EET 406 Survey of Electric Machinery 3-3-4

Prerequisite: EET 302

An introductory course in the characteristics and applications of basic electric machinery. Ac generators, dc generators, ac motors, and dc motors are studied.

EET 413 Power System Analysis 3-3-4

Prerequisites: EET 307, Math 215

An advanced study of the power system and its various components. The parameters of the power transmission line are studied in detail, equivalent circuits for the line are established, load-flow studies are made, the problems of economy in the operation of the system are analyzed, and fault studies are treated in detail. Use of the digital computer in the solution of problems is taught.

EET 416 Automatic Control Systems I 3-3-4

Prerequisite: EET 302

An introduction to the methods of analysis of electric circuits and control systems through the use of operational mathematics.

EET 417 Automatic Control Systems II 3-3-4

Prerequisite: EET 416

The analysis of automatic control systems using Laplace transforms. Emphasis is placed on Bode plots, the root-locus method, Nyquist diagrams, and system criteria.

EET 418 Special Topics variable credit – 1 to 4 hours

Prerequisite: Senior standing

Special topics selected by the department. Offered on a demand basis.

EET 419 Special Topics variable credit – 1 to 4 hours

Prerequisite: Senior standing

Special topics selected by the department. Offered on a demand basis.

EET 422 Digital Computer Systems 3-3-4

Prerequisites: EET 301, EET 340

A brief review of logic minimization and digital logic circuits. An introduction to the use of digital integrated circuits. Circuits are categorized by technology and design guidelines are developed. Using TTL logic devices and a variety of complex functions compatible with TTL logic, complex digital systems are designed, constructed, and analyzed in the laboratory.

EET 482 Electrical Controls 5-0-5

Prerequisite: Math 112 or concurrently

Electrical fundamentals, circuits, wiring methods, motors, and control circuits of electrical equipment. *Credit for nonelectrical students only.*

EET 491-495 Special Topics variable credit – 1 to 5 hours

Prerequisite: Senior standing

Special topics selected by the department. Offered on a demand basis.

ENGLISH**Engl 105 Special Topics in Written Communication** 3-0-3

Special assignments in written communications, stressing composition, sentence structure, grammatical correctness, punctuation, diction, reading, and analysis of written material. *Required for students with deficiencies shown on the Regents' Test. This course may not be used as a substitute for taking the Regents' Test.*

Engl 111 Composition and Rhetoric 3-0-3

Planning the composition; writing effective paragraphs and sentences; some attention to grammar and punctuation.

- Engl 112 Composition and Rhetoric** 3-0-3
Prerequisite: Engl 111
Vocabulary building, dictionary study, practice in developing sentence style, precise writing, paragraph techniques, and business correspondence.
- Engl 200 Language and Logic** 3-0-3
A study of formal logic, covering the history of logic, deductive and inductive reasoning, syllogisms, modern scientific thinking and semantics. The course emphasizes relationships between language and logic.
- Engl 211 Man and Literature I** 5-0-5
Prerequisite: Engl 111
A survey of literature of the Western World from the Hebrews and Greeks through the Renaissance. The course includes sections from the writings of classical Greece and Rome, the Middle Ages, and the Renaissance. The course includes drama, poetry, prose, fiction, and occasional works of philosophy. The sequence is approximately chronological; selections from the Bible are interspersed into the sequence. The emphasis of the course will be on literature as an art and as a reflection of the history of ideas.
- Engl 212 Man and Literature II** 5-0-5
Prerequisite: Engl 111
A survey of literature of the Western World from the 16th century to the present. Covering drama, poetry, prose, fiction, and occasional works of philosophy, the course emphasizes literature as an art and as a reflection of the history of ideas.
- Engl 221 Public Speaking** 3-0-3
Prerequisite: Engl 111
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.
- Engl 231 Technical Writing** 3-0-3
Prerequisite: Engl 112
Study of basic organization, style, and mechanics of technical and administrative reports. The course includes practice in writing such typical assignments as descriptions, recommendations, and instructions. Instruction includes planning, organizing, and writing of reports; design of visual aids; elements of editing; and preparation of final drafts.
- Engl 304-305-306 Communication Technology I, II, III** 1-3-2
Prerequisite: Engl 112
Practical experience in writing, publishing, and distributing of both technical and nontechnical materials for the mass media, including (but not necessarily limited to) periodicals, house organs, magazines, newspapers, radio, and television, aimed at specific markets. *Especially recommended for members of the newspaper and year book staffs.*
- Engl 340 Science Fiction** 5-0-5
Study of selected works of science fiction both by mainstream writers and by those specializing in the genre. Emphasizing science fiction as a bridge between technology and human values, the course deals with such themes as non-human intelligence, man in space, the future of society, and the promises and dangers of technology.
- Engl 391-395 Special Topics** variable credit – 1 to 5 hours
Prerequisite: Consent of instructor
Special topics in communications and literature. Offered by the department on a demand basis.

Engl 400 Communication in Organization 3-0-3

Prerequisite: Consent of instructor

A study of effective communication in organizations. Includes study of communication as a vital tool of management. Offers lectures; case problems from business, industry and government; group problem-solving; outside guest lecturers, and presentations of solutions to communication problems.

Engl 425 Man and Technology 5-0-5

Prerequisite: Consent of instructor

A colloquium. A study of the ways in which technology interacts with other areas of culture.

Engl 431 Advanced Technical Writing and Editing 5-0-5

Prerequisites: Engl 231, junior standing

Study and practice in planning, writing, and editing reports written in business, industry, and government. Such reports will typically include trip reports, inspection reports, methods studies, proposals, failure reports, quality assurance studies.

FIRE SCIENCE TECHNOLOGY**FST 101 Introduction to Fire Protection** 3-0-3

History and philosophy of fire protection; review of statistics of loss of life and property by fire; introduction to agencies involved in fire protection and prevention; discussion of current legislative developments and career orientation.

FST 102 Extinguishers and Alarms 3-3-4

This course is designed to develop the student's ability to preform a hazard analysis in order to determine the proper use of portable extinguishers and alarms. Subject matter will include a survey of placement, code maintenance and selection of both alarm systems and portable extinguisher layouts.

FST 104 Fire Safety Codes and Material Rating 3-0-3

Fundamentals of codes as they relate to building construction, fire prevention and life safety hazards. A study of occupancy classes, fire loads, and related subject matter.

FST 106 Industrial Fire Protection 3-3-4

Emphasis placed on specific concerns and safeguards related to business and industrial organizations: study of industrial fire brigades, fire-prevention programs; cooperation between public and private fire-protection organizations.

FST 111 Fire Department Organization and Administration 3-0-3

A topical survey of operational planning and decision making in fire department and emergency-services management. This survey will involve such matters as cost and effectiveness measurements, organization and personnel administration, management information, control systems, master planning and the scientific management of prevention, protection and personnel policies.

FST 144 Building Construction and Blueprint Reading 3-2-4

Acquaints the student with the components of buildings and methods of construction both past and present. This knowledge is necessary for understanding codes and inspection principles. Part of the course will be devoted to blueprint reading which is essential to the fire-safety analysis of proposed construction.

FST 201 Firefighting Tactics and Strategy 2-3-3

Prerequisites: FST 101, FST 111 or consent of instructor

Efficient and effective utilization of manpower, equipment, and apparatus; basic techniques of suppression, extinguishment, salvage, overhaul and rescue. Emphasis placed on preplanning fire ground problem solving related to fire ground decision making and attack tactics and strategy.

FST 202 Transportation Hazards 2-0-2

Prerequisite: FST 101 or consent of instructor

The course is designed to develop the student's ability to identify, analyze, and implement fire protection and safety systems in the transportation industry. Subjects will include motor carrier safety and regulation, rapid-transit systems, air and marine transport practices, and railway shipping procedures.

FST 203 Inspection Principles 3-3-4

Prerequisite: FST 104 or consent of instructor

Exploration of basic principles involved in fire prevention and inspection; emphasis is placed on building design and construction; fundamentals of inspection techniques, recognition of fire hazards, and development of a systematic inspection program.

FST 211 Hydraulics and Water Distribution 3-3-4

Prerequisite: Math 111

Application of the laws of mathematics and physics to properties of fluid states, force, pressure, and flow velocities; study of water sources, distribution systems, and the design of such systems.

FST 213 Chemistry of Hazardous Materials 4-3-5

Prerequisite: Chem 201

A study of chemical characteristics and reactions related to storage, transportation, and handling of such hazardous materials as flammable liquids, combustible solids, oxidizing and corrosive materials, and radioactive compounds. Emphasis is placed on control of emergency situations.

FST 214 Fire Investigation and Law 3-0-3

Introduction, meaning, sources, and reasons for law. Constitutional, statutory, and unwritten law, civil and criminal actions, prosecutions and punishments, the judicial system, municipal liability, and firefighter's liability.

FST 233 Supervision and Human Relations 3-0-3

Emphasis is placed on basic concepts of efficient supervision and effective programs on human relations. Concepts of dealing with day-to-day relations with others in their intellectual, emotional, and ethical problems are discussed.

FST 234 Fire Extinguishing Systems 3-3-4

Prerequisite: FST 211 or consent of instructor

A thorough analysis of sprinkler and standpipe systems and other related components. Related systems will be covered as to advantages, codes governing installation, water-supply requirements, testing, maintenance, and the most common problems.

FST 243 Fire Department Safety 3-0-3

An examination of the Occupational Safety and Health Act as it applies to the fire services. The course will acquaint the student with the fundamentals of evaluation, recognition, and control of accidents relating to the emergency services.

FST 291-295 Special Topics **variable credit – 1 to 5 hours**

Prerequisites: Sophomore standing and approval of the department head

Special problems selected by the department. Offered on a demand basis.

GEOLOGY

Geol 201 Physical Geology **3-0-3**

Fundamentals of physical geology. The nature, origin, and processes of change of minerals and rocks. Applications of geology in mineral exploration, construction, and the use of water.

Geol 202 Physical Geology **0-3-1**

Prerequisite: Geol 201 or concurrently

Field study of the origin, variety, and location of rocks and minerals; weathering and geologic agents active in Georgia; geologic structures resulting from rock formation and deformation. Attention will be given to recognition and solution of structural problems.

HISTORY

Hist 114 Western Civilization I **5-0-5**

This course is an introduction to the concepts of culture and historical thinking. An eclectic survey of ideas and institutions from ancient times to the 17th century.

Hist 115 Western Civilization II **5-0-5**

A continuation of History 114 from the Thirty Years War to the present. An eclectic survey of significant ideas and institutions. (e.g. the Age of Revolutions.)

Hist 251 United States to 1876 **5-0-5**

United States history from the Colonial period through Reconstruction. Emphasis on interpretation of American institutions and ideas. *Satisfies U.S. and Georgia history and government requirement.*

Hist 252 United States since 1876 **5-0-5**

The rise of the United States as an industrial power from the late 19th century to the present. Special emphasis on the American reform movement. *Satisfies U.S. and Georgia history and government requirement.*

Hist 325 History of American Technology **5-0-5**

An introduction to the development of technology and its impact on American society. Topics include the transfer of technology from Europe; Eli Whitney and cotton; Samuel Colt and firearms; interchangeable manufacture; machine tools; the factory system; McCormick and agriculture; ship-building; the "Second Industrial Revolution"; the rise of the corporation; architecture; the Wright brothers; Ford and the automobile; photography and cinema; television and transistors; "space age" technology.

Hist 391-395 Special Topics **variable credit – 1 to 5 hours**

Prerequisite: Consent of instructor

Special topics in American and European history. Offered by the department on a demand basis.

Hist 422/AET 422 History of American Architecture **5-0-5**

Prerequisite: AET 323 or consent of instructor

A survey of American architecture from the Colonial period to the present. Emphasis on the 19th and 20th centuries. Jointly offered by the History and AET faculty. *This course may not be used as a technical elective.*

INDUSTRIAL ENGINEERING TECHNOLOGY**IET 119 Introduction to Industrial Engineering Technology 5-0-5**

A study of the relationships of the industrial-engineering technologist with the profit-making enterprise. Emphasis is placed on organizational principles, the functions of the major departments of an enterprise, and practices in manufacturing processes and production methods. Because of its introductory nature, this course should be taken during the IET student's first quarter at Southern Tech. Text: At the level of Vaughn, *Introduction to Industrial Engineering*.

IET 130 Data Processing 3-2-4

An introduction to the uses and limitations of data-processing equipment with particular emphasis on microprocessors and the digital computer. The BASIC and COBOL programming languages are studied using both interactive and batch terminals to a large-scale digital computer. Text: At the level of Dock and Essick, *Principles of Business Data Processing*.

IET 227 Industrial Statistics I 5-0-5

Prerequisite: Math 253

A study of probability, inferential and descriptive statistics and hypothesis testing. Topics include the probability of dependent, independent, exclusive and nonexclusive events, the binomial and Poisson probability distributions, permutations and combinations, measures of dispersion, measures of central tendency, the central-limit theorem, and hypothesis testing using the normal and student's "t" distribution. Emphasis is placed on industrial application and problem solving. Text: At the level of Daniel and Terrell, *Business Statistics*.

IMT 310 Accounting and Cost Accounting 5-0-5

A basic study of general accounting principles, particularly in their relationship to the systematic recording, organizing, and analysis of accounting data for effective management decision making.

Emphasis is placed upon systems of cost control in job order, process, standard and direct costing systems, and recording and control of material, direct labor, and overhead cost. Text: At the level of Salmonson, Hermanson, and Edwards, *A Survey of Basic Accounting*.

IET 312 Human Factors in Engineering Technology 5-0-5

Prerequisite: Psyc 112

The systematic application of relevant information about human characteristics and behavior to the design of both the things people use and the methods of their use, and to the design of the environments in which people work and live. This includes topics such as human information processing, physical output activities, workspace and arrangement, and working environment.

IMT 316 Principles of Management 3-0-3

The philosophy and functions of the management process are studied in terms of present-day organizational systems. Topics including planning, decision making, organizational structure and motivational theory are presented through lectures, guest speakers, case studies, and simulations. The course is recommended for students interested in management aspects of an engineering technology career. Text: At the level of Sisk, *Management and Organization*.

IET 322 Motion and Time Study 4-2-5

Prerequisite: Engl 231

An introduction to the field of motion and time study. The use of charts, the principles of motion economy, time-study methods and practice, standard data, and

work sampling are covered. Hands-on experience in stopwatch and micromotion study are provided in the laboratory. Text: At the level of Niebel, *Motion and Time Study*.

IET 326 Wage and Salary Administration 3-0-3

This course examines compensation theories and their application to modern organizations. Also considered are problems associated with the establishment of wage and salary levels and structures, determination of individual wages, evaluation of methods of payment and indirect compensation, and compensation of managers and professionals. Text: At the level of Zollitech and Langsner, *Wage and Salary Administration*.

IET 327 Industrial Statistics II 3-0-3

Prerequisites: IET 227, IET 130 or Math 215

An extension of the first course in statistics. Topics covered include analysis of variance and regression and correlation analysis. Also included is a section on computer applications, stressing use of library programs. Text: At the level of Daniel and Terrell, *Business Statistics*.

IMT 329 Personnel and Labor Relations 5-0-5

The application of sound principles of psychology and established management practices in personnel and labor relations, with special emphasis on individual and group behavior. The techniques of conference leadership and employee training are developed in the analysis and demonstration of actual case problems from industry. Special attention is given to the organized labor movement, collective bargaining and government regulations, and the administration of management-union agreements. Grievances related to wages, hours, and working conditions are analyzed with consideration for prevention measures in personnel and labor relations. Text: At the level of Strauss and Sayles, *Personnel: The Human Problems of Management*.

IET 330 Materials Handling 2-2-3

Prerequisite: IET 322 or consent of instructor

An introduction to the principles and practices of material handling. The basic concepts of material handling, the economic factors essential to the evaluation of design alternatives, the fundamentals of equipment selection, and the effects of automation on the field of material handling are studied.

IET 333 Cost Estimating 2-2-3

Prerequisites: IET 424 and IMT 310 or consent of instructor

A study of the methods of preparing cost estimates to be used in the management of an industrial enterprise. Methods of operation estimating, product estimating, and project estimating are introduced.

IET 334 Production and Inventory Control 3-0-3

Prerequisites: Math 253, IET 322

The concepts of a basic production control system and the requirements of production control for both continuous and intermittent manufacturing are covered. Control of inventory is treated as an integral part of the production control system. Case studies are used. Various methods and techniques of production control are studied in detail. Text: At the level of Moore and Jablonski, *Production Control*.

IET 339 Statistical Quality Control 3-0-3

Prerequisite: IET 227

An introduction to the concepts of applied statistical quality control. Topics covered include acceptance sampling plans, military standard 105d, Shewhart control charts, basic reliability applications, and product liability. Text: At the level of Vaughn, *Quality Control*.

IET 340 Plant Layout and Materials Handling 2-4-4

Prerequisite: IET 322 or AMET 465

A study of the systematic method of plant layout for efficient materials handling and product flow. Emphasis is placed on charting techniques in the optimization of equipment location and facilities design. A major term project provides actual experience in the plant layout and materials-handling function. Guest lectures and plant visits augment the regular instruction. Text: At the level of Apple, *Plant-Layout and Materials-Handling*.

IMT 341 Finance 3-0-3

A study of the forces affecting the demand and the supply of funds in the capital market. Included are the nature and role of finance in our economy, short-term financing, trade credit, and long-term financing. The forms and reasons for financing and their limitations are discussed. Recent monetary and credit problems and policies are studied. Text: At the level of Weston, *Essentials of Managerial Finance*.

IMT 342 Small Business Management 3-0-3

A study of management of an independent business. The choice of business organizations, essential records and accounting controls, financing the independent business, taxation as a factor in management decisions, systems of planning, directing and controlling business operations, and formation of business policies pertaining to forecasting, financing, and marketing the products and services of the independent business. Text: At the level of Broom and Longenecker, *Small Business Management*.

IMT 343 Business Law I 3-0-3

The general laws of contracts, agency, sales agreements, and the various legal forms of business enterprise are studied. Cases involving legal issues relating to the above subjects are analyzed. Text: At the level of Wyatt and Wyatt, *Business Law*.

IET 344 Industrial Operations Research 5-0-5

Prerequisites: IET 227, IET 130 or Math 215

A study of the quantitative techniques used in the solution of management problems. Topics include graphical and simplex linear programming, assignment and transportation algorithms, decision making under uncertainty, Bayes formula, queueing theory and simulation. The high-speed digital computer is used where appropriate. Text: At the level of Anderson, Sweeney and Williams, *Introduction to Management Science*.

IMT 345 Marketing 3-0-3

An introduction to basic marketing concepts from both the macro- and microeconomic standpoint. Included are the special aspects of some major management problems, the factors that influence consumer choice, costs and margins, sales policies, and pricing problems. Problems of advertising policies and transportation are also covered. Text: At the level of McCarthy, *Basic Marketing: A Managerial Approach*.

IET 350 Industrial Safety 2-2-3

A basic study of industrial accident prevention considering the nature and extent of the accident problem. 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 the OSHA requirements. Included are laboratories designed to show how the OSHA requirements are complied with in industry. Text: At the level of Hammer, *Occupational Safety Management and Engineering*.

IET 351 Manufacturing Safety 2-2-3

Prerequisite: IET 350 or consent of instructor

This course introduces the student to safe practices in manufacturing operations and their relationship to federal regulations. This includes the safe operation of

machine tools, woodworking machinery, metal working, apparel and textile operations, and electrical hazards. The student will have a sound base of what constitutes safe practice and how the federal laws relate to these areas.

IET 354 Plant Safety**3-0-3**

Prerequisite: IET 350 or consent of instructor

This course introduces the student to safe practices in plant-design layout, materials handling, fire safety, and their relationship to federal regulations. This includes industrial and office layout, materials-handling equipment, noise control and fire control. The student will have a sound base of what constitutes safe practice and how the Occupational Safety and Health Laws relate to these areas.

IET 357 Industrial Hygiene**3-0-3**

Prerequisite: IET 350 or consent of instructor

This course introduces the student to the field of industrial hygiene. This includes recognition, evaluation, and prescription of environmental factors which influence health. Specific areas of interest include chemical, physical, biological, and ergonomic stresses a worker experiences while on the job.

IMT 365 Income Tax Accounting**5-0-5**

Prerequisite: IMT 310 or consent of instructor

The study of individual income-tax accounting. Some of the areas that will be covered are: Income from a proprietorship, farm income, rental income, retirement income, capital gains or losses from either stocks or other assets and income averaging. Emphasis is placed on the student's being able to prepare any individual tax return. Elective course to be offered on demand.

IMT 375 Business Law II**5-0-5**

Prerequisite: IMT 343 or consent of instructor

The study of the general law of property, sales, commercial, paper, partnerships, and corporations. Emphasis is placed upon case analysis. Elective course to be offered on a demand basis.

IET 391-395 Special Topics**variable credit – 1 to 5 hours**

Prerequisite: Junior standing or consent of instructor

Special problems selected by the department. Offered on a demand basis.

IET 401 Project Planning and Control**2-2-3**

Prerequisites: Math 253, IET 130 or Math 215, junior standing

The study of project scheduling and management, including Program Evaluation and Review Technique (PERT), Critical Path Method (CPM), and line-balancing techniques. The digital computer is used in the study of project planning and control. Text: At the level of Moder and Phillips, *Project Management with CPM and PERT*.

IMT 416 Modern Trends in Management**5-0-5**

Prerequisites: IET or IMT major, senior standing

The impact of modern technical developments and system analysis on management. Current thinking in environmental-technology management, industrial organization, project and process management.

IET 424 Principles of Engineering Economy**5-0-5**

Prerequisite: Math 111

An introduction to the effect of the time value of money and tax consequence upon the economic analysis of engineering problems. Problems such as the economic selection of equipment, the economic justification of building and land improvements, and the economic analysis of investment transactions are included. Text: At the level of Tarquin and Blank, *Engineering Economy*.

IET 430 Modern Industry 1-4-3

A study of the political, historical, and geographical factors which have a direct influence upon development and distribution of industries. Studies of specific industries, including guest lectures and possible on-site inspections are included.

IET 434 Industrial Distribution 5-0-5

A study of the operation of industrial distribution businesses. Discussion of problems facing industrial distributors, highlighted by visits from industrial distribution company officials. Included are case studies and application of state-of-the-art tools and methods used in industrial distribution.

IET 445 Distribution Systems 3-0-3

Prerequisite: IMT 345

A continuation of the study of marketing. Included is the management of the firm's marketing function within a dynamic operating environment. Topics covered include product development, promotion, channel selection, and logistics. Emphasis is given to philosophies, concepts, and judgment criteria of the industrial sales program.

IET 465/AMET 465 Synthetic Work Measurement 4-2-5

Prerequisite: IET 322 or consent of instructor

An in-depth study of Methods Time Measurement (MTM) synthetic time study. The use of MTM for methods improvement as well as time study is covered. The student will be given the opportunity to take the MTM Blue Card Exam. Text: At the level of Karger and Bayha, *Engineered Work Measurement*.

IET 491-495 Special Topics variable credit – 1 to 5 hours

Prerequisite: Junior standing or consent of instructor

Special problems selected by the department. Offered on a demand basis.

MATHEMATICS**Math 110 Integrated Algebra and Trigonometry** 5-0-5

Prerequisite: Two units of high-school algebra

This course recommended only for those students whose scores on the CEEB Scholastic Aptitude Test math section indicate ability to succeed in accelerated mathematics. This course satisfies the requirements of Math 111 and Math 112.

The concept of function; exponential, logarithmic, and trigonometric functions; equations and systems of equations, complex numbers and properties of vectors; determinants and matrices; inequalities and series.

Math 111 Algebra 5-0-5

Prerequisite: Two units of high-school algebra or Spst 099

Systems of equations; exponents and radicals; quadratic functions, graphs of functions; ratios, proportion and variation; complex numbers; higher-degree equations; inequalities; logarithms; progressions and determinants.

Math 112 Trigonometry 5-0-5

Prerequisite: Math 111

Trigonometric functions, plane right triangles, reduction formulas, fundamental relations, identities, addition formulas, double angles, half angles, inverse functions, solution of oblique triangles, logarithms, and complex numbers.

Math 201 Calculus with Review 5-0-5

Prerequisite: Math 253 Corequisite: Math 202

Math 202 Calculus Review (Audit Only) 3-0-3

Prerequisite: Math 253 Corequisite: Math 201

Math 201/202 covers the same material as Math 254 but includes an extensive

non-credit review of necessary prerequisite mathematics. Students who register for Math 201 are required to audit Math 202.

No student may receive credit for both Math 201 and Math 254.

Math 205 Probability and Statistics **3-0-3**

Prerequisite: Math 253

Basic axioms of the probability theory. Various special distributions, mathematical expectations and moments, random and other types of sampling, presentation of data, confidence intervals, and tests of hypotheses.

Math 215 Computer Programming **3-0-3**

Prerequisite: Math 110 or Math 112

A fundamental course in Fortran IV programming.

Math 245 Finite Math **5-0-5**

Prerequisite: Math 253

Topics covered include set concepts and operations, combinations, permutations, elementary probability theory, linear systems of equations, matrix algebra, and graphical linear programming. Emphasis is given to applications of these procedures.

Math 253 Analytic Geometry and Calculus **5-0-5**

Prerequisite: Math 110 or Math 112

An introduction to the analytic study of the straight line and conic sections. A survey of fundamentals of calculus, including the differentiation and integration of polynomials. Applications to rectilinear motion, maxima and minima, areas, centroids, fluid pressure, and work.

Math 254 Calculus **5-0-5**

Prerequisite: Math 253

A continuation of Math 253. Topics include differentiation and integration of transcendental functions, integration formulas and procedures, series, polar coordinates, partial differentiation, and multiple integration.

Math 306 Differential Equations I **3-0-3**

Prerequisite: Math 201 or Math 254

This course covers methods of solving ordinary differential equations of first and second order. Applications to engineering technology problems are stressed.

Math 307 Differential Equations II **3-0-3**

Prerequisite: Math 306

A continuation of Math 306. The following topics are discussed in terms of their application to physical problems: simultaneous differential equations, the Laplace transform, solutions to differential equations using series, partial differential equations, and boundary-value problems and Fourier series.

Math 315 Advanced Fortran Programming **3-0-3**

Prerequisite: Math 215

A continuation of Math 215, the course includes a survey of general interest problems to be treated using advanced programming techniques. Topics include subprograms, plotting and graphs, type statements, documentation, and efficient programming techniques. *No student may receive credit for both EET 323 and Math 315.*

Math 391-395 Special Topics **variable credit – 1 to 5 hours**

Prerequisite: Junior standing

Individual study of selected topics in mathematics offered to the student who is interested in creative work.

Math 491-495 Special Topics

variable credit – 1 to 5 hours

Prerequisite: Senior standing

Individual study of selected topics in mathematics offered to the student who is interested in creative work.

MECHANICAL ENGINEERING TECHNOLOGY**MET 111 Manufacturing Processes**

5-0-5

An introduction to the field of metal work and industrial manufacturing. Possibilities and limitations of various machine tools are developed so that the student will have a basic perspective of different materials 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.

MET 117 Engineering Drawing II

0-6-2

Prerequisite: Draw 111

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

MET 142 Metal Cutting Operations I

1-3-2

Lectures on cutting speed, shear angles, engineering materials, machine tools, safety practices, stressing different machining operations for various practices, shapes, finish desired, size control, and production efficiency. This is correlated with fundamental machine exercises to acquaint students with the problems involved in metal cutting.

MET 143 Metal Cutting Operations II

1-3-2

Prerequisite: MET 142

Lectures on tool grinding, gages, and their use in production, gears (types of gears and methods of manufacture), milling operations, metal finishing for accuracy and surface finish. The lectures are followed by laboratory exercises that stress the principles involved in metal cutting.

MET 144 Metal Joining

1-3-2

Lectures are given on related information dealing with welding gases, safety practices, filler material used, engineering materials, efficiency of joining operations, ac and dc machines, electrodes, safety practices, and testing of joining operations, stress and distortion, and symbols used in industry. The lectures are followed with laboratory exercises that stress the principles involved in metal joining.

MET 210 Machine Sketching

0-6-2

Prerequisite: Draw 111

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

MET 301 Fluid Mechanics

5-0-5

Prerequisites: Math 201 or Math 254, MET 319 or MET 322

This course is designed to provide a broad range of introductory material concerning fluids, and to develop the basic physical laws governing fluids – both compressible and incompressible. The course includes material on the static and dynamic characteristics of fluids, fluids as a source of power, and fluid-measurement devices.

- MET 312 Advanced Welding** 1-3-2
Prerequisite: MET 144
A continuation of MET 144, the course includes the teaching of additional techniques, testing of welds, and the study of new and additional welding processes.
- MET 314 Engineering Materials** 4-3-5
A study of metallic and nonmetallic materials including the nature of these materials, their engineering properties, and methods of conducting and interpreting the results of the common tests of these materials. Laboratory sessions include heat treating, hardness testing, and microscopic study of heat treatments.
- MET 318 Graphical Solutions** 1-3-2
Nomography and graphical mathematics.
- MET 319 Thermodynamics I** 5-0-5
Prerequisites: Math 253, Phys 203
A study of the fundamental laws of thermodynamics and the properties of systems. Basic gas cycles and compressors are considered, including the internal-combustion engines.
- MET 320 Thermodynamics II** 5-0-5
Prerequisite: MET 319
This course is a continuation of Thermodynamics I. It delves further into cycle analysis, especially the steam cycle and the refrigeration cycle. The study of heat transfer is also introduced.
- MET 322 Thermodynamics** 5-0-5
Prerequisites: Math 253, Phys 203
A study of the fundamental laws of thermodynamics and the properties of systems. Basic gas cycles, internal-combustion engines, combustion, and the steam cycle are studied. *This course is for students not in the MET Department and may not be taken for credit by MET students.*
- MET 323 Statics** 3-0-3
Prerequisite: Phys 201 or concurrently
Calculation of forces acting on machine parts, frames and structures; equilibrium of concurrent and coplanar force systems; shear and moment diagrams.
- MET 324 Strength of Materials** 3-3-4
Prerequisite: MET 323
Stresses and strains in tension, compression, bending, and torsion. Mohr's circle of stress, pressure vessels, column action, plastic action, and relation to material properties.
- MET 325 Machine Design I** 3-2-4
Prerequisite: Phys 203
Selection of machine elements and components for service, reliability, wear. Gears, belts, pulleys, lubrication, bearings, clutches, brakes, chains, screws, geartrains. The laboratory will illustrate the lecture material in a design case study.
- MET 328 Kinematics** 3-2-4
Prerequisite: Phys 201
The analysis of motion, velocity, and acceleration in mechanical linkages and cams. Synthesis of required mechanical function. Graphical, analytical, and numerical solutions.

- MET 331/Draw 331 Electronic Drawing** 2-2-3
Prerequisites: Draw 111, EET 111
An introduction to the techniques used for preparing electronic drawings. Study and work exercises include schematic diagrams, drawings of electronic components, connection diagrams and printed circuits, and other related exercises.
- MET 332 Metrology** 3-3-4
Prerequisite: MET 142
Principles of metrology and the relationship of precise measurement to design practice and production processes. The theory of design and use of various precision measurement instruments will be covered. Laboratory will complement classroom topics with applications of precision measurements.
- MET 333 Numerical Control** 2-3-3
Prerequisite: MET 143
Introduction to Numerical Control as applied to drilling, milling, and turning operations. Includes formats for hand programming and the possible computer programming of numerical control tapes, preparation of hand programs, tape punching and operation of a numerically controlled machine.
- MET 341 Jig and Fixture Design** 2-3-3
Prerequisite: MET 111
Factors involved in large quantity production machine processes. Types of jigs and fixtures, different methods of gauging 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.
- MET 346 Refrigeration** 4-0-4
Prerequisite: MET 319 or MET 322
The theory and application of refrigeration. The thermodynamic analysis of the refrigeration cycle, load calculations, application, and selection of components of the system.
- MET 347 Air Conditioning I** 4-0-4
Prerequisite: MET 319 or MET 322
The basic principles of commercial and industrial air conditioning. The calculation of heating and cooling loads, steam and hot-water-heating systems, psychrometric calculations, fans and ducts, pumps and piping, heating and cooling coils, and types of equipment.
- MET 348 Air Conditioning II** 5-0-5
Prerequisite: MET 347
A continuation of MET 347.
- MET 362 Introduction to Design** 1-3-2
Prerequisites: MET 117, MET 314
The methods of solution of a moderately complex mechanical design project. This includes organizing and planning, problems analysis, solution criteria, alternatives, optimization, and design and working drawings.
- MET 373 Instruments Laboratory** 0-3-1
Applications of instrumentation including pressure gages, vacuum gages, thermometers, venturi meters, manometers, orifices, and rotameters.
- MET 391-395 Special Topics** variable credit – 1 to 5 hours
Prerequisite: Permission of the department head
Courses for the student interested in creative work.

- MET 426 Machine Design II** 3-2-4
Prerequisites: MET 324, MET 325
Part-size selection in machine elements. Application of elementary strength of materials to machine design. Shafts, springs, couplings, fasteners, castings, and weldments.
- MET 428 Dynamics of Machinery** 3-2-4
Prerequisites: MET 323, MET 328
Forces in mechanical linkages and cams in motion. Solutions by graphical, analytical, and numerical methods. A case design study in the laboratory illustrates lecture material.
- MET 433 Industrial Instrumentation and Control** 2-3-3
Prerequisite: Completion of required sequence in physics
An introduction to the basic principles of industrial instruments and control systems. Subjects covered include a survey of various primary measuring devices, control units, and final control elements. The selection and use of these elements of the control system are examined in a variety of typical industrial situations. The course is process oriented. It will be concerned with the application of equipment rather than with the details of operation of the equipment itself.
- MET 440 Tool and Die Design** 3-2-4
Prerequisites: MET 111, MET 117
The basic principles of the design of tools for the material removal, blanking, bending, forming, drawing, casting, joining, and inspection process utilizing technological, engineering, and scientific principles. Applied laboratory exercises will illustrate the course material through an overall case design approach.
- MET 441 Manufacturing Operations** 4-0-4
Prerequisite: MET 111
The organization and system of manufacturing operations including facilities, supplies and materials, procedures, processes, cost analysis and control, product development, economic decisions, and personnel.
- MET 472 Plant and Power Applications** 4-0-4
Prerequisites: MET 319, MET 325
Rating and selection of equipment, power generators, heat exchangers, compressors, pumps, fans, piping, dryers, associated processing equipment for factory and utility.
- MET 491-495 Special Topics** variable credit – 1 to 5 hours
Prerequisite: Permission of the department head
Courses for the student interested in creative work.

MILITARY SCIENCE – AIR FORCE

AEROSPACE STUDIES I

United States Military Forces in the Contemporary World

- AS 1610 Introduction to Today's Air Force** 1-1-1
United States Air Force doctrine, mission, and organization with an introduction to strategy.
- AS 1620 Air Force Operational Activities** 1-1-1
United States Air Force strategic and general-purpose forces, emphasis on their mission, employment, and weapon systems.

- AS 1630 Air Force Support Activities** 1-1-1
A survey of DoD strategic and general-purpose forces and of the support commands and operating agencies with the USAF.

AEROSPACE STUDIES II

The Growth of Air Power

- AS 2610 Air Power, the Early Years** 1-1-1
A study of the principles of manned flight and doctrine of air power from the 17th century through the 30s.

- AS 2620 Air Power, WW II to Korea** 1-1-1
An examination of the development of air-power doctrines in WW II, Berlin Airlift, and the Korean War.

- AS 2630 Air Power, the Later Years** 1-1-1
An examination of the role of air power in contemporary times including Middle East, Cuba, and Southeast Asia.

AEROSPACE STUDIES III

The Professional Officer

- AS 3310 Air Force Management** 3-1-3
Fundamentals and functions of management. Stresses Air Force approach to management.

- AS 3320 Air Force Leadership** 3-1-3
Analysis of leadership dynamics and principles as they apply to command and management.

- AS 3330 Air Force Jurisprudence** 3-1-3
Legal aspects of Air Force command and management including the UCMJ and financial contracts.

AEROSPACE STUDIES IV

National Security in Contemporary American Society

- AS 4210 Civil-Military Relations** 3-1-3
A study of the environment of current and historic civil-military relations and the sociological aspect of the military profession.

- AS 4220 U.S. Nuclear Defense Strategy** 3-1-3
Study of the impact of technological and international developments on nuclear strategic preparedness and the policy-making process.

- AS 4230 U.S. Defense Policy** 3-1-3
An organizational behavior investigation of the formulation and implementation of U.S. defense policy.

MILITARY SCIENCE – ARMY

BASIC COURSES

- MS 104 Leadership Development** 0-1-0
Prerequisite: At least one quarter of basic ROTC or permission of the PMS
A weekly period devoted to furtherance of basic military skills, leadership, drill, and command. Command voice and individual execution are stressed.

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- MS 110 Orientation: The Military Role in Perspective** 1-1-1
Detailed orientation on the Southern Tech ROTC Program; the role of the military officer; the national security organization; Department of the Army mission and organization.
- MS 120 Terrain Analysis and Land Navigation** 1-1-1
Prerequisite: At least one quarter of basic ROTC or permission of the PMS
A study of military maps and general photographs for terrain analysis and land navigation. A study of military symbology in operational planning.
- MS 202 Military Skills** 1-1-0
Prerequisite: At least one quarter of basic ROTC or permission of the PMS
A course organized to develop essential military skills required by the small-unit leader, to include weapons, first aid, communications, and military intelligence.
- MS 204 Leadership Development** 0-2-0
Prerequisite: At least one quarter of basic ROTC or permission of the PMS
A weekly period devoted to furtherance of basic military skills, leadership, drill, and command. Command voice and individual execution are stressed along with physical training.
- MS 220 Seminar on Communications and Instructional Methods** 2-1-2
Prerequisite: At least one quarter of basic ROTC or permission of the PMS
Studies in fundamental techniques and methods of instruction with emphasis on individual presentation, group conferences, and critiques.
- REQUIRED ADVANCED COURSES**
- MS 300 Analysis of Command and Leadership** 2-1-2
Prerequisite: Advanced ROTC standing
A study of group dynamics, individual motivation, and the function of leadership at the small unit-level. An examination of peer-group relations.
- MS 304 Leadership Development** 0-1-0
Prerequisite: Advanced ROTC standing
A weekly period devoted to furtherance of intermediate leadership and management skills, stressing effective oral communications and instructions.
- MS 310 Tactical Decision Making** 3-1-3
Prerequisite: Advanced ROTC standing
Application of tactical decision making at small-unit level. Practical experience in planning tactical operations.
- MS 400 The Military Team and the Junior Officer** 3-1-3
Prerequisite: Advanced ROTC standing
A study of the broad principles, concepts, and operations of the combined arms team and its supporting elements from other branches and services. Emphasis is placed on the role of the junior officer in today's army.
- MS 404 Leadership Development** 0-1-0
Prerequisite: Advanced ROTC standing
A weekly period devoted to furtherance of advanced leadership and management skills. Cadets plan, organize, and execute the entire leadership-development program.
- MS 410 Military Administrative Operations** 2-1-2
Prerequisite: Advanced ROTC standing
A study of the basic concepts and fundamentals of military administration and military justice.

MILITARY SCIENCE – NAVY

- NS 1001 Naval Organization and Sea Power** 2-1-2
Introduction to structure and principles of naval organization, terminology, customs and uniforms, missions of the Navy as they relate to sea power and maritime affairs.
- NS 1002 Naval Ship Systems I** 2-1-2
Discussion of naval ship design and construction. Examinations of concepts and calculations of ship stability characteristics. Introduction to shipboard damage control.
- NS 1003 Naval Ship Systems II** 2-1-2
Prerequisite: NS 1002 or consent of the department
Shipboard propulsion, electrical, and auxiliary engineering systems are examined. Nuclear propulsion, gas turbines, and other developments in naval engineering are presented.
- NS 2001 Naval Management** 2-1-1
Relationships between fundamental principles of organization and management and the naval organization are explored. Topics include human relations, management functions, supervision, and subordinate evaluation.
- NS 2003 Military Law** 2-1-1
Essential elements of military law peculiar to the naval service are discussed. International law pertinent to maritime affairs and the Code of Conduct are covered.
- NS 2012 Sea Power and Maritime Affairs** 2-1-2
A survey of the broad principles, concepts, and elements of the topic with historical and modern applications to the United States and other nations.
- NS 3001 Navigation I** 3-2-3
Theory and technique of navigation at sea. Areas of emphasis: dead reckoning, piloting, rules governing waterborne traffic. Practical applications utilizing nautical charts, tables, and instruments.
- NS 3002 Navigation II** 3-2-3
Prerequisite: NS 3001 or consent of the department
Determination of position at sea using the marine sextant to observe heavenly bodies, principles/applications. Utilization of advanced electronic navigation systems is also introduced.
- NS 3003 Naval Operations** 3-2-3
Prerequisite: NS 3002 or consent of the department
Elements and principles of naval operations. Command responsibility, tactical doctrine, communication procedures, and relative movement problems introduced. Practical applications include review of basic navigation techniques.
- NS 4001 Naval Weapons Systems I** 3-1-3
Prerequisites: Calculus, college physics
A fundamental working knowledge of weapon system components and their contribution to the overall system is provided. The relationships of systems and subsystems are explored.
- NS 4002 Naval Weapons Systems II** 3-1-3
Prerequisite: NS 4001
Employment and utilization of naval weapons systems are studied. An understanding of the capabilities of weapon systems and their role in the Navy's strategic mission.

NS 4003 Naval Personnel Administration

3-1-3

Prerequisite: NS 2001

Broad areas of personnel administration and management are covered using the case method. Topics include promotion policy, evaluation of personnel performance, training and leadership requirements.

PHYSICS**Phys 201 Mechanics**

4-2-5

Prerequisite: Math 112 or concurrently

An introduction to mechanics. The subject matter includes systems of units, conditions for equilibrium, translational motion, Newton's laws of motion, work, energy, momentum, uniform circular motion, gravitation, elasticity, harmonic motion, rotational motion, and the statics and dynamics of fluids. Laboratory exercises supplement the work in the classroom.

Phys 202 Electricity and Magnetism

4-2-5

Prerequisite: Phys 201

An introduction to electromagnetic theory and its simpler applications. The subject matter includes electrostatic forces, potential, capacitance, electric current, dc circuits, magnetic forces and fields, electromagnetic induction, inductance, ac circuits, and electromagnetic radiation. Laboratory exercises supplement the work in the classroom.

Phys 203 Heat, Sound, Light, and Modern Physics

4-2-5

Prerequisite: Phys 201

An introduction to the theories of heat, sound, and light and a study of their simpler applications. The subject matter includes thermometry, calorimetry, heat transfer, thermodynamics, sound, reflection and refraction of light, mirrors, lenses, interference, diffraction, and polarization. The modern-physics segment includes brief considerations of relativity, atomic structure, radioactivity, and nuclear energy. Laboratory exercises supplement the work in the classroom.

Phys 311 Engineering Physics

3-0-3

Prerequisites: Completion of required sequence in physics, Math 253 or concurrently

A look at general physics through the use of simple calculus and vector methods. Subject matter covers mechanics, heat, electricity, and magnetism and stresses the application of physical principles to solving problems in engineering technology and other fields.

Phys 370 Modern Physics

3-0-3

Prerequisite: Completion of required sequence in physics

A survey of some modern physical theories. Subject matter includes special relativity, general relativity, quantum theory, atomic and nuclear structure, fusion, fission, reactors, accelerators, and a discussion of antimatter.

Phys.371 Radiation Physics

3-0-3

Prerequisite: Completion of required sequence in physics

A survey of various types of radiation, involving radioisotopes, radiation detection and safety, the interaction of radiation with the living cell and other matter. The subject matter includes the photoelectric effect, Compton effect, pair production, electromagnetic radiation, charged particles, and x-rays. Demonstrations and field trips to the Georgia Tech nuclear facilities are employed to supplement the lectures.

Phys 372 Nuclear Physics

3-0-3

Prerequisite: Completion of required sequence in physics

A study of the nucleus, nuclear reactions, binding energy, packing functions,

radioactivity, fission, fusion, radiation detection, and types of reactors. Lectures are supplemented by demonstrations and field trips to nuclear facilities.

Phys 373 Peaceful Uses of Nuclear Energy 3-0-3

Prerequisite: Completion of required sequence in physics

This course illustrates to the student how nuclear energy can be widely used to build a peaceful world. First, an introduction to the atom, the nucleus, radioactivity, and the source of nuclear energy; then a survey of uses of nuclear energy in agriculture, medicine, industry, electrical-energy production, dating, crime detection, space exploration, and other fields.

Phys 374 Introduction to the Physics of Elementary Particles 3-0-3

Prerequisite: Completion of required sequence in physics

This course offers a first introduction to the physics of elementary particles, emphasizing physical concepts rather than mathematical techniques. Topics include production and detection of elementary particles, the ordering of elementary particles, the eight-fold way, the quark model, symmetries, and strong, electromagnetic, and weak interactions.

Phys 375 Introduction to Nuclear Radiation 4-2-5

Prerequisite: Consent of instructor

This course provides the physical basis for understanding the effects of ionizing radiation on matter, for developing a philosophy of radiation for individuals and the environment, and for implementing radiation-protection programs.

Phys 377 Principles of Health Physics 4-0-4

Prerequisite: Phys 375 or consent of instructor

An introduction to the practice of health physics, this course emphasizes the biophysical bases of radiation-protection criteria. It provides an understanding of the philosophy and methodology of Nuclear Engineering Technology. Several weeks of the course will deal with the fundamentals associated with the operation of a nuclear reactor by using the nuclear-reactor simulator at Southern Technical Institute.

Phys 379 Applied Health Physics 3-2-4

Prerequisite: Phys 377 or consent of instructor

This course is designed to acquaint the student with the practice of health physics in our society. Classroom description will be enhanced by laboratory practice simulating the control of radiation in industry and medicine. Topics covered include personnel monitoring, bioassay, air sampling and respiratory protection, radiation surveys of nuclear reactors, accelerators, radioisotope laboratories, and x-ray installations, emergency planning and control of emergency conditions, professional ethics and judgment, and governmental regulation of ionizing radiation.

Phys 390 Descriptive Astronomy 3-0-3

Survey of the solar system, stars, nebulae, galaxies, stellar evolution, and cosmology.

Phys 391-395 Special Topics variable credit – 1 to 5 hours

Prerequisite: Junior standing

Special topics selected by the department. Offered on a demand basis.

Phys 480 Science Seminar 1-0-1

Prerequisites: Completion of required sequence in physics, Math 253

This course consists of lectures on various subjects in the fields of the sciences and mathematics. Each session includes a question-and-discussion period. Subjects vary and the students have a voice in choosing the topics to be covered.

Phys 491-495 Special Topics variable credit – 1 to 5 hours

Prerequisite: Junior standing

Special topics selected by the department. Offered on a demand basis.

PSYCHOLOGY**Psyc 112 Psychology**

5-0-5

A study of the application of psychology to industrial organizations. Material discussed includes such areas as: causation in behavior, attitudes, frustration, morale and group processes, supervisory leadership, proficiency measurement, selection and placement, training, man-machine design, accidents and their prevention, fatigue and job interest, and the psychological factors in labor turnover. Text: At the level of Smith and Wakely, *Psychology of Industrial Behavior*.

SOCIAL STUDIES**Socs 299 Career Planning and Preparation**

1-0-1

Exploration of employment opportunities in engineering technology. Emphasis on the methods of identifying and securing the right position. Includes letter and resume writing and interview techniques.

SPECIAL STUDIES**Spst 090 Reading Improvement (Institutional Credit Only)**

5-0-5

A course in developing skills in reading necessary for competent and efficient work in college-level courses. Emphasis is on study techniques, work-attack skills, vocabulary, comprehension, reading rate, and critical reading.

Spst 095 Preparatory English (Institutional Credit Only)

5-0-5

Review of correct grammar and punctuation. Study of effective syntax in communication through use of exercises. Lectures, recitations, and written exercises stress effective communication.

Spst 096 Geometry (Institutional Credit Only)

5-0-5

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

Spst 097 Basic Concepts for the Physical Sciences (Institutional Credit Only)

5-0-5

An introduction to science and its methods. The course is designed for the student with little or no background in the physical sciences. Emphasis is on solving problems using a systematic approach. Illustrative material is drawn from mechanics.

Spst 099 Preparatory Algebra (Institutional Credit Only)

5-0-5

A review of the fundamentals of algebra.

TEXTILE ENGINEERING TECHNOLOGY**TET 111 Fibers and Fabrics**

3-0-3

A study of the major chemical and physical properties of vegetable, animal, mineral, and man-made fibers. Emphasis is on the fibers' end uses, with particular stress on the properties the fibers give to fabric hand, drape, wrinkle resistance, wear properties, and permanent press.

TET 224 Yarn Manufacturing I

3-0-3

Prerequisite: Phys 201

Theory and practice of opening, picking, carding, and drawing, supported by quality measurements at each step.

- TET 225 Yarn Manufacturing II** 3-0-3
Prerequisite: TET 224
The theory and practice of combing, roving, spinning, twisting, winding, and warping operations, supported by appropriate quality measurements.
- TET 262 Textile Chemistry and Dyeing** 3-0-3
Prerequisite: Chem 201
General methods for bleaching, dyeing, and finishing natural and synthetic fibers and fabrics.
- TET 312 Industrial Photography** 2-3-3
A study of basic photography, starting with still cameras and building up to high-speed stroboscope work in simulated and actual slow-motion studies. The course includes darkroom manipulations, still-camera use in "freezing" motions regardless of speeds, movie and television cameras, and composition in photography. All are useful in today's industry.
- TET 353 Weaving I** 3-0-3
Prerequisite: Phys 201
Theory and practice of warping and slashing; elements of fabric design, and fabric analysis.
- TET 354 Weaving II** 3-0-3
The physics of loom motions added to the theory and operation of fly-shuttle and shuttleless looms; dobby; jacquard; and box motions. The course includes elements of fabric geometry and fabric cover.
- TET 355 Textile Laboratories** 0-6-2
Prerequisite: Third-quarter sophomore standing or consent of instructor
The concise applications of the important parts in textile production and quality control. Replaces individual laboratories traditionally assigned to textile processes. Two term papers required of approved topics.
- TET 364 Principles of Knitting** 3-0-3
Prerequisite: Junior standing
The principles of circular, flat, warp, and double-knits.
- TET 391-395 Special Topics** variable credit – 1 to 5 hours
Prerequisite: Permission of the department head
A course for the student interested in creative work or in special problem areas within the textile industry.
- TET 444 Testing and Quality Control** 3-3-4
Prerequisites: Phys 201, IET 227
Fundamentals of the testing methods normally found in the plant laboratory – Uster Evenness Tester, Pressley Index, Digital Fibrograph, Microare, twist counting, various yarn and strength tests plus statistical analysis of the test results.
- TET 462 Dyeing Man-Made Fibers** 3-3-4
Prerequisites: Chem 321, TET 262
The selection of the proper dyestuff to color the dyeable fibers in the required shades. The course includes a study of industrial dyeing equipment.
- TET 491-495 Special Topics** variable credit – 1 to 5 hours
Prerequisite: Permission of the department head
A course for the student interested in creative work or in special problem areas within the textile industry.

TEXTILE MANAGEMENT

TMT 101 Textile Industry Survey

5-0-5

An overview of textiles, fibers, and polymers and the associated complex of industries from raw materials to finished products including textile arts and textile management.

TMT 102 Fiber Physics

5-0-5

The physical structure and properties of fibers are examined and related to end-use performance.

TMT 103 Yarn Processing

5-0-5

Prerequisite: TMT 102

Fundamental principles of processing natural and man-made staple fibers into yarn, and basic properties of spun yarn.

TMT 104 Fabric Structure, Processing, and Properties

5-0-5

Prerequisite: TMT 103

A study of woven, knit, nonwoven, and carpet structure, production, and properties.

TMT 105 Chemical Processing of Textile Materials

5-0-5

Prerequisite: TMT 102

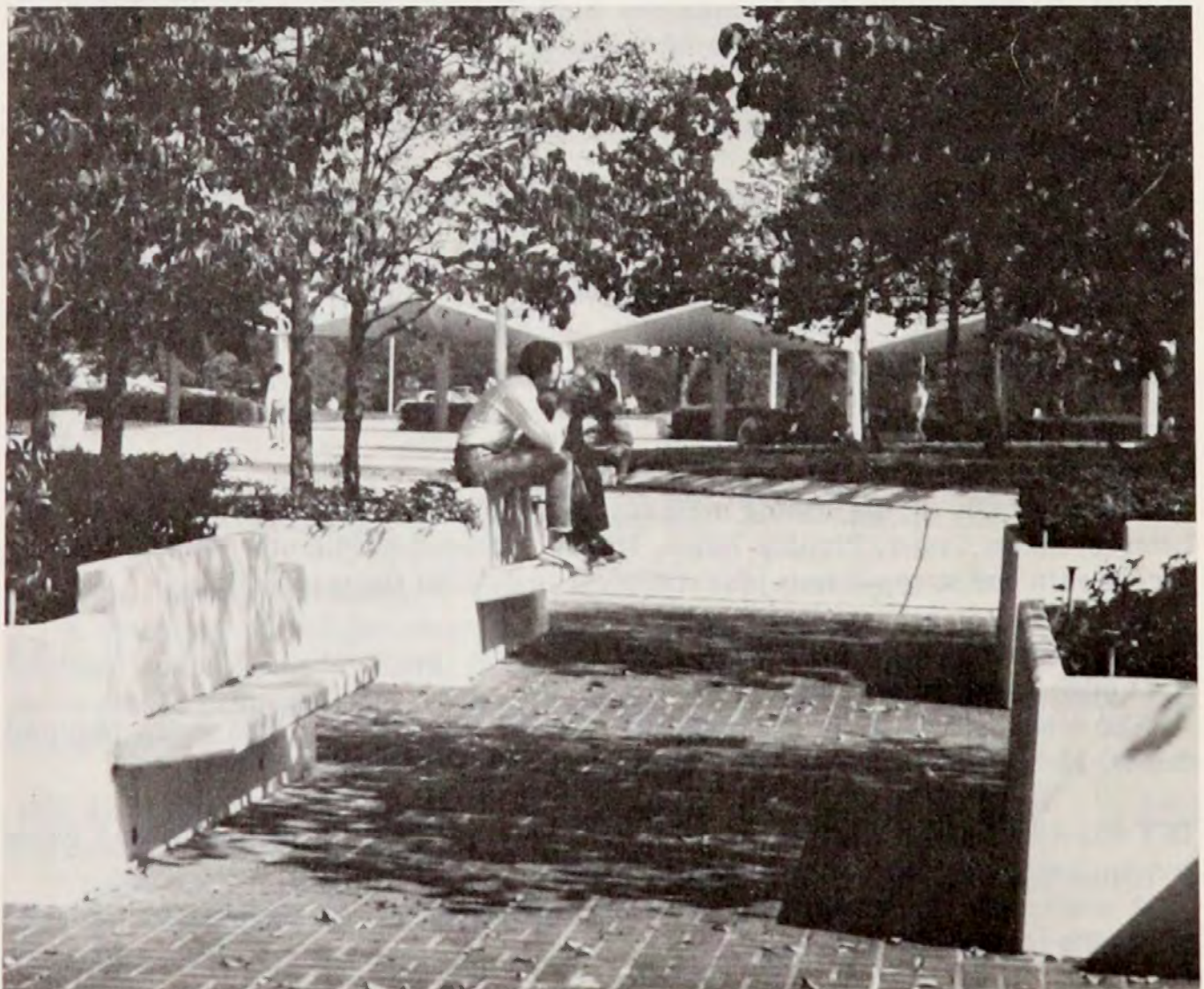
Chemical principles involved in the processing of textile materials.

TMT 106 Analysis of Textile Materials

5-0-5

Prerequisite: TMT 104

The methods used in the textile industry for assessing the effect of process variables on the end-use performance of textile products are examined.



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- LOCKWOOD, JOSEPH E., *Professor Emeritus, Mechanical Engineering Technology*
- MADDOX, CYRUS V., *Dean of Students Emeritus*
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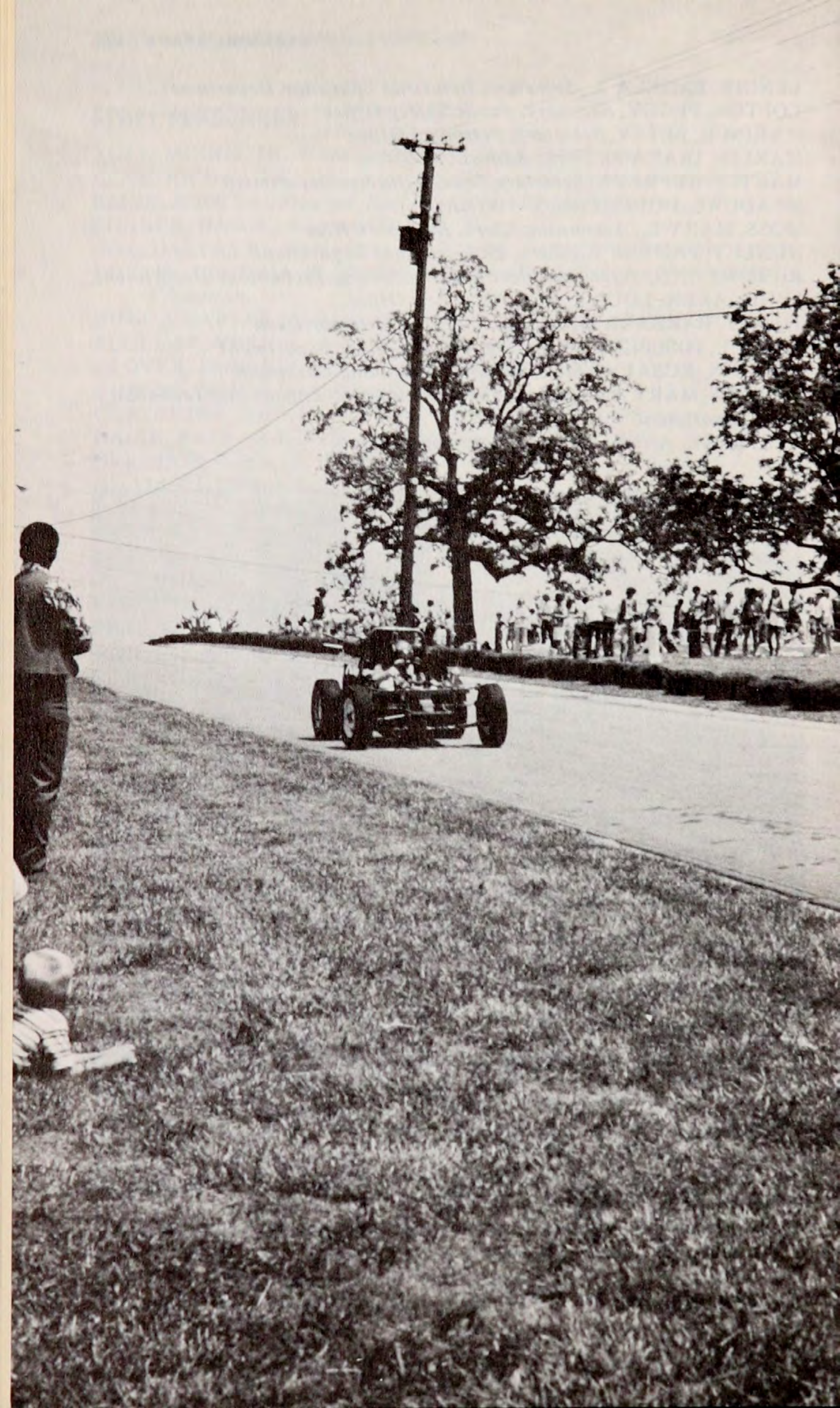
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Student Rules and Regulations

These regulations are intended to set forth the requirements of the faculty to the end that a large student body may live and work together harmoniously with a minimum of friction and misunderstanding. Each student is expected to be a law-abiding citizen and to obey the laws of the City of Marietta, Cobb County, the State of Georgia, and the United States.

Responsibility for Notices

Every student will be required to have a box in the post office of Southern Technical Institute which will be his or her official address, and he or she is expected to check this box each school day. Students are also expected to be aware of the contents of all general notices including those appearing in the official school newspaper.

Academic Regulations

I. Attendance Regulations

- A. General: Classes start on the hour before noon, and ten minutes after the hour after noon, and last fifty minutes, excepting certain evening school classes. If an instructor is late in meeting his or her class, the students will wait fifteen minutes. If the instructor has not arrived by then, they may leave, unless notified to wait for his or her arrival.
- B. Excused Absences: Absences may be excused by the instructor for the following reasons:
1. Illness of the student or a member of the student's immediate family
 2. Death, funeral, or wedding in the immediate family
 3. Interview for employment by the Southern Technical Institute Placement Bureau
 4. Conflicting college duties, e.g., athletic trip, authorized field trip

Absences may be excused for other reasons at the discretion of the instructor. All applications for excuses must be made in writing to the instructor within one week of the student's return to class, and should be accompanied by written evidence, e.g., a physician's letter.

Within one week after the student's return to class, after an excused absence, he or she must make arrangements to make up the assigned work, e.g., test, lab report.

- C. Absences: (Excuses not required.) Students will be allowed one absence for each hour that a lecture class is scheduled per week, all laboratory, theme, test, and speech periods excepted, i.e., one such absence for a one-hour class, three for a three-hour class, and five for a five-hour class — in effect a week's absence.

No laboratory period may be missed, and every test, theme, speech, or similar piece of assigned work missed must be excused under the provisions of B (1-4) as listed above before the student is granted the right to make up the work. If the work is not made up, the student must be given the grade of zero on that work.

Within the first calendar week of each quarter, the individual instructor shall notify the students in his or her class of his or her policy for absences beyond the maximum as permitted in these regulations.

No unexcused absences are allowed for announced examinations, quizzes, or laboratory sessions.

Any student who is currently on the Dean's List is eligible for unlimited absences.

- D. Tardies: A student arriving at class late, but within fifteen minutes after the time for starting the recitation, is tardy. Tardiness in excess of fifteen minutes is counted as an absence. Penalties attached to unexcused absences apply to tardies. If unavoidably late, the student should invariably remain after the class in order to offer an explanation to his or her professor.

Whenever a student comes to class after the roll has been taken, it is his or her responsibility to report to the professor after the

class and see that the mark has been changed from absence to tardy.

- E. Students who exceed the maximum number of absences allowed under these regulations may endanger their academic average. It is the prerogative of the instructor to award a penalty grade of "F" to any student who fails to meet the minimum attendance requirements under these regulations.

II. Scholastic Regulations

A. The grading system at Southern Tech is as follows:

- A – Four quality points
- B – Three quality points
- C – Two quality points
- *D – One quality point
- F – No quality points. Must be repeated if a required subject. This grade is assigned for a student whose scholastic performance is unsatisfactory.
- WF – Withdrawn officially after the end of the fifth calendar week of the quarter. This grade will also be assigned if a student is removed from class under II G, as listed on page 139. A grade of "WF" in a course will be counted in the student's scholastic average as a failing grade.
- W – Withdrawn officially on or before the end of the fifth calendar week of the quarter. Withdrawn officially from school after the end of the fifth calendar week of the quarter with the approval of the Dean.

Official withdrawal must be initiated by the student and may be accomplished by one of the following methods:

1. Execution of an "Official Withdrawal" form
2. Written request from the student received by the Office of the Registrar on or before the prescribed date for official withdrawal

Courses carrying the "W" grade will not be counted in the student's scholastic average.

- I – Incomplete. The mark is assigned only when the student is incomplete in some part of the subject and his or her work at this point is passing. The student must have a valid excuse for being incomplete in his or her work. An incomplete must be removed during the next quarter in which the student is in residence. Otherwise, the Registrar shall convert the "I" into an "F." The subject will then have to be repeated.

- V – Assigned when the course has been audited. No credit is given. This mark may not be used at any future date as a basis for granting credit. Students wishing to audit must officially notify both their instructor and the Office of the Registrar. Such notice may be accomplished by completion and submission of the official audit form to the Office of

*It is the prerogative of the degree-granting department to require a grade of "C" or better in any or all departmental courses.

the Registrar no later than the last day for dropping and adding a course for the quarter.

No student will be allowed to withdraw from a course after the final class day of the quarter.

- B. Mid-Term Deficiency Reports: Prior to the end of the fifth week of each quarter instructors will notify their students of any deficiencies. Such notice shall be given in time to allow the student to withdraw from the class without penalty.
- C. Failures: A student whose final mark in a subject is "F" has a failure in that subject. The student must repeat the subject in class with a passing grade before credit can be allowed, except as noted below.

Candidates for graduation are entitled to one re-examination (final) in a course failed during their final quarter. This statement does not apply to subjects taken during any quarter prior to the student's final quarter. The re-examination must be given at least three days prior to commencement.

In subjects made up of class and laboratory work, both portions are considered essential; and the grades on each will be combined at the end of the quarter and reported as one. Failure in either class or lab may result in failure of the entire course.

D. Academic Standing:

- 1. Credit Hours: Academic standing is based on the "quarter credit hour" system. One quarter credit hour corresponds to one hour per week of classroom work for a quarter, or to three clock hours or its equivalent of laboratory work per week for a quarter.
- 2. Quality Points: Quality points are assigned as follows for each quarter credit hour with a grade of:
 - A – 4 points
 - B – 3 points
 - C – 2 points
 - D – 1 point
 - F – No points
 - WF – No points
- 3. Scholastic Average: The scholastic average is computed by dividing the quality points earned by the number of credit hours for which the student has been scheduled and in which he or she has received a final grade of A, B, C, D, F, or WF. Grades assigned in courses which carry institutional credit only are not included in the scholastic average.

E. Classification of Students:

- 1. Students shall be classified at the end of each quarter by the Office of the Registrar on the basis of the number of quarter credit hours which they have passed in accordance with the following schedule:

Classification	Credit Hours Earned
Freshman	0 – 49
Sophomore	50 – 99
Junior	100 – 149
Senior	150 and above

2. Students scheduled for twelve credit hours or more are classified as full-time students.
- F. **Maximum Load:** Students may register for up to 21 quarter credit hours in any particular quarter. *Students on probation may register for a maximum of 15 quarter credit hours for the quarter on probation.*
- G. **General Requirements:** The faculty reserves the right to remove from school or class any student whose behavior is of a disruptive nature. Removal of a student under this provision will result in a "WF" grade.
- H. **Scholastic Standing:**
1. **Dean's List:** Full-time students with a scholastic average of 3.5 or better for the current quarter and who are not subject to any disciplinary action shall be on the Dean's List, which is published each quarter.
 2. **Good Academic Standing:** A student not on academic probation is in good academic standing.
 3. **Academic Warning:** A student whose average scholastic average drops below the minimum satisfactory scholarship requirement as listed below for any quarter shall be placed on academic warning.

Classification	Credit Hours	Scholastic
	Earned	Average
Freshman	0 – 49	1.5
Sophomore	50 – 99	1.7
Junior	100 – 149	1.9
Senior	150 and above	2.0

A student whose scholastic average for any quarter is 1.5 or below shall be placed on warning regardless of his or her previous or overall average.

4. **Academic Probation:** A student whose overall scholastic average remains below the minimum satisfactory scholarship requirement for two successive quarters of enrollment shall be placed on academic probation. A student on probation may register for a maximum of 15 quarter credit hours for the quarter on probation.
 5. **Academic Dismissal:** A student whose overall scholastic average remains below the minimum satisfactory scholarship requirement for three successive quarters of enrollment shall be academically dismissed for unsatisfactory scholarship and dropped from the rolls. Any student whose overall scholastic average remains below the minimum satisfactory scholarship requirement for three successive quarters of enrollment, but whose quarterly average is satisfactory may be continued on probation by the faculty.
- I. **Readmission:** A student who is dropped for unsatisfactory scholarship may petition the Committee on Standing for readmission no later than one week prior to the beginning of the second quarter after the quarter of his or her dismissal.

III. Scheduling

- A. Auditing of courses will be permitted to a regularly enrolled student who has obtained the approval of his or her adviser and of the departments concerned. Such courses count at full value in computing the student's load. No credit is granted for courses scheduled on an audit basis, and students are not permitted to change to or from an auditing status except through the regular procedures for schedule changes. The mark for auditing is "V" (visited) and this mark should at no time be changed to a "W" on the basis of the auditor's attendance in the course. The mark of "V" will have no effect upon the student's scholastic average, and students will not be permitted to receive credit at any future date for their participation in a course as an auditor.
- B. No course in which the student has been assigned a grade of "C" or better may be repeated for course credit toward a degree.

IV. Examinations

- A. The Faculty of the Department will determine which courses in their department will include a final exam. In addition to other course objectives and standards for evaluating students, the final-exam requirement will be distributed to students for each course.
- B. Exemptions:
 1. Bachelor degree candidates may only exempt all final exams during the quarter in which they take their Baccalaureate Comprehensive Examination. It will be the responsibility of the student to notify the instructor, prior to the end of the fifth calendar week of the quarter, whether this exemption will be used for the course.
 2. The Faculty of the Department will determine whether students who have an average of "A" in the course may be exempted from final examinations. The departmental faculty also will decide to which courses this exemption applies, and students in each course will be notified.
- C. Early Final Examinations: In order to facilitate graduation certification for associate degree candidates during the spring quarter, these candidates will be administered early final examinations. The exams will be given at a time determined by the instructor, which will enable the reporting of final grades for these students as per the Registrar's established deadline. It will be the responsibility of the student to notify the course instructor of his or her associate-degree candidate status.

This early final examination policy will also apply during the spring quarter to bachelor-degree candidates who have previously satisfied the requirements of the Baccalaureate Comprehensive Examination and who, therefore, are ineligible to exempt final exams.

V. Graduation Requirements

- A student is eligible for graduation when he or she (1) has satisfactorily completed the required number of hours specified by

the curriculum of the program of study in which he or she is specializing, (2) has achieved the necessary scholastic average, (3) has paid all required fees, fines, and other financial obligations owed the college, (4) has filed with the Registrar the official "Petition of Admission to Candidacy for a Degree," (5) has been certified as competent in reading and writing the English language — through the University System Regents' Testing Program, and (6) has satisfactorily passed an examination upon the provisions and principles of the United States Constitution and the Constitution of Georgia, including the study of and devotion to American institutions and ideals, as required by the State of Georgia and the Board of Regents of the University System of Georgia.* In addition to the above requirements, students who seek the baccalaureate degree also must satisfy the requirements of the Comprehensive Examination required of all University System graduates.

A student must submit his or her formal petition for Admission to Candidacy for a Degree during the first six weeks of the quarter preceding his or her expected final quarter in residence. (This is interpreted to mean the previous quarter in residence, preceding the final quarter in residence. All fall-quarter petitions for students not in school in summer should be made in the spring quarter of that year, and all co-op students should petition the quarter before the work quarter. All students are encouraged to petition early if they feel they have reached eligibility to petition.)

To be a candidate for either an associate or baccalaureate degree, a student must have passed all courses required for the degree, have a cumulative scholastic average of at least 2.0 in all work scheduled, and have merited the recommendation for the degree by the faculty and the Dean of Southern Technical Institute.

No student may be considered as a candidate for a degree unless the final 30 credit hours required for the associate degree and the final 45 credit hours required for the bachelor's degree are earned in residence at Southern Technical Institute. To obtain a second associate degree, a student must complete all major required courses for the degree and earn credit for a total of at least 30 credit hours in excess of the requirements for any previous degrees earned. A candidate for a bachelor's degree must complete all major required courses for the degree and earn a minimum of 95 quarter credit hours above all associate degrees. To obtain a second bachelor's degree, a student must complete all major required courses for the degree and earn credit for a total of at least 45 credit hours in excess of the requirements for any previous degrees earned.

The diploma of a candidate for a degree will bear the date of the end of the quarter in which the degree is awarded. Only one graduation exercise a year is held — in June, at the end of the spring quarter.

For graduation "with highest honor," the minimum scholastic average is 3.9. For graduation "with high honor," the minimum scholastic average is 3.7. For graduation "with honor," the minimum

*Credit for Hist 251 or Hist 252 satisfies this Constitution requirement.

scholastic average is 3.5. For graduation with honor, with high honor, or with highest honor, a candidate must have a minimum of 60 hours in residence for the associate degree and a minimum of 90 hours in residence for the bachelor's degree.

Work completed more than ten years prior to the time at which the degree is to be awarded may be credited toward the degree only if validated by the faculty. This will not apply to work completed at Southern Tech if the student's enrollment has been continuous since initial date of matriculation.

VI. Regents' Testing Program

"Demonstrated competence in the areas of reading and writing" is a requirement of graduation from Southern Technical Institute. This requirement must be met by attainment of a passing score on the Regents' Testing Program Test. Students become eligible to take the test as soon as they have earned 45 or more credit hours, either by study at Southern Tech or by transfer from another college. Students must take the test in the quarter after they have earned 75 or more credit hours. Students who do not take the test the first quarter they are enrolled after earning 75 hours will not be allowed to register until they have taken the test.

Students who do not obtain a passing score on the Regents' Testing Program will be required during either of the next two quarters in residence to enroll in a special remediation course, English 105. A passing grade in English 105 is required before attempting the Regents' Test a second time. Students may then retake the Regents' Test at each offering until a passing score is obtained.

Transfer students who have passed the test at another school in the University System satisfy this graduation requirement and should check to see that an appropriate notation is made on their permanent record card.

Students whose native language is not English and students with serious physical handicaps can meet special criteria instead of the Regents' Testing Program Test. The special criteria are set up by the English and Social Studies Department.

VII. ROTC Regulations

A. General:

1. Southern Tech offers both the four-year and the two-year programs as provided for in the 1964 ROTC Vitalization Act.
2. The entire ROTC program at STI is voluntary.

B. Basic Course:

1. A maximum of six hours of completed basic ROTC credit can be counted by the student toward his or her degree in those degree programs which do not exclude ROTC credit when approved by the faculty.

C. Advanced Course:

1. A maximum of nine hours of credit may be applied toward a degree in those degree programs which do not exclude ROTC credit when approved by the faculty.

VIII. Student Records

In accordance with the policy of the Board of Regents of the State of Georgia and under the provisions of the Family Educational Rights and Privacy Act of 1974, Southern Tech maintains various educational records for each matriculating student. These records are considered confidential and will not be released for use outside this institution without the written consent of the student. Exceptions to this as authorized by the Act are noted.

Student records will be considered under the categories academic or nonacademic. The following indicates the types of records maintained, the official responsible for their maintenance, and the person(s) with access to those records.

A. Academic: Those educational records which specifically pertain to or reflect the student's academic program, admission to, and progress within that program

1. Academic Department Offices:

a. Maintenance – Academic Department Head

b. Access – Departmental Faculty and their staff

c. Record Types

(1) Departmental academic record card (unofficial)

(2) Departmental copies of quarter class rolls

(3) Advisement copies of transcripts of previous college work

(4) Instructor's daily class record

(5) Co-op records and reports

(6) Credit by examination results

(7) Scholarship records and correspondence

(8) Correspondence pertaining to the student's academic program and academic standing

(9) Recommendation correspondence submitted to an employer or agency on behalf of the student

2. Admissions and Registrar's Office:

a. Maintenance – Director of Admissions and Registrar

b. Access – Director of Admissions and Registrar and staff, Dean, Associate Dean, and Dean of Students

c. Record Types

(1) Admission records including high school and college transcripts, SAT scores, and any other information submitted by or on behalf of the student for admission purposes

(2) Official permanent academic record

(3) Official quarterly class rolls

(4) Correspondence between the student and the institution pertaining to the student's academic program and academic standing

B. Nonacademic: Those educational records which do not pertain to the student's academic program or academic standing

1. Business Office:

a. Maintenance – Director of Business and Finance and staff

- b. Access – Director of Business and Finance and staff, Director of Admissions and Registrar, Dean, Associate Dean, and Dean of Students
- c. Record Types
 - (1) Statement of student current quarterly fee accounts with the institution
 - (2) Record of student financial indebtedness to the institution
 - (3) Correspondence with the student regarding financial status
 - (4) Correspondence with institutions and agencies which financially sponsor students (See exceptions.)
- 2. Office of the Dean of Students:
 - a. Maintenance – Dean of Students
 - b. Access – Dean of Students and staff, Dean, and Associate Dean
 - c. Record Types
 - (1) Student current address information
 - (2) Student current academic schedule
 - (3) Disciplinary Action Cards (nonacademic)
 - (4) Correspondence with the student concerning disciplinary action
- 3. Financial Aid Office:
 - a. Maintenance – Director of Financial Aid
 - b. Access – Director of Financial Aid and staff, Director of Admissions and Registrar
 - c. Record Types
 - (1) Parents/Students Confidential Statement (See exceptions.)
 - (2) Records of awards of financial assistance to students
 - (3) Financial assistance record of student indebtedness to the institution
 - (4) Correspondence with the student
- 4. Office of Veterans Affairs:
 - a. Maintenance – Veterans Affairs Coordinator
 - b. Access – Veterans Affairs Coordinator, Director of Admissions and Registrar, and staff
 - c. Record Types
 - (1) Records filed verifying veteran or veteran-dependency status
 - (2) Record of student quarterly VA certification
- 5. Placement Office:
 - a. Maintenance – Director of Placement
 - b. Access – As authorized by student
 - c. Record Types
 - (1) Resumes filed by students
 - (2) Copies of student authorization to release grade statement to co-op employers
- 6. Campus Police Department:
 - a. Maintenance – Chief of Police
 - b. Access – Chief of Police and staff, Dean, and Associate Dean
 - c. Record Types
 - (1) Official police reports

- C. General: Except as precluded in the Rights and Privacy Act, each student's records as listed above are open for inspection and review by that particular student. The student also has the right to request an interpretation and explanation of material included in the record, and will be given copies of the material upon request. Access to these records will be granted to the student within a reasonable period of time, but in no case will that period of time exceed 45 days after the request for access has been made.
- D. Challenges: Should the student believe that the record contains inaccurate, misleading, or otherwise inappropriate information, he or she may desire to challenge the content of the record. In that event the following procedure shall be followed:
1. Challenges to student records should be initiated by the student concerned and directed in writing to the Office of the Registrar.
 2. The challenge should contain a description of the specific record in question, the official responsible for maintaining the record, and the reason for challenging the contents of the particular record.
 3. Challenges will be submitted to the Executive Committee of the Faculty for its review. The student initiating the challenge may request to appear before the Executive Committee when the challenge is considered.
 4. The decision of the Executive Committee will be made within a reasonable period of time and forwarded to the student in writing. The decision of the Committee will also be transmitted to the Dean.
- E. Exceptions: The following are exceptions within the Rights and Privacy Act which should be noted by students.
1. Access:
 - a. Students do not have access to the financial records of parents of students.
 - b. Students do not have access to letters of recommendation placed in the records prior to January 1, 1975.
 - c. The personal records of instructional, supervisory, and administrative personnel which are not accessible or revealed to any other person except a substitute are not open for review and inspection by students.
 - d. The professional records of the institution's medical staff are not open for review and inspection by students. However, these records can be personally reviewed by a physician or other appropriate professional of the student's choice.
 2. Release of Information: Certain information may be released without the prior written consent of the student and includes information to
 - a. School officials within the institution who are not specifically listed with standard access but who have been determined by the institution to have a legitimate educational need

- b. Authorized federal and state authorities including state educational agencies
 - c. Accrediting organizations who need information for their accrediting functions
 - d. Parents of a dependent student as defined by the Internal Revenue Code of 1954 after presentation of proper evidence of that dependency
 - e. Officials with a lawful judicial order or subpoena provided the institution notifies the student of the order or subpoena prior to the institution's compliance
 - f. Appropriate persons in connection with an emergency when the information is necessary to protect the health or safety of a student or other persons
 - g. Agencies, sponsoring agencies, and institutions in connection with a student's application for or receipt of financial aid
- F. Destruction of Records: The complete academic record of all matriculating students will become permanent records of the institution. Following the fourth continuous quarter of non-enrollment by a student, the nonacademic records will be placed in an inactive, but accessible status. Following the end of the ninth year of inactive status the nonacademic records will be purged and destroyed by the official responsible for their maintenance.
- G. Directory Information: Southern Tech publishes public student information in the form of directories, programs, etc. Students who desire that directory information not be released without consent should so notify the Office of the Registrar in writing. The following may be included as directory information unless notification is received to the contrary:
- Student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student
- Specific policies and procedures for the maintenance of student records according to the Board of Regents of the State of Georgia and the text of the Family Educational Rights and Privacy Act of 1974 are available for review in the Office of the Registrar.

IX. Transcript Request

Students desiring transcripts must direct their request, in writing, to the Office of the Registrar. A nominal fee is charged for processing and issuing transcripts. Official transcripts, bearing the Seal of the Institution and certifying signature, may not be issued to individuals, but will be mailed upon request to agencies or other institutions as confidential information. An individual student may receive an unofficial transcript for personal reference or interview purposes. All transcripts will include the entire academic record, and no partial or

incomplete record will be issued as a transcript. Though transcripts are normally issued promptly, requests should be made several days before the document is required, particularly at the beginning or end of a quarter. A transcript will not be issued when the record shows financial indebtedness to the institution.

X. Exceptions

Exceptions to these regulations may be made by the faculty whenever a consideration of the student's complete record indicates that the application of a specific regulation will result in injustice.





Student Life Regulations

I. Student Conduct Code

A student enrolling in the Southern Technical Institute assumes an obligation to conduct himself or herself in a manner compatible with the college's function as an educational institution.

Actions considered unacceptable to the institution and subject to discipline fall into the categories of academic and nonacademic misconduct.

A. Academic Misconduct: Academic misconduct is an act or acts on the part of or in behalf of any student, which does or could improperly distort students' grades or other student academic records. Students are prohibited from

1. possessing, using, or exchanging written or verbal information not authorized by the instructor in the preparation of an essay, laboratory report, examination, or other assignment included in an academic course
2. unauthorized collaboration with, or substitution for, a student in the commission of their academic requirements
3. submission of material which is wholly or substantially identical to that created or published by another person or persons, without adequate credit notation indicating the authorship (plagiarism)
4. false claims of credit for work which has not been submitted by the claimant
5. alteration or insertion of any academic grade or rating so as to obtain unearned academic credit
6. willful falsification of a written or verbal statement of fact to a member of the faculty so as to obtain unearned academic credit
7. forgery, alteration, or misuse of any college document relating to the academic status of the student

B. Nonacademic Misconduct: Nonacademic misconduct includes the following specifically prohibited acts whenever, unless otherwise stated, such acts occur on college-owned or controlled property or college-related premises:

1. Alcohol:
 - a. Conspicuous or flagrant possession of alcoholic beverages
 - b. Intoxication made manifest by boisterousness, rowdiness, obscene or indecent conduct or appearance, or vulgar, profane, lewd or unbecoming language
 - c. Disorderly conduct associated with the use of alcoholic beverages
 - d. Consumption or possession of alcoholic beverages at public events including all athletic events
2. Damage to Property: Malicious or unauthorized intentional damage or destruction of property belonging to the college, to a member of the college community, or to a visitor to the campus
3. Disorderly Conduct:
 - a. Breach of the peace or obstruction or disruption of teaching, research, administration, disciplinary procedures,

- or other college activities, including its public-service functions or other authorized activities
- b. Refusal to vacate a building, street, sidewalk, driveway, or other facility when directed to do so by any properly identified institute faculty, administration, or staff personnel while they are in the performance of their duties
 - c. Lewd, indecent, or obscene conduct or expression
 - d. Failure to comply with instructions or directions of any properly identified faculty, administrator, or staff personnel acting in the performance of their duties
 - e. The abuse or unauthorized use of sound amplification equipment indoors or outdoors (Use of sound amplification equipment must be approved in advance by the Dean of Students or his authorized representative.)
 - f. Physically abusing or threatening anyone on campus
 - g. Attempting to enter any event sponsored or supervised by the college, or college-recognized organization without proper credentials for admission, i.e., ticket, identification card, invitation, or other reasonable qualifications for admission
4. Drugs: Use, possession (without valid medical or dental prescriptions), manufacture, furnishing, sales, or any distribution of any narcotic or dangerous drug controlled by law (This provision is not intended to regulate alcoholic beverages, which are covered by section IB1.)
 5. Entry or Use of College Facilities:
 - a. Unauthorized entry into any college building, office, or other facility
 - b. Unauthorized use of any college telephone facility or of any other institute facilities
 - c. Possessing, using, making, or causing to be made any key or keys for any college facility without proper authorization
 - d. Unauthorized use of the password of another student or faculty member to gain access to the computer or computer output (This includes but is not limited to any knowing and willing use of fraudulent means to process computer programs and obtain access to computer files.)
 6. False Information and Record Falsification:
 - a. Furnishing false information to any college official or offering a false statement in any college disciplinary hearing
 - b. Forgery, alteration, or misuse of any college document, record, or identification
 7. Hazing: Any act which tends to occasion or allow physical or mental suffering in connection with rites or ceremonies of induction, initiating, or orientation into college life or into the life of any college group or organization
 8. Repeated violations of these or other published rules or regulations of the college, which cumulatively indicate an unwillingness or inability to conform to the standards of the college for student life

9. Safety:
 - a. Intentionally false reporting of a fire or that a bomb or other explosive has been placed in any college building or elsewhere on college property
 - b. Tampering with fire-fighting equipment, safety devices, or other emergency or safety equipment
 - c. Setting an unauthorized fire
 - d. Possession of unauthorized fireworks, firearms, ammunition, or dangerous weapons or materials (Fireworks are defined as any substance prepared for the purpose of producing visible or audible effect by combustion, explosion, or detonation.)
 - e. Unauthorized sale, possession, furnishing, or use of any incendiary device or bomb
 - f. Use of smoking tobacco, in any form, in facilities or areas posted with "No Smoking" signs, or where smoking has been prohibited by any faculty member or other official
10. Theft:
 - a. Theft of property
 - b. Unauthorized possession of institute property, personal property of members of the institute community, or that of visitors
11. Complicity (Joint Responsibility for Infractions): Knowingly acting in concert with any other person to perform an unlawful act or to violate a college regulation or policy
12. Residence: Violation of rules governing residence in college-owned or controlled property (dormitories, fraternities, organizations, etc.)
13. Gambling: Playing of cards or any other games of skill or chance for money or other items of value
14. Student Delinquencies – Financial, Records, Property: Failure to remit, return, or submit financial obligations, property, or records of the college, within the time prescribed by the institution
15. Law violations or violations of the Student Conduct Code occurring off campus or on property not controlled by the institute where the violative act creates a clear and present danger of material interference with the normal or orderly processes of the institute
16. Violations of the Student Motor Vehicle Regulations (Violations fall within the jurisdiction of the Southern Tech Police Department.)
17. Campus Disruption: Violation of the Regents' Statement on Disruptive Behavior, the full text of which is given in Section IIG, p. 155

II. Disciplinary Administration

A. Disciplinary Procedures:

1. All acts of misconduct (excepting violations of motor vehicle regulations) on the part of students shall be reported to the Dean of Students, who is designated the principal adminis-

- trator to enforce institute disciplinary measures pertaining to student academic and nonacademic misconduct.
2. The Dean of Students shall cause to be investigated alleged acts of student misconduct. The dean may appoint a staff member to conduct an inquiry into alleged misconduct acts, and the appointed member shall recommend to the Dean of Students what further action, if any, might be initiated. When additional action is indicated, the Dean of Students shall notify the accused student(s) in writing.
 3. When the Dean of Students gives written notification to a student for alleged academic or nonacademic misconduct, it shall contain a statement of the nature of the alleged or suspected misconduct and state the section(s) of the conduct code allegedly violated.
 4. The Dean of Students or his authorized representative will normally confer with the accused student, and at the conference the student may (1) admit or deny the alleged violation, (2) waive further hearing and appeal in writing and request that the Dean of Students take appropriate action, or (3) request a hearing as specified in Section 5 or 6 below.
 5. Cases of academic and nonacademic misconduct which may result in suspension or expulsion will normally be referred to the Judicial Committee, which shall hear them. (This does not preclude possible legal actions by appropriate law enforcement agencies in those cases of nonacademic misconduct in violation of federal, state, or local law.)
 6. If the case does not involve possible suspension or expulsion, the Dean of Students may make full disposition of the case except that he may, at the request of the accused or for good cause, refer any case of academic or nonacademic misconduct to the Judicial Committee.
 7. A student accused of an act of academic or nonacademic misconduct is encouraged to notify his or her parents or guardian of the charge(s). Parents or guardian will be granted a conference with the Dean of Students if they so request.
 8. An accused student may continue to attend classes and other school functions until the hearing is held and a decision is rendered. Exceptions to this will be made when a student's presence may create a clear and present danger of materially interfering with the normal operations of the school or the requirements of appropriate discipline. In such cases, the Dean of Students may impose temporary protective measures, including interim suspension, pending a hearing; such protective measure, if applied, will be without reasonably avoidable prejudice to the student.
- B. Student-Faculty Judicial Committee: The Judicial Committee shall consist of three members of the faculty, one of whom shall be elected by the committee as chairman, and three students duly elected by the Student Government Association. The three members of the faculty are appointed for two-year terms by the Dean/Executive Director. They may succeed themselves, but must be reappointed by the Dean.

C. Procedural Rights of Accused:

1. A student accused of misconduct and summoned to a hearing before the Judicial Committee shall have the right to
 - a. be accompanied by an advisor of his or her choice
 - b. remain silent with no inference of guilt drawn therefrom
 - c. question the complainant and all witnesses
 - d. present evidence in his or her behalf
 - e. call pertinent witnesses in his or her behalf
 - f. appeal

D. Hearing Procedures:

1. The chairman of the Judicial Committee shall set the date, time, and place of the hearing, shall notify the members of the hearing body, and shall summon all principals in the case (defendants and witnesses).
2. The chairman shall notify the accused student(s) in writing at least three days in advance of the scheduled hearing. The written notification should, if reasonably possible, be hand-delivered; if not reasonably possible, notification should be by registered mail. The written notification should specify
 - a. the date, time, and place of the hearing
 - b. a statement of the nature of the alleged or suspected misconduct of which he or she is accused with sufficient particularity to ensure opportunity to prepare for the hearing
 - c. names of witnesses scheduled to appear
3. Decisions of the Judicial Committee shall be by majority vote. A quorum for the Judicial Committee shall consist of four members (two faculty and two students).
4. Any member of the Judicial Committee shall disqualify himself or herself if his or her personal involvement in the hearing is of such a nature as to prejudice the case.
5. The hearings of the Judicial Committee shall ordinarily be closed except for the accused and his or her advisor and those directly involved; exceptions may be made at the discretion of the chairman. The Judicial Committee may exclude any person who may be reasonably expected to interfere materially with the hearing or who does interfere materially with the hearing. Judicial Committee deliberations are closed to all but committee members.
6. The Judicial Committee shall make a tape recording or summary transcription of the proceedings.
7. The Chairman of the Judicial Committee shall, within three working days, submit a written summary of the case along with the committee's recommended disciplinary actions to the Dean of Students, who will make a final decision and notify the accused in writing.

- E. Disciplinary Measures: For violations of institute rules and regulations or for acts of student misconduct, academic or nonacademic, the following disciplinary measures may be taken. (This list shall not be taken to be exhaustive and may be enlarged or modified to meet particular circumstances in any given case.)

1. Expulsion – permanent severance of the student's relationship with the institute
2. Disciplinary suspension – temporary severance of the student's relationship with the institute for a specific period of time, though not less than a quarter. A student expelled or suspended shall leave the campus and not visit the campus during the period of suspension or expulsion, except when on official school business. To violate this stipulation would affect adversely the student's chance for readmission.
3. Disciplinary probation – notice to the student that any further major disciplinary probation may result in suspension; disciplinary probation might also include either or both of the following: the setting of restriction, or the issuing of a reprimand. A student on disciplinary probation is not in good standing, and shall not be permitted to hold any elective or appointive office in extracurricular activities, or participate in any contest, performance, or activity to which the general public is invited.
4. Reprimand:
 - a. Oral reprimand – an oral disapproval issued to the student
 - b. Letter reprimand – a written statement of disapproval to the student
5. Restrictions – exclusion from enjoying or participating in
 - a. Social activities
 - b. Identification-card privileges
6. Fines
7. Restitution – reimbursement for damage to or misappropriation of property; this may take the form of appropriate service or other compensation.
8. Forced withdrawal – from the academic course within which the offense occurred without credit for the course
9. Change in grade – for the course in which the offense occurred

F. Appeal Procedures:

1. An accused or an accuser who is dissatisfied with the action taken by the Dean of Students may appeal the case in writing to the Executive Director/Dean of Southern Tech within five school days after the action about which there is a complaint. Such appeal shall recite all reasons for dissatisfaction with the previous decision. The Executive Director/Dean within five days shall refer the appeal to the Faculty Executive Committee. This committee shall review all facts and circumstances connected with the case and shall within five days make its findings and report thereon to the Executive Director/Dean. After consideration of the committee's report, the Executive Director/Dean shall within five days make a decision and notify the appellant in writing.
2. The accused or an accuser who is dissatisfied with the action taken by the Executive Director/Dean may appeal the case in writing to the President of Georgia Tech within five days after the action of the Executive Director/Dean. Such appeal shall recite all reasons for dissatisfaction with the previous decision.

The President, within five days from the receipt of the appeal, shall make a decision in the case which shall be final so far as the institute is concerned. The Board of Regents of the University System of Georgia is the final appellate authority for all cases involving students who have been *suspended* or *expelled*. Should the aggrieved person be dissatisfied with the decision of the President, he or she may apply to the Board of Regents, without prejudice to his or her position, for a review of the decision. The application for review shall be submitted in writing to the Executive Secretary of the Board within a period of twenty days following the decision of the President. This application for review shall state the decision complained of and the redress desired. A review by the Board is not a matter of right, but is within the sound discretion of the Board. If the application for review is granted, the Board, or a committee of the Board, shall investigate the matter thoroughly and render its decision thereon within sixty days from the filing date of application for review or from the date of any hearing which may be held thereon. The decision of the Board shall be final and binding for all purposes. (Minutes, 1962-63, pp. 244-245; 1967-68, pp. 750-751; 1973-74, pp. 176-177)

- G. Regents' Statement on Disruptive Behavior: The following is the policy of the Board of Regents regarding disruptive behavior in any institution of the University System. The rights, responsibilities, and prohibitions contained in this statement are incorporated as a part of these regulations.

"The Board of Regents of the University System of Georgia reaffirms its policies to support fully freedom of expression by each member of the academic community and to preserve and protect the rights and freedom of its faculty members and students to engage in debate, discussion, peaceful and non-disruptive protests, and dissent. The following statement relates specifically to the problem described below. It does not change or in any way infringe upon the Board's existing policies and practices in support of freedom of expression and action. Rather, it is considered necessary to combat the ultimate effect of irresponsible disruptive and obstructive actions by students and faculty which tend to destroy academic freedom and the institutional structures through which it operates.

"In recent years, a new and serious problem has appeared on many college and university campuses in the Nation. Some students, faculty members, and others have on occasion engaged in demonstrations, sit-ins, and other activities that have clearly and deliberately interfered with the regular and orderly operation of the institution concerned. Typically, these actions have been the physical occupation of a building or campus area for a protracted period of time or the use or display of verbal or written obscenities involving indecent or disorderly conduct.

"These actions have gone beyond all heretofore recognized bounds of meetings for discussion, persuasion, or even protest in that (1) acquiescence to demands of the demonstrators is the

condition for dispersal and (2) the reasonable and written directions of institutional officials disperse have been ignored. Such activities thus have become clearly recognized as an action of force, operating outside all established channels on the campus, including that of intellectual debate and persuasion which are at the very heart of education.

"The Board of Regents is deeply concerned by this problem. Under the Constitution of the State of Georgia, under all applicable court rulings, and in keeping with the tradition of higher education in the United States, the Board is ultimately responsible for the orderly operation of the several institutions of the University System and the preservation of academic freedom in these institutions. The Board cannot and will not divest itself of this responsibility.

"Of equal and even greater importance, such action of force as has been described above destroys the very essence of higher education. This essence is found in the unhampered freedom to study, investigate, write, speak, and debate on any aspect or issue of life. This freedom, which reaches its full flowering on college and university campuses, is an essential part of American democracy, comparable to the jury system or the electoral process.

"For these reasons and in order to respond directly and specifically to this new problem, the Board of Regents stipulates that any student, faculty member, administrator, or employee, acting individually or in concert with others, who clearly obstructs, disrupts, or attempts to disrupt any teaching, research, administrative, disciplinary, public-service activity, or any other activity authorized to be discharged or held on any campus of the University System of Georgia is considered by the Board to have committed an act of gross irresponsibility and shall be subject to disciplinary procedures, possibly resulting in dismissal or termination of employment.

"The Board reaffirms its belief that all segments of the academic community are under a strong obligation and have a mutual responsibility to protect the campus community from disorderly, disruptive, or obstructive actions which interfere with academic pursuits of teaching, learning, and other campus activities.

"The Board of Regents understands that this policy is consistent with resolutions adopted by the American Association of University Professors in April 1968, by the Association of American Colleges in January 1968, and by the Executive Committee of the Association for Higher Education in March 1968, condemning actions taken to disrupt the operations of institutions of higher education." (Minutes, 1968-69, pp. 166-169; Minutes 1970-71, p. 98)

III. Student Motor Vehicles

Students desiring to operate motor vehicles on campus are subject to all rules set forth by the campus motor-vehicle regulations.

IV. General Student Activities

A. Participation:

1. In order to be eligible for participation in extra-curricular activities, students must be enrolled for at least six quarter hours at Southern Technical Institute and must pay the Student Activity Fee. The act of dropping all courses during a quarter is considered "not being enrolled." Students who are on academic probation, disciplinary probation, or who drop below six quarter hours may not serve in elected or appointed offices in organizations. Each organization is responsible for enforcing its own standards for membership.
2. Co-op students will be allowed to participate in all extra-curricular activities if the student pays the Student Activity Fee for the quarter in which he or she is on the work quarter.
3. Requests for exceptions or waivers of these regulations should be made in writing to the Dean of Students.

B. Social Functions and Meetings: All student organizations making plans for meetings or social functions on campus must first reserve space for the activity with the staff member responsible for that particular area, i.e., Student Center Coordinator, Director of Athletics, Librarian, Department Heads for classrooms. After the space location has been reserved, the activity must be approved by the Dean of Students and scheduled on the official school calendar.

C. Student Organizations:

1. Any group of students desiring to form an organization on the campus of Southern Technical Institute must submit a written statement of the purposes of the proposed organization, six copies of the constitution, and a list of officers and members to the Student Government for its approval. If the Student Government approves these, it shall forward them to the Student Activities Committee, whose approval is also necessary. Faculty approval will be granted by the acceptance of the minutes of the Student Activities Committee. Subsequent revisions and amendments of the constitution must also be approved by the Student Government and the Student Activities Committee.
2. A copy of the constitution of each student organization is to be filed with the Office of the Dean of Students. Periodic reports as requested by the Office of the Dean of Students are to be supplied. Failure to fulfill such requests will be cause for inactivation of the organization concerned.
3. All student organizations are subject to the social regulations of Southern Technical Institute.
4. An annual review of each student organization will be made by the student government to determine its vitality and usefulness, its pursuit of its purposes, its observance of its constitution and the student rules and regulations, and its compliance with all other relevant school rules and regulations. The conclusions about each organization will be transmitted to the Student Activities Committee with a recommendation to

continue, to place on probation for one year, or to inactivate the organization.

D. Advisors: Each campus organization is encouraged to have an advisor. The following are required to have an advisor, and the advisor's name must be on file at the Office of the Dean of Students.

1. Each social sorority or fraternity
2. Each organization seeking to use Southern Technical Institute facilities on a continuing basis or for major events
3. Each activity receiving funds from the Student Activity Fee
4. Each professional or honorary society
5. Any organization exercising disciplinary authority

E. Fraternity Rules:

1. In order to be eligible for initiation, a person must be a bona fide student in good standing, carrying a schedule of at least 12 credit hours. An exception can be made for an evening-school student taking at least six hours with the approval of the Dean of Students.
2. A list of all new students who are to be initiated must be registered with the Office of the Dean of Students prior to the initiation.
3. The individual must meet all Southern Tech Inter-Fraternity Council requirements concerning initiation.
4. All fraternities are subject to the rules established by the Southern Tech Inter-Fraternity Council and in addition must meet all requirements of the Student Activities Committee.

F. Athletic Regulations:

1. In order to be eligible for intercollegiate athletic competition, a student must be a bona fide student in good standing, carrying a schedule of at least 12 credit hours, and making satisfactory progress toward a degree. (In addition he or she must meet any further requirements of the NAIA.)
2. No student may participate in more than two sports in intercollegiate competition in any school year except by permission of the Dean of Students and the Director of Athletics. Participating as a student manager or assistant manager is counted as participation within the meaning of this rule.

V. Students' Rights and Responsibilities

A. Student Responsibility: Southern Tech students bear a general responsibility to support the institution's effort to maintain a spirit of free inquiry and respect for the rights of others. This responsibility imposes a duty on students to refrain from conduct which is not consistent with the Southern Tech code, and also to support the enforcement of civil laws where such enforcement is reasonably deemed necessary by responsible officials to the safety and well being of the members of the college community as well as the continued operation of the institution.

B. Right to Freedom of Association: Students at Southern Tech are free to organize and join associations to promote their common interests. This organizing is done according to the rules consti-

tuted and set forth regarding establishing student organizations. The regulations are complete and very explicit and place cooperative responsibility for the established organization and the protection of the rights of all students.

- C. Right to Listen: Students or properly established organizations (note regulations for establishing student organizations) are allowed to invite and to hear any person of their choosing for the purpose of hearing his or her ideas and opinions.

If the Dean of Southern Tech, the President of Georgia Tech, the Board of Regents, or an authorized designee thereof, after proper inquiry, determines that the proposed speech constitutes a clear and present danger to the ordinary operation of the college, he can ban the speaker.

Regulations require clearing such invitations through the Office of the Dean of Students for the purpose of arranging for security through the Police Department, publicity through the Public Relations Office, notification of campus organizations, and information to the Dean of Southern Tech.

- D. Right to Freedom of Expression: Students at Southern Tech have the right to express their opinions freely as a part of the educational process of the college.

They must, however, respect the rights of others and allow them to be heard as they express their opinions. The students are expected to tell the truth and be mindful of the liability involved should what they express prove not to be fact. This freedom and right of expression is only a right as long as the expressions do not disrupt or interfere with the orderly operation of the campus.

- E. Should it become necessary to inspect or have access to private quarters, the procedures listed in the Dormitory Information Guidebook will be followed.





SOUTHERN
TECHNICAL
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A DIVISION OF GEORGIA TECH

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Directory for Correspondence

For additional information on the following topics, please address inquiries as follows:

Admissions	Director of Admissions
Alumni Affairs	Director of Development
Athletics and Intramurals	Director of Athletics and Intramurals
Career Counseling	Career Counselor
	<i>or</i>
	Director of Student Development
Continuing Education Programs	Coordinator of Continuing Education
Cooperative Education Program	Coordinator of Cooperative Education
Counseling Services	Director of Student Development
Credit by Examination	Director of Admissions
Evening School	Evening School Coordinator
Financial Aid	Director of Financial Aid
Fraternity Affairs	Director of Student Activities
Health Services	Dean of Students
Housing	Director of Housing
Placement	Director of Development
Public Relations	Director of Development
Registration	Registrar
Student Activities	Director of Student Activities
Student Records	Registrar
Testing Services	Director of Student Development
Transcripts	Registrar
Veterans Affairs	Coordinator of Veterans Affairs

SOUTHERN TECHNICAL INSTITUTE
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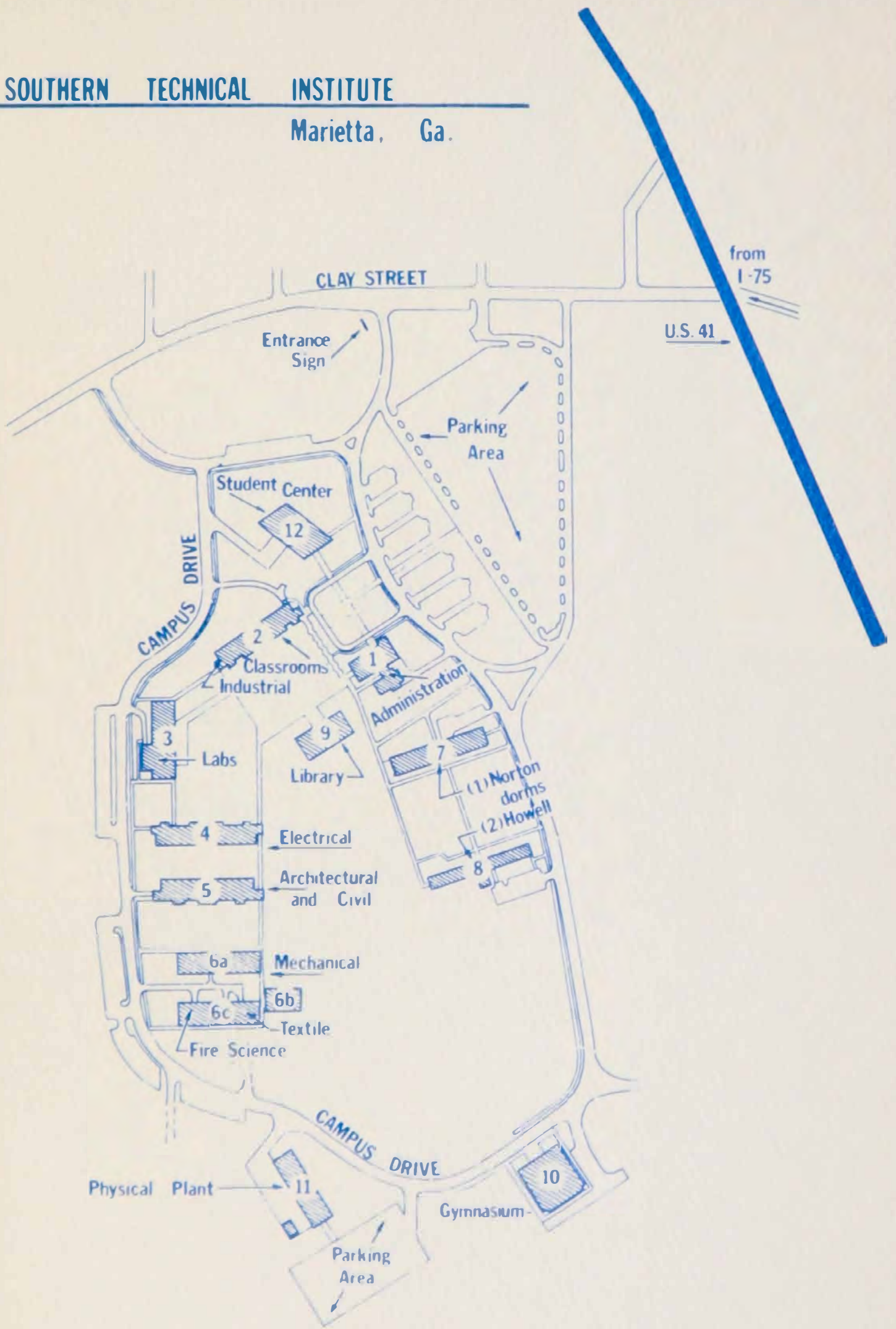
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