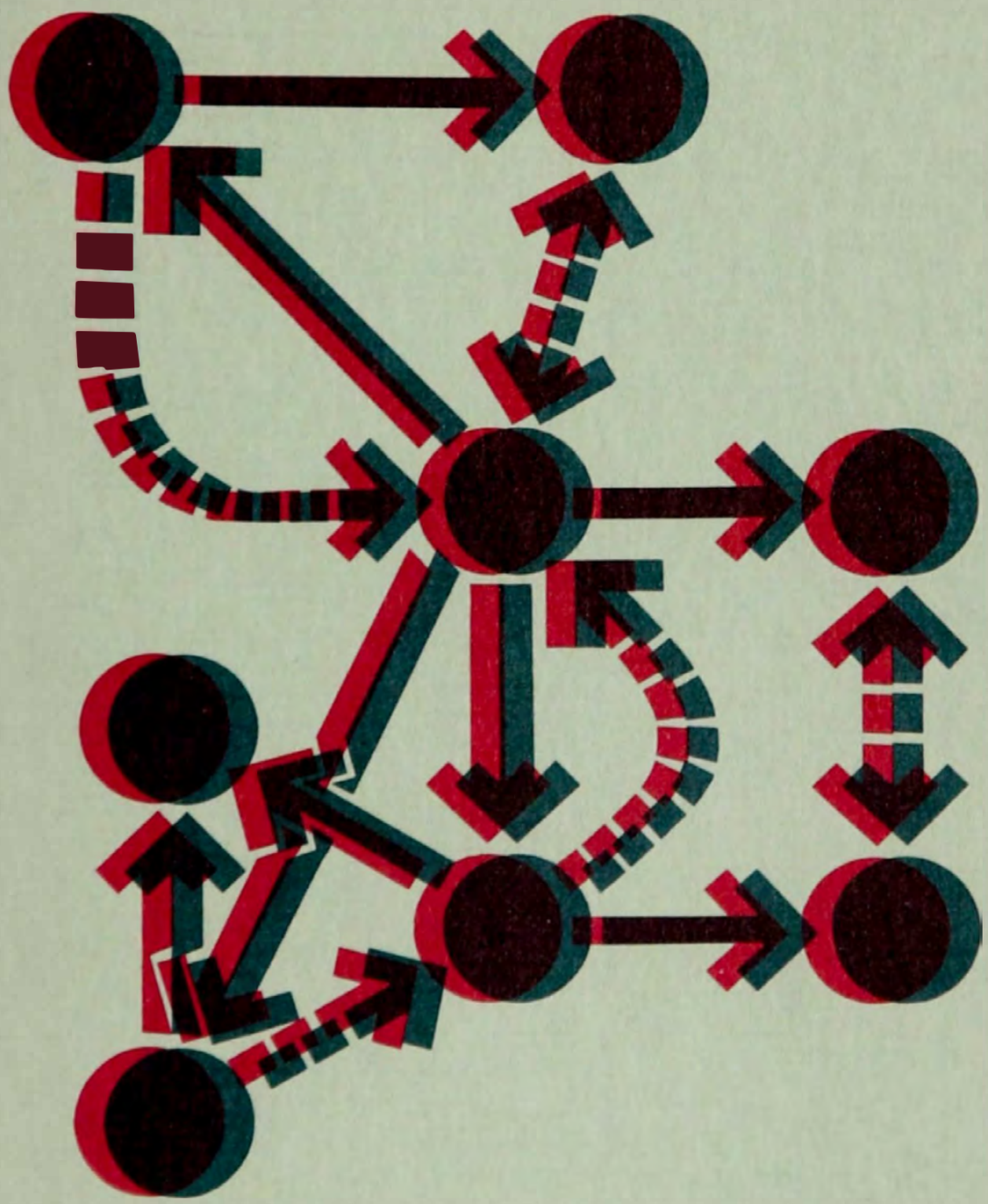

Southern Technical Institute
1977-78 General Catalog

Division of the Georgia Institute of Technology

College Directory

Academic Departments	
Apparel	424-7273
Architectural	424-7253
Civil	424-7262
Electrical	424-7246
English and Social Studies	424-7202
Fire Science	424-7371
Industrial	424-7243
Mathematics	424-7235
Mechanical	424-7274
Physics and Chemistry	424-7215
Textile	424-7273
Admissions and Registrar	424-7212
Business Office	424-7221
Continuing Education	424-7219
Dean of the College	424-7230
Evening School	424-7362
Financial Aid	424-7227
Information	424-7240
Library	424-7275
Placement and Co-op	424-7223
Student Center	424-7226
Veterans Affairs	424-1022

The statements set forth in this catalog are for informational purposes 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 and Director of Admissions.

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

Southern Technical Institute

534 Clay Street
Marietta, Georgia 30060
404–424-7240

CATALOG AND BULLETIN
Fall 1977 – Summer 1978

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

THE SOUTHERN TECHNICAL INSTITUTE is an accredited, coeducational, residential college offering Associate and Bachelor Degrees in several different fields.

Bachelor and Associate 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

Associate Degree programs are offered in:

FIRE SCIENCE TECHNOLOGY
TEXTILE MANAGEMENT TECHNOLOGY

Southern Tech is an accredited member of the Southern Association of Colleges and Schools.

The curricula leading to the Bachelor and Associate Degrees in Apparel, Architectural, Civil, Electrical,* Industrial,* Mechanical, and Textile Engineering Technology 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.

---

*The curricula leading to Associate Degrees in Industrial Engineering Technology – Management Option and Electrical Engineering Technology – Nuclear Safety Option are not ECPD accredited.

Visitors to the Campus

Southern Tech welcomes visitors to its campus 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 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.

Contents

University System of Georgia
Board of Regents

		Current Term
JESSE HILL, JR., Atlanta	State-at-Large	1973-1978
O. TORBITT IVEY, JR., Augusta	State-at-Large	1977-1984
LAMAR R. PLUNKETT, Bowdon	State-at-Large	1974-1981
MILTON JONES, Columbus	State-at-Large	1974-1981
RUFUS B. COODY, Vienna	State-at-Large	1976-1983
ERWIN A. FRIEDMAN, Savannah	First District	1976-1983
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
DAVID H. TISINGER, Carrollton	Sixth District	1971-1978
JAMES D. MADDOX, Rome	Seventh District	1973-1980
CHARLES A. HARRIS, Ocilla	Eighth District	1971-1978
P. R. SMITH, Winder	Ninth District	1973-1980
CAREY WILLIAMS, Greensboro	Tenth District	1972-1979

OFFICERS AND STAFF

CHARLES T. OXFORD, *Chairman*
MILTON JONES, *Vice Chairman*
GEORGE L. SIMPSON, JR., *Chancellor*
JOHN W. HOOPER, *Vice Chancellor*
HENRY G. NEAL, *Executive Secretary*
SHEALY E. McCOY, *Vice Chancellor-Fiscal Affairs and Treasurer*
W. COYE WILLIAMS, *Vice Chancellor-Academic Development*
FRANK C. DUNHAM, *Vice Chancellor-Construction and Physical Plant*
MARIO J. GOGLIA, *Vice Chancellor-Research*
HOWARD JORDAN, JR., *Vice Chancellor-Services*
HARRY B. O'REAR, *Vice Chancellor-Health Affairs*
HASKIN R. POUNDS, *Assistant Vice Chancellor*
JAMES L. CARMON, *Assistant Vice Chancellor-Computing Systems*
MARY ANN HICKMAN, *Assistant Vice Chancellor-Personnel*
ROBERT M. JOINER, *Assistant Vice Chancellor-Communications*
L. HARLAN DAVIS, *Director of Interinstitutional Programs in International Affairs*

Georgia Institute of Technology
Administration

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

Southern Technical Institute
Administration

WALTER O. CARLSON, Ph.D. (University of Minnesota), *Executive Director/Dean*
HOYT L. McCLURE, M.S. (Georgia Institute of Technology), *Associate Executive Director*
CHARLES A. STEVENS, Ph.D. (Worcester Polytechnic Institute), *Associate Dean-Academic*
SAMUEL J. BAKER, M.S. (University of Tennessee), *Director of Admissions and Registrar*
JOHN W. PATTILLO, M.Ln. (Emory University), *Director of Library*
PAUL V. SMITH, M.Ed. (University of North Carolina), *Placement Director; Coordinator of Cooperative Programs*
JAMES N. ROBBINS, M.Ed. (Georgia Southwestern College), *Associate Director of Admissions*
MARK C. SPENCER, M.A. (West Georgia College), *Associate Registrar*
EMERELLE M. GLOVER, M.S. (Atlanta University), *Director of Financial Aid*
DAVID G. DUTY, M.A. (Ohio State University), *Director of Student Center*
DAN B. CONNER, B.B.A. (University of Georiga), *Accountant*
ROBERT A. AZAR, A.B. (Georgia State University), *Executive Secretary to Southern Technical Institute National Alumni Association/Director of Public Relations*
LEWIS G. VAN GORDER, M.A. (George Washington University), *Evening School Coordinator*

Tentative Academic Calendar 1977-1978**

Fall Quarter 1977

Sept. 19	(M)	New Students Report
Sept. 20	(T)	Registration
Sept. 21	(W)	Classes Begin
Sept. 23	(F)	Last day to drop/add/audit
Oct. 21	(F)	Last day to withdraw without penalty
*Nov. 24-27		Thanksgiving Holidays
Dec. 2-7		Exams
Dec. 7	(W)	End of term
*Dec. 8–Jan. 2		Christmas Holidays

Winter Quarter 1978

Jan. 3	(T)	Registration
Jan. 4	(W)	Classes Begin
Jan. 6	(F)	Last day to drop/add/audit
Feb. 6	(M)	Last day to withdraw without penalty
Mar. 15-17		Exams
Mar. 17	(F)	End of term

Spring Quarter 1978

Mar. 27	(M)	Registration
Mar. 28	(T)	Classes Begin
Mar. 30	(Th)	Last day to drop/add/audit
Apr. 28	(F)	Last day to withdraw without penalty
June 6-9		Exams
June 9	(F)	End of term
June 10	(S)	Graduation

Summer Quarter 1978

June 19	(M)	Registration
June 20	(T)	Classes Begin
June 22	(Th)	Last day to drop/add/audit
*July 4	(T)	Independence Day Holiday
July 21	(F)	Last day to withdraw without penalty
Aug. 30-Sept. 1		Exams
Sept. 1	(F)	End of term

Fall Quarter 1978

Sept. 18	(M)	New Students Report
Sept. 19	(T)	Registration
Sept. 20	(W)	Classes Begin
Sept. 22	(F)	Last day to drop/add/audit
Oct. 20	(F)	Last day to withdraw without penalty
Nov. 7	(T)	Election Day
*Nov. 23-26		Thanksgiving Holidays
Dec. 4-7		Exams
Dec. 7	(Th)	End of term

---

*Official School Holidays

**This tentative calendar 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

Southern Technical Institute is an operationally separate unit of the Georgia Institute of Technology and is therefore a part of the University System of Georgia. Its coeducational, residential campus serves both day and evening students.

The purposes of Southern Technical Institute are to provide capable technicians and technologists for industry through technical and technically related educational programs which will prepare the students for career opportunities, to become better citizens in their communities, and to lead fuller and more enjoyable lives.

Southern Tech accomplishes these basic purposes by offering the following programs:

(1) Two-year associate and four-year bachelor's degrees in engineering technology and related technologies.
(2) A two-year Associate in Fire Science Technology degree program.
(3) Short courses in vocationally oriented industrial training programs conducted in industry throughout the State of Georgia.
(4) Intensive short courses conducted on campus to accomplish specific educational and training goals.
(5) Culturally enriching adult-education courses to assist the citizens of the community in a better understanding of the technological world in which they live.
(6) Planned activities to provide an environment for the physical development and well-being of its students.

To make these educational experiences as convenient to the state population as possible, courses are conducted on campus day and evening, through cooperative programs with other colleges and post-secondary schools, and, in a work and study cooperative education program.

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 leaving a void in the spectrum of technical education in Georgia. Accordingly, in 1946 they 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 the Spring quarter 1948 as a division of Georgia Tech, in rented facilities.

Important milestones in Southern Tech's 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 in the years since 1948 has seen the enrollment rise from 116 to over 2100, the faculty enlarge from 10 to 100, the number of laboratories increase from 3 to 40, and number of curricula offered (including the options) grow from 7 to 11. 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 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, and a library have been added, and a new Student Center opened in the spring of 1977. 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 Requirements

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 all 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 Office of Admissions at least twenty (20) days prior to the date of the beginning of the quarter in which they plan to enroll.

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 Office of Admissions no later than 20 days prior to the date of the beginning of the quarter in which they plan to enroll.

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

Special Studies

Applicants to Southern Tech 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.

Courses considered Special Studies level may not be applied to any degree program. These courses and their entrance requirements are:

English 099 – 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.

Math 096 – Geometry

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

Math 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.

Physics 099 – Basic Concepts for the Physical Sciences

Required of all freshman applicants who have less than two units of high-school science or who score less than 350 on the SAT verbal section or 440 on the SAT math section.

Read 099 – Reading Improvement

Required of all freshman applicants who score less than 350 on the SAT verbal 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 grade point average including special studies work) will be academically dismissed unless continued enrollment is granted by the Faculty upon the recommendation of the Special Studies Department Head.

Admission Procedure

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

(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; and
(d) an STI Medical Form.

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 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 satisfactory official SAT scores, the Admissions Office will notify the applicant of his admission status.

Students considering Southern Tech are strongly advised to take the SAT test 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 must have completed his junior year in high school, must have all required units in high school as prescribed by this catalog, must have taken the SAT test, must be a better-than-average student academically, and must receive the recommendation of his counselor or principal.

Advanced Placement

College Level Examination

Superior students entering Southern Tech may receive college credit for certain courses based on scores on the College Level Examination Program.

The criteria for credit awarded under the College Level Examination Program are as follows:

CLEP Exam	*Minimum Score Required*	*Southern Tech Courses for which credit given*
General Exam – English Composition	500	English 111-3
General Exam – English Composition	600	English 111-3 and English 112-3
American History	50	History 251-5 or History 252-5
Western Civilization	50	History 114-5 or History 115-5
English Literature	50	English 212-5
College Algebra	50	Math 111-5
General Chemistry	50	Chem 201-5
General Psychology	50	Psych 112-5
Introductory Micro/Macro Economics	50	Econ 220-5
Trigonometry	50	Math 112-5
Introductory Calculus	50	Math 114-5

Scholastic Aptitude Test – CEEB

Students entering Southern Tech whose score on the College Board SAT Math test 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 to STI only on probation.
(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 STI Medical Form; and
(d) 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's core courses.

Area I – Humanities – 20 Hours Required

Courses	*Hours*	*Courses*	*Hours*
Eng 200	3	Eng 211 or 212	5
Eng 111	3	Eng 221	3
Eng 112	3	Eng 231	3

Area II – Mathematics and Natural Sciences – 20 Hours Required

Courses	*Hours*	*Courses*	*Hours*
Mathematics		*Sciences*	
Math 111	5	Phys 201	5
Math 112	5	Phys 202	5

Area III – Social Sciences – 20 Hours Required

Courses	*Hours*	*Courses*	*Hours*
Hist 251 or 252	5	Econ 220	5
Hist 114 or 115	5	Psych	5

Area IV – Bachelor of Engineering Technology – 30 Hours Required
(For the specific Engineering Technology program it is recommended that

the courses listed below be completed; however, this does not preclude the transfer of other approved courses.)

Apparel

Courses	*Hours*
Chem 201	5
Draw 111	2
Math 114	5
Math 200	5
Math 215	3
Phys 203	5
Choice of the following:	5
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Architectural

Courses	*Hours*
Chem 201	5
Draw 111	2
Math 114	5
Math 200	5
Math 215	3
Choice of the following:	10
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Civil

Courses	*Hours*
Chem 201	5
Draw 111	2
Math 114	5
Math 200	5
Math 215	3
Phys 203	5
Choice of the following:	5
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Electrical

Courses	*Hours*
Chem 201	5
Draw 111	2
Math 114	5
Math 200	5
Phys 203	5
Choice of the following:	8
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Industrial

Courses	*Hours*
Draw 111	2
Math 114	5
Math 200	5
Math 215	3
Phys 203	5
Choice of the following:	10
Biol 201	
Chem 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 345	

Mechanical

Courses	*Hours*
Chem 201	5
Draw 111	2
MET 117	2
Math 114	5
Math 200	5
Math 215	3
Phys 203	5
Choice of the following:	3
Biol 201	
Geol 201	
IMT 310	
IMT 316	
IMT 341	
IMT 342	
IMT 345	

Textile

Courses	*Hours*
Chem 201	5
Draw 111	2
Math 114	5
Math 200	5
Math 215	3
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 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 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 more than two quarters.

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

Although not required by the Admissions Office, a transient applicant should obtain a copy of his previous college work for the use of his 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 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) Certification of demonstrated proficiency in the English language (TOEFL) – Test of English as a Foreign Language); and
(f) an affidavit indicating financial security.

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

All international students will be required to satisfactorily complete ENG 099. 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.

Readmission

A student who for any reason has remained out of school one full calendar year must apply for readmission. This 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 enroll.

Other Requirements of Admission

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 course of study for which the applicant wishes to enroll and to reject any applicant who fails to meet such tests satisfactorily.

General Information

Tuition and Fees

	Matriculation	*Tuition*	*Student Athletic and Activity*	*Medical*	*Quarter Total*	*Annual Total*
Resident of Georgia	$145.00	None	$21.00	$3.50	$169.50	$ 508.50
Nonresident of Georgia	$145.00	$238.00	$21.00	$3.50	$407.50	$1222.50

Resident students taking fewer than 12 quarter hours of work pay $12.00 per quarter hour, and nonresidents pay $32.00 per quarter hour. These part-time students are not charged medical and student-activity fees if taking 1 through 5 hours. Those taking 6 through 11 hours must pay both athletic/activity and medical fees.

Estimated Summary of Expenses

	Resident	*Nonresident*
Matriculation, tuition, other fees	$508.50	$1222.50
Room	495.00	495.00
Board, five days per week	1260.00	1260.00
Books and supplies ($80.00 a quarter)	240.00	240.00
Electronic calculator and drawing instruments	125.00	125.00
Dormitory deposit (refundable)	25.00	25.00
Total	$2653.50	$3367.50

These estimates are based on an academic year of three quarters in attendance with as many as 12 hours of scholastic work. The rates for fees and room are subject to change at the end of any quarter.

The college is not permitted to extend to parents and students the privilege of deferred payments of expenses. Therefore, the cost of fees, tuition, room rent, books and supplies, etc., is due on the day the student registers. All checks should be made payable to the Southern Technical Institute.

Dormitory Deposit

A $25.00 dormitory deposit must be made by all single students desiring to live in an STI dormitory. To ensure a reservation in a Southern Tech residence hall, the single student must send the deposit, along with an official application (room reservation card), to the Southern Technical Institute as soon as he is accepted for admission. No action can be taken on an application for a room unless the $25.00 deposit accompanies the application (reservation card).

The dormitory deposit is refundable upon written request at the end of the school year or at the time when the student may withdraw from school, provided he was officially enrolled in Southern Tech, turns in his room key, and has not been responsible for damage to his living facilities.

If the student reserves living accommodations, makes the $25.00 dormitory deposit, and does not enroll, the deposit is refundable, provided he cancels his application for a room in writing at least 20 days before the official registration date of the quarter he was scheduled to enter.

The check for this $25.00 deposit should be made payable to the Southern Technical Institute, and it should state specifically that it is for dormitory deposit.

Late Registration

A late registration fee of $5.00 for the first day, $10.00 for the second day, $15.00 for the third day, the total amount not to exceed $15.00, 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 three days of that quarter.

Other Fees

Each member of the graduating class must pay a graduation fee of $12.00 before graduating.

Every student who parks his automobile on the campus is required to pay a parking fee of $6.00 per year. 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

No portion of the student-activity fee or the medical fee is refundable. Refund of tuition, room rent, 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.

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

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

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

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

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

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 the institution without the written consent of the student. Exceptions to this as authorized by the Act are noted in these regulations.

For the purpose of these regulations, student records will be considered under the categories Academic or Non-Academic. The following indicates the types of records maintained; the official responsible for their maintenance; and the person(s) with access to those records.

Academic. Those educational records maintained which specifically pertain to and/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 (all records not maintained by each office).
      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; Administrative, Academic and Student Personnel Deans.
   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.

Non-Academic. Those educational records maintained which do not pertain to the student's academic program or academic standing.

1. Business Office
   A. Maintenance—College Accountant.
   B. Access—Accountant and staff; Administrative, Academic and Student Personnel Deans; Director of Admissions and Registrar.
   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. Dean of Students Office
   A. Maintenance—Dean of Students.
   B. Access—Dean of Students and staff; Administrative and Academic Deans.
   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. Record of awards of financial assistance to students.
      3. Record of student indebtedness to the institution regarding financial assistance.
      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; Administrative and Academic Deans.
   C. Record Types.
      1. Official police reports.

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.

Challenges. Should the student believe that the record contains inaccurate, misleading, or otherwise inappropriate information, he 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 their 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 also will be transmitted to the Dean of the College.

Exceptions. The following are exceptions within the Rights and Privacy Act which should be noted by students.

A. Access.
   1. Students do not have access to the financial records of parents of students.
   2. Students do not have access to letters of recommendation placed in the records prior to January 1, 1975.
   3. 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.
   4. 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.

B. Release of Information. Certain information may be released without the prior written consent of the student and includes information to:
   1. School officials within the institution and not specifically listed with standard access, but who have been determined by the institution to have a legitimate educational need.
   2. Authorized federal and state authorities including state educational agencies.
   3. Accrediting organizations in order to carry out their accrediting functions.
   4. Parents of dependent student as defined by the Internal Revenue Code of 1954 after presentation of proper evidence of that dependency.
   5. Comply with a lawful judicial order or subpoena provided the institution notifies the student of the order or subpoena prior to the institution's compliance.
   6. Appropriate persons in connection with an emergency when the information is necessary to protect the health or safety of a student or other persons.
   7. Agencies and institutions in connection with a student's application for or receipt of financial aid including sponsoring agencies.

Destruction of Records. The complete academic record of all matriculating students will become permanent records of the institution. Following the fourth continuous quarter of nonenrollment 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.

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.

Veterans Programs

The veteran planning to further his 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 should complete the Veterans Application for Program of Education or Training (VA Form 22-1990) and submit said form to the Southern Tech Office of Veterans Affairs. At this 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.

Boarding Facilities

Southern Tech has two modern air-conditioned dormitories that provide space for approximately 475 students, two to a room. The cost is $165 per quarter; and if space is available, rooms can be secured for single occupancy at $215 per quarter.

Snack-bar service is available in the Student Center. No meals are served on Saturdays, Sundays, or the official holidays listed in the catalog.

STI 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.

Five 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, Industrial Engineering Technology, and Mechanical Engineering Technology. The estimated completion time for one of these courses 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 each quarter's subject offerings is available upon request about three weeks prior to the quarter in which the student is interested. A copy may be obtained from the Registrar or 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 group offers training upon request either in the plant or at some nearby convenient facility. A number of courses that represent known needs of Georgia industry are available and special courses to meet unique industrial needs are developed when requested. The following are examples of subjects or services that are available to industry – conference leading, industrial education psychology, course planning, teaching methods, industrial plants surveys, occupational analysis. As can be seen from the above, a substantial proportion of the effort is in training industrial supervisors how to instruct their employees.

Continuing Education

Southern Tech in cooperation with the Continuing Education Department at Georgia Tech conducts educational programs annually designed to help professionals in technology 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 best 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.

ROTC

Army

The purpose of the U.S. Army's Reserve Officers Training Corps (ROTC) is to provide a means by which qualified college men and women may earn a commission in either the regular or reserve components of the

United States Army. The normal program is based on a four-year curriculum, a two-year basic course and a two-year advanced course. The basic course may be replaced by one of several options, primarily by either receiving constructive credit for prior military service or by attending a six-week basic summer camp. Advance course cadets enter into a contract with the Army and begin drawing $100 a month subsistence allowance. Commissioning is contingent upon receipt of the baccalaureate degree and successful completion of the ROTC program.

Air Force

The purpose of the Southern Tech Air Force Reserve Officers Training Corps program is to commission through a college-campus program second lieutenants in response to Air Force requirements. Both four-year and two-year programs are available to male and female students. Students interested in Air Force ROTC attend classes at Georgia Tech campus in Lyman Hall.

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 activity duty schooling in the summer prior to their junior year and then pursue the normal 3rd and 4th year curriculum. For more information please contact the NROTC Unit at Georgia Tech, phone 894-4771.

Student Services

Orientation

In order to aid new students in a successful beginning of their work, an orientation meeting is held during the first week of each quarter. The first two days of the fall quarter are devoted to registration and orientation for beginning and transfer students.

At the orientation meeting college officials explain rules and regulations and other information that new students should know. Students who require more than routine orientation may go to the Counselor's Office for guidance and counseling on general problems and to the Department Head's office for academic counseling.

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 May 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 needs; (2) be eligible for enrollment at STI; and (3) be capable of maintaining good academic standing.

Scholarship

Southern Technical Institute can given 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 Office of Financial Aid.

Regents' State Scholarship: 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 purely 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 (2) 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 other than youth related, the applicant must repay amount awarded at 5% interest.

Basic Educational Opportunity Grant (BEOG)

Southern Tech participates in this federally sponsored program which provides a gift grant ranging up to $1400 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.

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 are available and carry a nominal interest charge, and the payment date may extend beyond graduation. Applications for loans are made to The Office of Financial Aid, 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 1st and March 31st. 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 and the Smyrna Lions Club have established an Emergency Loan Fund for students attending Southern Technical Institute. Only small temporary loans (30 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 by 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.

Counseling Services

A primary goal of counseling is to help the student explore, in confidence, existing problems, possible decisions and future plans that are important to his 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 Counseling Office as a starting referral point to find the correct source of information for his 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. Adjustment to the academic environment and study skills assistance is offered to students who may be experiencing academic difficulty. In cooperation with the Director of Special Studies, 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, quarterly credit hour loads, and course deficiencies.

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

Social-Personal Counseling: Academic problems are often related or aggravated by personal concerns facing the individual. A lack of self-confidence, inadequate interpersonal skills or, "just having one of those days where nothing seems to go right," are some of the areas that the Counseling Office may help overcome. A referral service is also available through the Counseling Office for students with more intense personal concerns.

Testing: The Counseling Office has a variety of tests designed to assist the student in evaluating his academic, study skills, career, personality and life goals in relation to his objectives. In addition, the Institutional Scholastic Aptitude Test as well as other standardized tests are administered to interested students through the Counseling Office.

Resource Materials: Occupational and career planning materials and special information concerning other college programs and study skills information are some of the materials available to students through the Counseling Office.

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 Southern Technical Institute Office of Financial Aid.

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 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 academic

achievement. In addition, Co-op helps students in their career decision-making process and provides substantial support for educational expenses.

Normally, students wishing to utilize 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 grade point average (most industries require higher point averages) while in the Co-op program and be willing to participate in no less than 4 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 and/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 developed; or industry initiated. The College Co-op Director arranges employer interviews for interested students after they have made an application to the Co-op program. The employer has the final selection decision regarding Co-op employment and students must meet any additional company Co-op requirements. Upon selection to an employer Co-op program, the student is normally expected to remain with that company for a minimum of 4 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 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 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 to visit students on the job to evaluate work assignments and student progress as well as develop new Co-op opportunities. After completion of each work quarter the student will be evaluated by both a company and 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 their academic record. Students interested in the Co-op program should contact the Placement/Co-op Office upon completion of their first quarter at the institution.

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: assistance in resume preparation and printing, career advising, interview skills preparation; job search advisement and others. In addition, the Placement Office maintains a library of employer and occupational information as well as a part-time job opportunities reference file.

Students are encouraged to make use of the Placement Office as early as possible during their stay at Southern Tech to ensure productive career decision-making. 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.

The Post Office

A United States Post Office branch located in the Student Center provides mail service for the campus. All students are assigned post office boxes and are expected to check them regularly for official communications from the college in addition to other mail they may receive.

The Book Store

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 8:00 AM to 6:30 PM Monday through Thursday, and on Friday from 8:00 AM to 4:30 PM.

The first week of each quarter the Bookstore is open from 8:00 AM to 8 PM to accommodate evening-school students.

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 is studying as well as to explore his 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 may select desired materials after examining them at his 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.

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 of 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.

Extracurricular Activities

Not all of a student's time at Southern Tech is spent in scholastic pursuits in the classroom or laboratories or in doing homework. In fact, officials of the Southern Technical Institute strongly believe in the benefits of extracurricular activities and urge every student to participate in them. These student activities are most helpful in developing good health, social graces, well-rounded personalities, and dependable leadership. They offer the student wholesome diversion from classroom and laboratory, and give him opportunities for creative self-expression. Participatory activities build college spirit and keep it buoyant while serving to unify administration, instructors, and students into one enthusiastic, loyal group. The Southern Technical Institute sponsors an athletic program, a college paper, a yearbook, social events, and worthwhile student organizations.

Publications

Students who are interested in publications may join the staffs of the student newspaper and the yearbook. The weekly newspaper, and the *Technician's 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 interests into activities outside their courses of study.

Athletics

The Intercollegiate Athletic Program encompasses three sports – basketball, baseball and cross country.

Intercollegiate competition is conducted in the Georgia Intercollegiate Athletic Conference 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). All sports have a goal to win NAIA District 25 Championship and compete in the National Tournament in Kansas City, Missouri.

Intramural Sports

Composed of team, dual and individual competition, intramurals on campus are organized into leagues representing students, staff, and faculty. Tournaments are conducted to determine top teams in each of a variety of activities with trophies awarded to winners and runners-up. Sports in the intramural program range from flag football and softball for the men to powder puff football, volleyball and softball for the women.

Campus Organizations

Several different campus organizations exist at Southern Tech for the purpose of providing fellowship and fun, information, and opportunities for training in leadership and in social and personal development. Each student has his departmental club which provides opportunities for participation in creative projects, intramural sports, and such social functions as barbecues, picnics, and dances. Visiting speakers, many of

whom are specialists in their fields, talk to the club members about their fields of interest.

In addition, a student may become a member of several progressive, campus-wide organizations, depending upon his interests and qualifications: social fraternities, the Camera Club, the International Club, the Society for the Advancement of Management (*SAM*), the Fellowship of Christian Athletes, the Lions Club, the Baptist Student Union, the Society of Manufacturing Engineers (*SME*), Tech Auto Club, the Veteran's Club, American Society of Civil Engineers, American Institute of Industrial Engineers, American Institute of Architects, American Society of Mechanical Engineers, Black Student Association, and *IEEE*.

Southern Tech also has a number of fraternities for students. For those students desiring a national fraternity, STI has Tau Kappa Epsilon, Sigma Pi, Sigma Nu, and Lambda Chi Alpha. All of these fraternities offer the college personal relationships that many students desire and enjoy. The presidents of the fraternities have formed an Interfraternity Council that meets regularly to discuss problems and to keep each other informed about fraternity activities.

Superior scholastic achievement is recognized by membership in the Tau Alpha Pi National Honor Society, the original chapter of which was founded on the Southern Tech campus. A student may be elected to the Student Government Association by his fellow students from his class, department, or the campus-at-large; or the student may decide to run for the position of Student Body President or Vice President. As a member of the Student Government, he may take part in conducting student elections and referenda, supervising student activities, chartering student organizations, and calling student-body meetings. He may also participate on Institute Committees set up by the Dean. Students who are elected presidents of their fraternities or clubs become members of the Presidents' Club, a prestige club that takes part in all important affairs on the Southern Tech campus.

A campus radio station, WSTB, is operated by the Radio Communications Board.

Courses of Study*

The Southern Technical Institute offers courses 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 (Management Option)
Mechanical Engineering Technology
Textile Engineering Technology
Textile Management Technology

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

Every STI curriculum, furthermore, makes certain that the student studies subject material in four distinct though related areas:

(a) the communication skills of engineering drawing, speaking, writing, interpreting and transmitting technical data and reports, and 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 course of study is outlined and all subjects are described briefly.

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

---

*Students on the Co-operative Plan 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.

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.

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

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.

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 Electrical Engineering Technology options are identical, a student may choose either option at the beginning of his second year of study.

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.

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 field of electronics and nuclear safety.

A foundation is given in electronics, radioisotopes, nuclear instrumentation, and health physics (safety practices).

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.

Theory is balanced with practical experimental procedures and techniques taught in the laboratories at Southern Technical Institute and at the Georgia Institute of Technology's Nuclear Reactors.

The option requires the student to be proficient in electronics and also knowledgeable in radiation physics, principles of health physics, and applied health physics.

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 with a comprehensive background in fire prevention and extinguishment techniques and so equips him for entry positions in the fire services and in related fire-protection agencies and organizations.

INDUSTRIAL ENGINEERING TECHNOLOGY

The field of Industrial Engineering Technology offers you 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 you to solve such a wide variety of management problems, your curriculum of study will be broad and interesting.

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, you may enter the four-year IET program without loss of credit.

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.

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.

TEXTILE MANAGEMENT TECHNOLOGY

The Textile Management Technology 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.

APPAREL ENGINEERING TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AMET	261	Survey of Textile Processes	3-0-3	.....	.....
AMET	262	Employee Selection & Training	.....	3-0-3	.....
AMET	363	Pattern Analysis & Drafting	.....	.....	2-6-4
Draw	111	Engineering Drawing I	0-6-2	.....	.....
Engl	111	Composition and Rhetoric	3-0-3	.....	.....
Engl	112	Composition and Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	3-0-3	.....
Hist	251 *or*				
	252	U.S. History	.....	.....	5-0-5
IMT	316	Principles of Management	3-0-3	.....	.....
IET	322	Motion and Time Study	.....	.....	4-2-5
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geometry & Calculus	.....	.....	5-0-5
Phys	201	Mechanics	.....	4-2-5	.....
		Totals	14-6-16	18-2-19	16-8-19

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AMET	364	Machine Evaluation & Selection	4-3-5	.....	.....
AMET	368	Pressing and Finishing	.....	.....	2-3-3
AMET	465	Synthetic Work Measurement	.....	5-0-5	.....
AMET	466	Cutting-Room Analysis & Costing	.....	3-6-5	.....
AMET	467	Apparel Production Planning	.....	.....	4-3-5
Engl	231	Technical Writing	3-0-3	.....	.....
IET	227	Statistics I	5-0-5	.....	.....
IMT	310	Accounting & Cost Accounting	.....	.....	4-2-5
IET	339	Statistical Quality Control	.....	3-0-3	.....
Math	215	Computer Programming	.....	.....	3-0-3
Phys	202	Electricity and Magnetism	4-2-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	.....	4-2-5	.....
TET	444	Testing & Quality Control	.....	.....	3-3-4
		Totals	16-5-18	15-8-18	16-11-20

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

APPAREL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AMET	355	Fibers, Fabrics, and Finishes	.....	.....	5-0-5
Chem	201	General Chemistry	4-2-5	.....	.....
Econ	220	Economics	5-0-5	.....	.....
Engl	200	Language and Logic	.....	3-0-3	.....
Engl	211 *or*				
	212	Man and Literature (I or II)	.....	.....	5-0-5
IET	326	Wage and Salary Admin.	3-0-3	.....	.....
IET	340	Plant Layout & Materials Handling	.....	2-4-4	.....
IET	341	Finance	3-0-3	.....	.....
IET	350	Industrial Safety	.....	2-2-3	.....
Psych	112	Psychology	.....	.....	5-0-5
		Free Electives	.....	3	.....
		Technical Electives	.....	3	.....
		Totals	15-2-16	16	15-0-15

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AMET	455	Material Utilization	.....	.....	5-0-5
Hist	114 *or*				
	115	Western Civilization (I or II)	5-0-5	.....	.....
IMT	329	Personnel and Labor Relations	5-0-5	.....	.....
IMT	344	Management Decision Making	5-0-5	.....	.....
IET	401	Project Planning and Control	.....	2-2-3	.....
IET	424	Principles of Eng. Economy	.....	5-0-5	.....
Math	200	Calculus	.....	5-0-5	.....
		Free Electives	.....	3	6
		Technical Electives	.....	.....	6
		Totals	15-0-15	16	17

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

A technical elective is any subject having a degree-granting department designation, i.e., IET, AET, EET, etc.

ARCHITECTURAL ENGINEERING TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	123	Architectural History I	3-0-3	.....	.....
AET	143	Architectural Drawings and Materials	5-0-5	.....	.....
AET	300	Architectural Drawing Technique	.....	2-9-5	.....
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	.....	.....
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Hist	251 *or* 252	U.S. History	.....	.....	5-0-5
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Phys	201	Mechanics	.....	4-2-5	.....
		Totals	16-6-18	14-11-18	12-12-16

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	306	Dwelling House Design	2-9-5	.....	.....
AET	307	Architectural Working Drawings	.....	.....	2-9-5
AET	310	Model Building	.....	.....	0-3-1
AET	317	Structural Steel Design	.....	3-3-4	.....
AET	318	Reinforced Concrete Structures	.....	.....	3-3-4
AET	343	Mechanical & Electrical Equipment for Buildings	.....	3-0-3	.....
AET	344	Estimating	.....	.....	3-3-4
CET	311	Structural Drafting-Concrete	.....	.....	0-6-2
CET	314	Strength of Materials	3-3-4	.....	.....
CET	316	Indeterminate Structural Analysis	.....	3-0-3	.....
Engl	221	Public Speaking	3-0-3	.....	.....
Engl	231	Technical Writing	.....	3-0-3	.....
Math	114	Analytic Geom. & Calculus	.....	5-0-5	.....
Phys	203	Heat, Light, Sound & Modern Physics	4-2-5	.....	.....
		Totals	12-14-17	17-3-18	8-24-16

ARCHITECTURAL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	313	Building Materials	.....	3-0-3	.....
AET	323	Architectural History II	3-0-3	.....	.....
Chem	201	General Chemistry	.....	.....	4-2-5
Engl	200	Language & Logic	3-0-3	.....	.....
Engl	211 *or*				
	212	Man & Literature (I or II)	.....	5-0-5	.....
Math	200	Calculus	5-0-5	.....	.....
Math	215	Computer Programming	.....	.....	3-0-3
Psych	112	Psychology	5-0-5	.....	.....
		Free Electives	.....	5	3
		*Major Elective			
		AET 311 or AET 342	.....	3	.....
		*Major Elective			
		AET 301 or AET 433	.....	.....	5
		Totals	16-0-16	16	16

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	411	Site Planning	2-9-5	.....	.....
AET	419	Structural Design	.....	4-3-5	.....
CET	312	Structural Drafting-Steel	0-6-2	.....	.....
Econ	220	Economics	5-0-5	.....	.....
Hist	114 *or*				
	115	Western Civilization (I or II)	.....	5-0-5	.....
IET	424	Principles of Engineering Economy	.....	.....	5-0-5
		*Major Elective			
		AET 401 or AET 442	.....	.....	5
		*Major Elective			
		AET 412 or AET 441	.....	.....	3
		Totals	17	16	16

Note: Under Quarters 2-9-5 means 2 hours class, 9 hours lab, 5 hours credit.

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

Group A

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

Group B

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

CIVIL ENGINEERING TECHNOLOGY
Structural Materials and Design Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	143	Architectural Drawings and Materials	5-0-5	.....	.....
CET	121	Elementary Surveying	.....	2-6-4	.....
CET	313	Engineering Mechanics	.....	.....	3-0-3
CET	321	Route Surveys	.....	.....	3-6-5
Draw	111	Engineering Drawing I	0-6-2	.....	.....
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	.....	3-0-3
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytical Geom. & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
Phys	201	Mechanics	.....	4-2-5	.....
		Totals	13-6-15	14-8-17	17-6-19

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	317	Structural Steel Design	.....	3-3-4	.....
AET	318	Reinforced Concrete Structures	.....	.....	3-3-4
AET	344	Estimating	.....	.....	3-3-4
CET	311	Structural Drafting-Concrete	.....	0-6-2	.....
CET	312	Structural Drafting-Steel	.....	.....	0-6-2
CET	314	Strength of Materials	3-3-4	.....	.....
CET	315	Soils & Materials Testing	.....	3-6-5	.....
CET	316	Indeterminate Structural Analysis	3-0-3	.....	.....
CET	332 *or* 432	Heavy Construction Highway Design & Construction	.....	.....	3-0-3
CET	345	Municipal Sanit. & Hydraulics	.....	4-3-5	.....
Engl	231	Technical Writing	.....	.....	3-0-3
Hist	251 *or* 252	U.S. History	5-0-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	15-5-17	10-18-16 or 12-12-16	11-15-16

Note: Under Quarters 1-3-2 means 1 hour class, 3 hours lab, 2 hours credit.

CIVIL ENGINEERING TECHNOLOGY
Surveying and Construction Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	143	Architectural Drawings and Materials	5-0-5	.....	.....
CET	121	Elementary Surveying	.....	2-6-4	.....
CET	313	Engineering Mechanics	.....	.....	3-0-3
CET	321	Route Surveys	.....	.....	3-6-5
Draw	111	Engineering Drawing I	0-6-2	.....	.....
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	.....	3-0-3
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geom. & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
Phys	201	Mechanics	.....	4-2-5	.....
		Totals	13-6-15	14-8-17	17-6-19

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AET	344	Estimating	.....	.....	3-3-4
CET	311	Structural Drafting – Concrete	.....	.....	0-6-2
CET	314	Strength of Materials	3-3-4	.....	.....
CET	315	Soils & Materials Testing	.....	3-6-5	.....
CET	323	Land Surveys	2-6-4	.....	.....
CET	324	Topographic & Contour Surveying	.....	.....	2-6-4
CET	332	Heavy Construction	.....	.....	2-3-3
CET	345	Municipal Sanit. & Hydraulics	.....	4-3-5	.....
CET	421	Photogrammetry	.....	0-6-2	.....
CET	432	Highway Design & Construction	.....	.....	3-0-3
Engl	231	Technical Writing	.....	3-0-3	.....
Hist	251 *or* 252	U.S. History	5-0-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	14-11-18	10-15-15	10-18-16

Note: Under Quarters 1-3-2 means 1 hour class, 3 hours lab, 2 hours credit.

CIVIL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
*AET	317	Structural Steel Design	.....	3-3-4	.....
*AET	318	Reinforced Concrete Structures	.....	.....	3-3-4
*CET	312	Structural Drafting – Steel	.....	.....	0-6-2
*CET	316	Indeterminate Structural Analysis	3-0-3	.....	.....
**CET	323	Land Surveys	.....	.....	2-6-4
**CET	324	Topographic & Contour Surveying	2-6-4	.....	.....
**CET	332 *or*	Heavy Construction	.....	2-3-3	.....
**CET	432	Highway Design and Construction	.....	3-0-3	.....
Chem	201	General Chemistry	4-2-5	.....	.....
Econ	220	Economics	.....	5-0-5	.....
Engl	200	Language & Logic	3-0-3	.....	.....
Engl	211 *or* 212	Man & Literature (I or II)	.....	.....	5-0-5
Math	200	Calculus	5-0-5	.....	.....
Phys	202	Electricity & Magnetism	.....	4-2-5	.....
Psych	112	Psychology	.....	.....	5-0-5
*		Technical Electives	.....	3	.....
**		Technical Electives	.....	4	.....
**		Free Electives	.....	.....	2
		Totals	*15-2-16	17	16
			**14-8-17	17	16

CIVIL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
**AET	419	Structural Design	4-3-5	.....	.....
*CET	425	Advanced Surveying	2-6-4	.....	.....
CET	433	Construction Estimating & Scheduling	.....	.....	3-3-4
Hist	114 *or* 115	Western Civilization (I or II)	5-0-5	.....	.....
IET	424	Principles of Engineering Economy	.....	5-0-5	.....
*		Technical Electives	3	3	4
*		Free Electives	4	7	7
**		Technical Electives	3	3	4
**		Free Electives	2	7	7
		Totals	*7-6-16 **9-3-15	15	15

Note: Under Quarters 1-3-2 means 1 hour class, 3 hours lab, 2 hours credit.

*For students with an Associate in Surveying & Construction.

**For students with an Associate in Structural Materials & Design. A Technical Elective is any subject having a degree-granting department designation, i.e., IET, AET, EET, etc.


ΛΧΑ
PENN ST
ΛΧΑ

ELECTRICAL ENGINEERING TECHNOLOGY
Electronic Computer and Control Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Draw	111	Engineering Drawing I	0-6-2	.....	.....
EET	111	Circuit Analysis	.....	.....	5-3-6
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	3-0-3	.....
Hist	251 *or* 252	U.S. History	5-0-5	.....	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geom. & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
Phys	201	Mechanics	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	.....	.....	4-2-5
		Totals	13-6-15	15-2-16	17-5-19

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
EET	230	Electromechanical Devices	.....	2-3-3	.....
EET	272	Introduction to Semiconductor and Electronic Devices	5-3-6	.....	.....
EET	274	Circuit Analysis	5-3-6	.....	.....
EET	300	Semiconductor Circuits & Devices	.....	5-3-6	.....
EET	301	Computer Fundamentals	.....	3-3-4	.....
EET	302	Circuit Analysis	.....	3-3-4	.....
EET	321	Machine & Symbolic Programming	.....	.....	5-3-6
EET	339	Electronic Applications	.....	.....	3-3-4
EET	340	Pulse & Digital Circuits & Applications	.....	.....	5-3-6
Engl	231	Technical Writing	.....	.....	3-0-3
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	14-8-17	13-12-17	16-9-19

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

ELECTRICAL ENGINEERING TECHNOLOGY
Electronics Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Draw	111	Engineering Drawing I	0-6-2	.....	.....
EET	111	Circuit Analysis	.....	.....	5-3-6
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	3-0-3	.....
Hist	251 *or*				
	252	U.S. History	5-0-5	.....	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geom. & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
Phys	201	Mechanics	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	.....	.....	4-2-5
		Totals	13-6-15	15-2-16	17-5-19

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
EET	237	Electromechanical Layout & Fabrication	.....	2-3-3	.....
EET	272	Introd. to Semiconductor and Electronic Devices	5-3-6	.....	.....
EET	274	Circuit Analysis	5-3-6	.....	.....
EET	300	Semiconductor Circuits & Devices	.....	5-3-6	.....
EET	301	Computer Fundamentals	.....	3-3-4	.....
EET	302	Circuit Analysis	.....	3-3-4	.....
EET	339	Electronic Applications	.....	.....	3-3-4
EET	340	Pulse & Digital Circuits & Applications	.....	.....	5-3-6
EET	350	Electronic Circuits & Applications	.....	.....	5-3-6
Engl	231	Technical Writing	.....	.....	3-0-3
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	14-8-17	13-12-17	16-9-19

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

ELECTRICAL ENGINEERING TECHNOLOGY
Nuclear Safety Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	4-2-5	.....	.....
Draw	111	Engineering Drawing I	0-6-2	.....	.....
EET	111	Circuit Analysis	.....	.....	5-3-6
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	3-0-3	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geom. & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	3-0-3	.....
Phys	201	Mechanics	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	.....	.....	4-2-5
		Totals	12-8-15	18-2-19	14-5-16

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
EET	272	Introduction to Semiconductor and Electronic Devices	5-3-6	.....	.....
EET	274	Circuit Analysis	5-3-6	.....	.....
EET	300	Semiconductor Circuits & Devices	.....	5-3-6	.....
EET	301	Computer Fundamentals	.....	3-3-4	.....
EET	302	Circuit Analysis	.....	3-3-4	.....
EET	340	Pulse & Digital Circuits & Applications	.....	.....	5-3-6
Engl	231	Technical Writing	.....	.....	3-0-3
Phys	203	Heat, Sound, Light & Modern Physics	.....	.....	4-2-5
Phys	375	Introduction to Nuclear Radiation	4-2-5	.....	.....
Phys	377	Principles of Health Physics	.....	4-0-4	.....
Phys	379	Applied Health Physics	.....	.....	3-2-4
		Totals	14-8-17	15-9-18	15-7-18

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

Note: Graduates of the Electrical Engineering Technology Nuclear Safety Option Program must satisfy the requirements of the examination on the Constitution and Government of the United States and Georgia as required by state law.

ELECTRICAL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	4-2-5	.....	.....
EET	307	Electric Transmission	.....	5-3-6	.....
EET	308	Antennas and Microwaves	.....	.....	5-3-6
EET	323	Computer Programming Applications	3-3-4	.....	.....
Engl	200	Language and Logic	3-0-3	.....	.....
Engl	211 *or* 212	Man and Literature I or II	.....	.....	5-0-5
Math	200	Calculus	5-0-5	.....	.....
Psych	112	Psychology	.....	5-0-5	.....
		*Electives	.....	6	.....
		*Electives	.....	.....	6
		Totals	15-5-17	17	17

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Econ	220	Economics	5-0-5	.....	.....
EET	406	Survey of Electric Machinery	3-3-4	.....	.....
Hist	114 *or* 115	Western Civilization (I or II)	.....	5-0-5	.....
		*Electives	7	.....	.....
		*Electives	.....	10	.....
		*Electives	.....	.....	16
		Totals	8-3-16	15	16

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

*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 degree-granting department designated courses 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).

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

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

FIRE SCIENCE TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	.....	.....	4-2-5
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
FST	101	Intro. to Fire Protection	3-0-3	.....	.....
FST	102	Extinguishers & Alarms	.....	3-3-4	.....
FST	104	Fire Safety Codes & Material Rating	.....	3-0-3	.....
FST	106	Industrial Fire Protection	.....	.....	3-3-4
FST	111	Fire Department Organization & Administration	3-0-3	.....	.....
FST	144	Building Const. & Blueprint Reading	3-2-4	.....	.....
FST	201	Fire Fighting Tactics & Strategy	.....	.....	2-3-3
Hist	251 *or* 252	U.S. History	.....	.....	5-0-5
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
		Totals	17-2-18	14-3-15	14-8-17

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Engl	221	Public Speaking	3-0-3	.....	.....
Engl	231	Technical Writing	.....	.....	3-0-3
FST	203	Inspection Principles	.....	.....	3-3-4
FST	211	Hydraulics & Water Distribution	3-3-4	.....	.....
FST	213	Chemistry of Hazardous Materials	4-3-5	.....	.....
FST	233	Supervision & Human Relations	.....	3-0-3	.....
FST	234	Fixed Extinguishing Systems	.....	3-3-4	.....
Hist	114	Western Civilization I	.....	5-0-5	.....
Phys	201	Mechanics	4-2-5	.....	.....
		Free Electives	.....	.....	5-0-5
		*Technical Electives	.....	3-0-3	2-0-2
		Totals	14-8-17	14-3-15	13-3-14

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, and 3 hours credit.

*Technical electives must be selected from the following:

EET 482	Electrical Controls	5
FST 202	Transportation Hazards	2
FST 214	Fire Investigation & Law	3
FST 243	Fire Department Safety	3
IET 350	Industrial Safety	3

INDUSTRIAL ENGINEERING TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Draw	111	Engineering Drawing I	.....	.....	0-6-2
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	231	Technical Writing	.....	.....	3-0-3
IET	119	Introduction to Industrial Engineering Technology	5-0-5	.....	.....
IET	130	Data Processing	.....	3-2-4	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geometry & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
MET	111	Manufacturing Processes	5-0-5	.....	.....
Phys	201	Mechanics	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	.....	.....	4-2-5
		Totals	18-0-18	15-4-17	15-8-18

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Engl	221	Public Speaking	.....	3-0-3	.....
Hist	251 *or* 252	U.S. History	.....	.....	5-0-5
IET	227	Statistics I	.....	5-0-5	.....
IMT	310	Accounting & Cost Accounting	5-0-5	.....	.....
IET	322	Motion & Time Study	.....	4-2-5	.....
IET	326	Wage & Salary Administration	.....	.....	3-0-3
IET	334	Prod. & Inventory Control	.....	.....	3-0-3
IET	339	Statistical Quality Control	.....	.....	3-0-3
IET	340	Plant Layout & Materials Handling	.....	.....	2-4-4
IET	350	Industrial Safety	.....	2-2-3	.....
IET	424	Principles of Engineering Economy	5-0-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	14-2-15	14-4-16	16-4-18

Note: Under Quarters 4-2-5 means 4 hours class, 2 hours lab, 5 hours credit.

INDUSTRIAL ENGINEERING TECHNOLOGY
Industrial Management Option
Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Draw	111	Engineering Drawing I	0-6-2	.....	.....
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	221	Public Speaking	.....	3-0-3	.....
Engl	231	Technical Writing	.....	.....	3-0-3
IET	119	Introduction to Industrial Engineering Technology	5-0-5	.....	.....
IMT	310	Accounting & Cost Accounting	.....	.....	5-0-5
IET	350	Industrial Safety	2-2-3	.....	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geometry & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	3-0-3	.....
Phys	201	Mechanics	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	.....	.....	4-2-5
		Totals	15-8-18	18-2-19	17-2-18

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Econ	220	Economics	5-0-5	.....	.....
Hist	251 *or* 252	U.S. History	.....	5-0-5	.....
IET	227	Statistics I	5-0-5	.....	.....
IET	322	Motion and Time Study	.....	4-2-5	.....
IMT	329	Personnel & Labor Relations	.....	5-0-5	.....
IET	334	Prod. & Inventory Control	.....	.....	3-0-3
IET	340	Plant Layout & Materials Handling	.....	.....	2-4-4
IMT	341	Finance	.....	3-0-3	.....
IMT	343	Business Law I	3-0-3	.....	.....
IMT	345	Marketing	.....	.....	3-0-3
IET	424	Principles of Engineering Economy	.....	.....	5-0-5
Phys	203	Heat, Sound, Light & Modern Physics	4-2-5	.....	.....
		Totals	17-2-18	17-2-18	13-4-15

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

INDUSTRIAL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	4-2-5	.....	.....
Econ	220	Economics	5-0-5	.....	.....
EET	482	Electrical Controls	.....	.....	5-0-5
Math	200	Calculus	5-0-5	.....	.....
MET	301	Fluid Mechanics	.....	.....	5-0-5
MET	322	Thermodynamics	.....	5-0-5	.....
*MET	323	Statics	3-0-3	.....	.....
*MET	324	Strength of Materials	.....	3-3-4	.....
Psych	112	Psychology	.....	5-0-5	.....
		Free Electives	.....	5	5
		Totals	17-2-18	18-3-19	15-0-15

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

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Engl	200	Language & Logic	.....	3-0-3	.....
Engl	211 *or*				
	212	Man & Literature (I or II)	5-0-5	.....	.....
Hist	114 *or*				
	115	Western Civilization (I or II)	.....	5-0-5	.....
IET	327	Statistics II	3-0-3	.....	.....
IMT	329	Personnel & Labor Relations	.....	.....	5-0-5
IMT	343	Business Law I	.....	.....	3-0-3
IMT	344	Management Decision Making	.....	5-0-5	.....
IET	401	Project Planning & Control	.....	.....	2-2-3
IET	465	Synthetic Work Measurement	4-2-5	.....	.....
		Free Electives	4	3	5
		Totals	17	16	16

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

Students who have completed the Management Option Associate Degree Program may enter this program without loss of credit. They will be required to take the following courses in addition to the courses listed on this page: IET 130, IET 339, IET 326, and MET 111.

MECHANICAL ENGINEERING TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Draw	111	Engineering Drawing I	.....	0-6-2	.....
Engl	111	Composition & Rhetoric	.....	3-0-3	.....
Engl	112	Composition & Thetoric	.....	.....	3-0-3
Hist	251 *or* 252	U.S. History	5-0-5	.....	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geometry & Calculus	.....	.....	5-0-5
MET	111	Manufacturing Processes	5-0-5	.....	.....
MET	142	Metal Cutting Operations I	1-3-2	.....	.....
MET	144	Metal Joining	.....	.....	1-3-2
MET	314	Engineering Materials	.....	4-3-5	.....
MET	117	Engineering Drawing II	.....	.....	0-6-2
MET	143	Metal Cutting Operations II	.....	1-3-2	.....
Phys	201	Mechanics	.....	.....	4-2-5
		Totals	16-3-17	13-12-17	13-11-17

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
EET	482	Electrical Controls	.....	.....	5-0-5
Engl	221	Public Speaking	3-0-3	.....	.....
Engl	231	Technical Writing	.....	.....	3-0-3
Math	215	Computer Programming	3-0-3	.....	.....
MET	319	Thermodynamics I	.....	.....	5-0-5
MET	323	Statics	3-0-3	.....	.....
MET	324	Strength of Materials	.....	3-3-4	.....
MET	325	Machine Design I	.....	.....	3-3-4
MET	332	Metrology	.....	3-3-4	.....
MET	341	Jig & Fixture Design	2-3-3	.....	.....
MET	362	Introduction to Design	.....	1-3-2	.....
MET	373	Instruments Laboratory	.....	.....	0-3-1
Phys	202	Electricity & Magnetism	4-2-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	.....	4-2-5	.....
		Totals	15-5-17	11-11-15	16-6-18

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

MECHANICAL ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	.....	4-2-5	.....
Draw	311	Descriptive Geometry	.....	1-5-3	.....
Engl	200	Language & Logic	.....	3-0-3	.....
Engl	211 *or*				
	212	Man & Literature (I or II)	5-0-5	.....	.....
Math	200	Calculus	5-0-5	.....	.....
MET	301	Fluid Mechanics	.....	5-0-5	.....
MET	320	Thermodynamics II	5-0-5	.....	.....
MET	328	Kinematics	.....	.....	3-3-4
MET	333	Numerical Control	2-3-3	.....	.....
MET	426	Machine Design II	.....	.....	3-3-4
Psych	112	Psychology	.....	.....	5-0-5
		Technical Elective	.....	.....	5
		Totals	17-3-18	13-7-16	18

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Econ	220	Economics	.....	5-0-5	.....
Hist	114 *or*				
	115	Western Civilization (I or II)	5-0-5	.....	.....
IET	424	Principles of Engineering Economy	.....	.....	5-0-5
MET	428	Dynamics of Machinery	3-3-4	.....	.....
		Science Electives	3	.....	.....
		Technical Electives	3	6	6
		Free Electives	.....	6	6
		Totals	15	17	17

Note: Under Quarters 3-0-3 means 3 hours class, 0 hours lab, 3 hours credit.

A technical elective is any subject having a degree-granting department designation, i.e., IET, AET, EET, etc.

TEXTILE ENGINEERING TECHNOLOGY

Associate Degree Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	201	General Chemistry	.....	4-2-5	.....
Draw	111	Engineering Drawing I	.....	.....	0-6-2
Engl	111	Composition & Rhetoric	3-0-3	.....	.....
Engl	112	Composition & Rhetoric	.....	3-0-3	.....
Engl	231	Technical Writing	.....	.....	3-0-3
Hist	251 *or*				
	252	U.S. History	5-0-5	.....	.....
Math	111	Algebra	5-0-5	.....	.....
Math	112	Trigonometry	.....	5-0-5	.....
Math	114	Analytic Geometry & Calculus	.....	.....	5-0-5
Math	215	Computer Programming	.....	.....	3-0-3
Phys	201	Mechanics	.....	.....	4-2-5
TET	111	Fibers & Fabrics	3-0-3	.....	.....
TET	312	Industrial Photography	.....	2-3-3	.....
		Totals	16-0-16	14-5-16	15-8-18

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AMET	243	Survey of Apparel Manufacturing	.....	.....	3-0-3
Engl	221	Public Speaking	3-0-3	.....	.....
IET	227	Statistics I	5-0-5	.....	.....
IMT	310	Accounting & Cost Accounting	.....	4-2-5	.....
IET	322	Motion & Time Study	.....	4-2-5	.....
Phys	202	Electricity & Magnetism	4-2-5	.....	.....
Phys	203	Heat, Sound, Light & Modern Physics	.....	4-2-5	.....
TET	224	Yarn Manufacturing I	3-0-3	.....	.....
TET	225	Yarn Manufacturing II	.....	3-0-3	.....
TET	262	Textile Chemistry & 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 & Quality Control	.....	.....	3-3-4
		Totals	15-2-16	15-6-18	15-9-18

Note: Under Quarters 4-2-5 means 4 hours class, 2 hours lab, 5 hours credit.

TEXTILE ENGINEERING TECHNOLOGY

Bachelor of Engineering Technology

Junior and Senior Years

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Chem	321	Organic Chemistry	.....	.....	4-3-5
Econ	220	Economics	5-0-5	.....	.....
Engl	200	Language & Logic	.....	.....	3-0-3
Engl	211 *or*				
	212	Man & Literature (I or II)	.....	5-0-5	.....
IMT	316	Principles of Management	3-0-3	.....	.....
IET	334	Production & Inventory Control	.....	.....	3-0-3
IET	339	Statistical Quality Control	.....	3-0-3	.....
Math	200	Calculus	5-0-5	.....	.....
TET	364	Principles of Knitting	3-0-3	.....	.....
		Science Electives	.....	3	.....
		Free Electives	.....	5	5
		Totals	16-0-16	16	16

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
Hist	114 *or*				
	115	Western Civilization (I or II)	.....	5-0-5	.....
IMT	329	Personnel & Labor Relations	.....	.....	5-0-5
IET	340	Plant Layout & Materials Handling	2-4-4	.....	.....
IMT	341	Finance	3-0-3	.....	.....
IMT	343	Business Law I	.....	3-0-3	.....
IET	350	Industrial Safety	.....	2-2-3	.....
IET	424	Principles of Engineering Economy	.....	.....	5-0-5
MET	433	Industrial Instrumentation and Control	.....	.....	2-2-3
Psych	112	Psychology	5-0-5	.....	.....
TET	462	Dyeing Man-Made Fibers	.....	.....	3-3-4
		Free Electives	4	4	.....
		Totals	16	15	15-6-17

Note: Under Quarters 4-2-5 means 4 hours class, 2 hours lab, 5 hours credit.

TEXTILE MANAGEMENT TECHNOLOGY

Associate Degree Program

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

	Quarter Hours
Humanities	15
Social Sciences	15
Mathematics*	10
Natural Science*	10
Business Administration	25
Textile Management Technology** (select any five)	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	3
Total	103

Note: The Textile Management Technology is currently offered at Gordon Junior College at Barnesville, and Columbus College at Columbus.

*Students enrolled in the TMT 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.

**Select any five of the six TMT courses.

MILITARY SCIENCE – AIR FORCE
Air Force Reserve Officer Training Corps

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AS	1610	Introduction to Today's Air Force	1-1-1	.....	.....
AS	1620	Air Force Operational Activities	.....	1-1-1	.....
AS	1630	Air Force Support Activities	.....	.....	1-1-1
		Totals	1-1-1	1-1-1	1-1-1

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AS	2610	Air Power, the Early Years	1-1-1	.....	.....
AS	2620	Air Power, W.W. II to Korea	.....	1-1-1	.....
AS	2630	Air Power, the Later Years	.....	.....	1-1-1
		Totals	1-1-1	1-1-1	1-1-1

Professional Officer Course*

This two-year phase concentrates on the concepts and practice of leadership and of management, especially as related to the U.S. Air Force; the elements of military sociology; the framework, formulation and implementation of U.S. defense policy; and the strategy and management of conflict.

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AS	3310	Air Force Management	3-1-3	.....	.....
AS	3320	Air Force Leadership	.....	3-1-3	.....
AS	3330	Air Force Jurisprudence	.....	.....	3-1-3
		Totals	3-1-3	3-1-3	3-1-3

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
AS	4210	Civil Military Relations	3-1-3	.....	.....
AS	4220	U.S. Nuclear Defense Strategy	.....	3-1-3	.....
AS	4320	U.S. Defense Policy	.....	.....	3-1-3
		Totals	3-1-3	3-1-3	3-1-3

*Classes are available only on the Georgia Tech campus.

MILITARY SCIENCE – ARMY

Basic Course Curriculum

The basic course consists of six Military Science (MS) courses which are normally taken in the following sequence. Optional courses 01X may be taken at any time. History 251 or 252 is required during the basic course.

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
MS	110	Orientation: The Military Role in Perspective	1-1-1	.....	.....
MS	120	Terrain Analysis and Land Navigation	.....	1-1-1	.....
MS	104	Leadership Development	.....	.....	0-1-0
		Totals	1-1-1	1-1-1	0-1-0

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
MS	202	Military Skills	1-1-0	.....	.....
MS	220	Seminar on Communications & Instructional Methods	.....	2-1-2	.....
MS	204	Leadership Development	.....	.....	0-2-0
		Totals	1-1-0	2-1-2	0-2-0
MS	01X	Optional Courses*	1-1-0	1-1-0	1-1-0

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

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 and one history course (Hist 115). Five of the military-science courses constitute a core curriculum to be completed by all students enrolled in the advanced course. The remaining military-science course is selected from the branch material course offering.

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
MS	300	Analysis of Command and Leadership	2-1-2	.....	.....
MS	310	Tactical Decision Making	.....	3-1-3	.....
MS	304	Leadership Development	.....	.....	0-1-0
		Totals	2-1-2	3-1-3	0-1-0

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
MS	4X3	Branch Material	3-1-3	.....	.....
MS	410	Military Administrative Operations*	.....	2-1-2	.....
MS	404	Leadership Development	.....	.....	0-1-0
		Totals	3-1-3	2-1-2	0-1-0

*Hist 115 is reqired. Any one of the three political-science courses (Pol. 3202, Pol. 3204, or Pol. 3205) which are taught at Georgia Institute of Technology may be taken in lieu of Hist 115.

MILITARY SCIENCE – NAVY

Naval Officer Education Program

First Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
NS	1001	Naval Organization and Sea Power	2-1-2	.....	.....
NS	1002	Naval Ship Systems I	.....	2-1-2	.....
NS	1003	Naval Ship Systems II	.....	.....	2-1-2
		Totals	2-1-2	2-1-2	2-1-2

Second Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
NS	2001	Naval Management	2-1-1	.....	.....
NS	2003	Military Law	.....	.....	2-1-1
NS	2012	Seapower & Maritime Affairs	.....	2-1-2	.....
		Totals	2-1-1	2-1-2	2-1-1

Third Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
NS	3001	Navigation I	3-2-3	.....	.....
NS	3002	Navigation II	.....	3-2-3	.....
NS	3003	Naval Operations	.....	.....	3-2-3
		Totals	3-2-3	3-2-3	3-2-3

Fourth Year

Course	*No.*	*Subject*	*1st Q.*	*2nd Q.*	*3rd Q.*
NS	4001	Naval Weapons Systems I	3-1-3	.....	.....
NS	4002	Naval Weapons Systems II	.....	3-1-3	.....
NS	4003	Naval Personnel Administration	.....	.....	3-1-3
		Totals	3-1-3	3-1-3	3-1-3

Subject Descriptions

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 in 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 in 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 the 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 marker 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, 364.

Integrates all phases of apparel production by planning the best production cycle for an apparel item from receipt of raw material to 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 physical properties and customary use.

AET 300 – Architectural Drawing Technique
2-9-5. Prerequisites – Draw 111, AET 143.

An introduction to architectural drawing as applied in 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 jobsite 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. Prerequisites – 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 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 307, AET 301, 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 306, AET 301.

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 by consent of the 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/History 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 by permission 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 by permission 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 the 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 department head's approval.

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

BIOLOGY

Biology 201 – Principles of Biology
2-3-3.

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

Biology 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 stain 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 asphalt. 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 114.

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 acceleartion; 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 con-

sisting 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, cofferdams, 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, 318, CET 316.

Structural analysis and design using moving loads as applied to an indeterminate structure. American Association of State Highway Officials (AASHO) design standards are used and applied to a term project that consists of designing a highway bridge. A bridge is studied from conception to the completion of design.

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, infra red, 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
3-0-3. 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 & Scheduling
3-3-4. Prerequisites – AET 344 and either 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.

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.

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.

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
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 – Electronic Drawing
1-5-3. 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 – Eng 111, Phys 201, and Math 114 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 114, 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 114.

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 semidonductor 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 200.

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 200.

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 pro-

grammable 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 – Junior standing.

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

EET 422 – Digital Computer Systems
3-3-4. Prerequisites – EET 301, 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. (Note: Credit for nonelectrical students only.)

Electrical fundamentals, circuits, wiring methods, motors, and control circuits of electrical equipment.

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 099 – 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. Required for all international students.

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

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 391-395 – Special Topics
Variable Credit – 1 to 5 hours. Prerequisite – Consent of instructor.

Special topics in communications and literature. Selected 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.

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 students' ability to perform 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 clauses, 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, and 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 fire-safety analysis of proposed construction.

FST 201 – Firefighting Tactics and Strategy
2-3-3. Prerequisites – FST 101, FST 111, or consent of the 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 placed on building design and construction; fundamentals of inspection techniques, recognition of fire hazards, 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. Prerequisites – Math 111, 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 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 – Fixed 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 department head's approval.

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; shipbuilding; 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. Selected 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 – Statistics I
5-0-5. Prerequisite – Math 114.

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 – Psychology 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 – Statistics II
3-0-3. Prerequisites – IET 227 and 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 the 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 fund-

amentals 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 the 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 114 and 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.*

IMT 344 – Management Decision Making
5-0-5. Prerequisites – IET 227 and either 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 OSHAct requirements. Included are laboratories designed to show how the OSHAct 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 114, either IET 130 or Math 215, and 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 – Senior standing, IET or IMT major.

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 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.

Math 099 – Preparatory Algebra (Institutional Credit Only)
5-0-5.

A review of the fundamentals of algebra.

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 Math Test indicate ability to succeed in accelerated mathematics.)

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 Math 099.

Systems of equations; exponents and radicals; quadratic functions, graphs of functions; ratios, proportion and varia-

tion; 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 114 – Analytic Geometry and Calculus
5-0-5. Prerequisites – Math 110 or Math 111 and Math 112.

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

Math 200 – Calculus
5-0-5. Prerequisite – Math 114.

A continuation of Math 114. Topics include differentiation and integration of transcendental functions, integration formulas and procedures, series, polar coordinates, partial differentiation, and multiple integration.

Math 205 – Probability and Statistics
3-0-3. Prerequisite – Math 114.

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 206 – Differential Equations
3-0-3. Prerequisite – Math 200.

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

Math 215 – Computer Programming
3-0-3. Prerequisites – Math 111, Math 112.

A fundamental course in Fortran IV programming.

Math 245 – Finite Math
5-0-5. Prerequisite – Math 114.

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 315 – Advanced Fortran Programming
3-0-3. Prerequisite – Math 215. (This course not open to students who take EET 323.)

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.

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 200, MET 319 or 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 114, 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 114, 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
3-3-4. Prerequisites – Phys 201, 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
3-3-4. 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 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
5-0-5. Prerequisite – MET 319 or 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
5-0-5. Prerequisite – MET 319 or 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 314, MET 117.

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 and Projects
Variable Credit – 1 to 5 hours. Prerequisite – Permission of Department Head.

Courses for the student interested in creative work.

MET 426 – Machine Design II
3-3-4. Prerequisites – MET 324, 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
3-3-4. 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. Prerequisites – Completion of required physics courses.

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
3-3-4. Prerequisites – MET 117, MET 111.

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
5-0-5. 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 491-495 – Special Topics
Variable Credit – 1 to 5 hours. Prerequisite – Permission of 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.

PROFESSIONAL OFFICER COURSE

This two-year course concentrates on these main themes: The sociological aspects of the military professions; the framework, formulation and implementation of American defense policy; the concepts and practices of leadership;

and the concepts and practices of management, especially as related to the U.S. Air Force.

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 011 – Competitive Marksmanship
1-1-0. Prerequisite – At least one quarter of basic ROTC or permission of the PMS.

A course designed to teach the fundamental characteristics and firing techniques of the 22-caliber rifle for individual familiarization and participation in competitive events. (Optional)

MS 012 – Survival Techniques
1-1-0. Prerequisite – At least one quarter of basic ROTC or permission of the PMS.

A course designed to prepare an individual to sustain himself under austere and adverse conditions. (Optional)

MS 013 – Ranger Company
1-1-0. Prerequisite – At least one quarter of basic ROTC or permission of the PMS.

An organization designed to train and prepare the small-unit leader with patrolling, military mountaineering and stream-crossing operations. (Optional)

MS 014 – Drill Team/Honor Guard
1-1-0. Prerequisite – At least one quarter of basic ROTC or permission of the PMS.

An organization designed to teach the fundamentals and principles of individual and team precision drill competition and participation in military and civilian ceremonies. (Optional)

MS 015 – Orienteering (Terrain Navigation)
1-1-0. Prerequisite – At least one quarter of basic ROTC or permission of the PMS.

A course designed to train the student in navigational techniques using terrain analysis and association. (Optional)

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.

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 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.

BRANCH MATERIAL COURSES

MS 413 – Air Defence Missile Systems
3-1-3. Prerequisite – Advanced ROTC standing.

A study of the Army Air Defense missile systems utilized to protect military and civilian assets in the United States and overseas.

MS 433 – Military Construction Management
3-1-3. Prerequisite – Advanced ROTC standing.

A study of construction management as applied to military construction to support combat operations. Emphasis is placed on construction project planning and control techniques.

MS 443 – Advanced Infantry Tactics and Techniques
3-1-3. Prerequisite – Advanced ROTC standing.

A study of staff and command actions, estimates, and orders in the employment of infantry units and support elements from other branches and services.

MS 453 – Ordnance Management
3-1-3. Prerequisite – Advanced ROTC standing.

An analysis of management theories, concepts and practices. Emphasis is on management functions, human relations and interpersonal communications as they relate to the ordnance officer.

MS 463 – Strategic Communications Electronic Systems
3-1-3. Prerequisite – Advanced ROTC standing.

An analysis of Division Corps and Field Army Communications. A study of U.S. Army Strategic Communications Command communicating requirements and facilities, to include satellite communications.

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 099 – Basic Concepts for the Physical Sciences (Institutional Credit Only)
5-0-5. Prerequisite – Math 099 or consent of the Head of Special Studies.

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.

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. Prerequisite – Completion of required sequence in physics.

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 of 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 of 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 systems, stars, nebula, 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 physics courses and Math 114.

The 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

Psych 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 measure-

ment, 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.*

READING

Read 099 – 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.

SOCIAL STUDIES

Soc Stud 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.

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.

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 – Consent of instructor or third-quarter sophomore standing.

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 – Special 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 – Special 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 TECHNOLOGY

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.


TECH
42
TECH
30

Student Rules and Regulations

Adopted May 4, 1976

I. General

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.

II. 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.

III. Attendance

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 class, the students will wait fifteen minutes for him. If the instructor has not arrived by then, they may leave, unless notified to wait for his 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 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 and quizzes, or laboratory sessions.

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

D. Absences from Campus: Dormitory students who leave the city for more than three days, except for official college holidays, must inform the Dean of Student Affairs prior to their departure.

E. 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 professor.

Whenever a student comes to class after the roll has been taken, it is his responsibility to report to the professor after the class and see that the mark has been changed from absence to tardy.

F. 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.

IV. 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

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

student is removed from class under IV G, "General Requirements" as listed in the College Catalog. A grade of "WF" in a course will be counted in the student's grade point 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 or
2. Written request from the student received by the Admissions and Registrar's Office on or before the prescribed date for official withdrawal.

Courses carying the "W" grade will not be counted in the student's grade point 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 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 Registrar's Office. Such notice may be accomplished by completion and submission of the official audit form to the Registrar's Office 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 (3) 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 has received a final grade. Note: "F" and "WF" grades will be included in the computation. 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:

Freshman	0 – 49 Credit Hours
Sophomore	50 – 99 Credit Hours
Junior	100 – 149 Credit Hours
Senior	150 – To Graduation

2. Students scheduled for twelve credit hours or more are classified as full-time students.

F. Maximum Credit 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: Students (full-time) with a grade point 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 overall scholastic average drops below the minimum satisfactory scholarship requirement as listed below for any quarter shall be placed on academic warning.

Year	Credit Hours	Average
Freshman	0 – 49 earned	1.5
Sophomore	50 – 99 earned	1.7
Junior	100 – 149 earned	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.

V. 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 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 grade point 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.

VI. 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 (5th) 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 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.

VII. 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 course of study in which he or she is specializing, (2) has achieved the necessary scholastic point 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 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 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 grade point 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 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

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

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.

VIII. 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.

IX. 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.

X. Educational Records

Southern Technical Institute maintains educational records for each matriculating student in accordance with the policy of the Board of Regents of the State of Georgia and the Family Educational Rights and Privacy Act of 1974. All student records maintained by the institution are considered confidential, and, except as authorized by the Rights and Privacy Act may not be released for use outside the institution without the written permission of the student.

The administrative and teaching staff of the institution will be given access to these records, without prior consent, when a legitimate educational need arises. Moreover, the institution will make available to students access to his or her records except as precluded in the Act. Specific guidelines and regulations concerning the maintenance,

release and access to the records are set forth in this publication under General Information.

XI. 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.

XII. 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 non-resident students; provided, however, that 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 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.

Please 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.

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 officers whose nation operates on the principle of educational reciprocity with the United States.

K. Military persons and their dependents, stationed in Georgia and on active duty will not be assessed a nonresident fee but shall pay the same fees assessed residents of Georgia.

XIII. Conduct

A. 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 institute and subject to discipline fall into the categories of academic and non-academic misconduct.

1. 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:
   a. possessing, using or exchanging written or verbal information not authorized by the instructor in the preparation of any essay, laboratory report, examination or other assignment included in an academic course;
   b. unauthorized collaboration with, or substitution for, a student in the commission of their academic requirements;
   c. 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);
   d. false claims of credit for work which has not been submitted by the claimant;
   e. alteration or insertion of any academic grade or rating so as to obtain unearned academic credit;
   f. willful falsification of a written or verbal statement of fact to a member of the faculty so as to obtain unearned academic credit; and
   g. forgery, alteration, or misuse of any college document relating to the academic status of the student.
2. Nonacademic Midconduct: 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:
   a. Alcohol
      (1) Conspicuous or flagrant possession of alcoholic beverages.
      (2) Intoxication made manifest by boisterousness, rowdiness, obscene or indecent conduct or appearance, or vulgar, profane, lewd or unbecoming language.
      (3) Disorderly conduct associated with the use of alcoholic beverages.
      (4) Consumption or possession of alcoholic beverages at public events including all athletic events.
   b. Damage to Property
      Malicious or unauthorized intentional damage or destruc-

tion of property belonging to the college, to a member of the college community, or to a visitor to the campus.

c. Disorderly Conduct
   (1) 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.
   (2) 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.
   (3) Lewd, indecent or obscene conduct or expression.
   (4) Failure to comply with instructions or directions of any properly identified faculty, administrator or staff personnel when these persons are acting in the performance of their duties.
   (5) The abuse or unauthorized use of sound amplification equipment indoors or outdoors. (Use of sound amplification equipment must be approved by the Student Affairs Office.)
   (6) Pushing, striking, or otherwise physically assaulting anyone on campus.
   (7) 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.

d. 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 2a.

e. Entry or Use of College Facilities
   (1) Unauthorized entry into any college building, office or other facility.
   (2) Unauthorized use of any college telephone facility or of any other institute facilities.
   (3) Possessing, using, making or causing to be made any key or keys for any college facility without proper authorization.
   (4) Unauthorized use of another student or faculty member's password 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 access to computer files.

f. False Information and Record Falsification
   (1) Furnishing false information to any college official or offering false statement in any college's disciplinary hearing.

(2) Forgery, alteration or misuse of any college document, record or identification.

g. 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.

h. 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.

i. Safety
(1) 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.
(2) Tampering with fire-fighting equipment, safety devices or other emergency or safety equipment.
(3) Setting an unauthorized fire.
(4) 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.
(5) Unauthorized sale, possession, furnishing or use of any incendiary device or bomb.
(6) 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.

j. Theft
(1) Theft of property.
(2) Unauthorized possession of institute property, personal property of members of the institute community, or that of visitors.

k. Complicity (Joint Responsibility for Infractions)
Knowingly act in concert with any other person to perform an unlawful act or to violate a college regulation or policy.

l. Residence
Violation of rules governing residence in college owned or controlled property (dormitories, fraternities, organizations, etc.)

m. Gambling
Playing of cards or any other games of skill or chance for money or other items of value.

n. 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 institute.

o. Law Violations and Off-Campus Violations of the Student Conduct Code occurring Outside College-Owned or Controlled or Related Premises
Violations, whenever they may occur, of the conduct code and/or the laws of any city, county, or state or the United

States, where the violative act creates a clear and present danger of material interference with the normal or orderly processes of the college or its requirements of appropriate discipline.

p. Violations of the Student Motor Vehicle Regulations
Violations fall within the jurisdiction of the Southern Tech Police Department.

q. Campus Disruption
Violation of the Regents' Statement on Disruptive Behavior, the full text of which is given in Section (8) p. 117.

B. Disciplinary Administration

1. Disciplinary Procedures

a. All acts of misconduct (excepting violations of motor vehicle regulations) on the part of students shall be reported to the Dean of Student Affairs, who is designated the principal administrator to enforce institute disciplinary measures as they pertain to student academic and non-academic misconduct.

b. The Dean of Student Affairs shall cause to be investigated alleged acts of student misconduct. The dean may appoint a staff member(s) to conduct an inquiry into alleged misconduct act(s) and the appointed member(s) shall recommend to the Dean of Student Affairs what further action, if any, might be initiated. When additional action is indicated, the Dean of Student Affairs shall notify the accused student(s) in writing. Cases of academic misconduct are referred to the Student-Faculty Honor Committee through the hearing-body chairperson, Cases of nonacademic misconduct are referred to the Judicial Committee, through the hearing-body chairperson.

c. When written notification is made by the Dean of Student Affairs to a student(s) for alleged academic misconduct 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 the student(s) is alleged to have violated.

d. The Dean of Student Affairs or his authorized representative will normally confer with the accused student(s) and at this conference the student(s) may admit or deny the alleged violation, the student(s) may waive further hearing(s) and appeal(s) in writing and request that the Dean of Student Affairs take appropriate action, or he or she may request a hearing as specified in (e), (f) or (g) below.

e. Cases of academic misconduct will normally be referred to the Student-Faculty Honor Committee, which shall hear and try cases involving academic misconduct on the part of any student(s).

f. Cases of serious nonacademic misconduct which may result in suspension or expulsion will normally be referred to the Judicial Committee, which shall hear and try these cases. (This does not preclude possible legal actions by appropriate law-enforcement agencies in those cases of non-

academic misconduct in violation of federal, state or local law.)

g. If the case does not involve possible suspension or expulsion, the Dean of Student Affairs ordinarily shall make full disposition of the case except that he or she shall at the request of the accused or for good cause may refer any case of non-academic misconduct to the Judicial Committee.

h. A student(s) accused of an act of academic misconduct 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 Student Affairs if they so request.

i. An accused student(s) will continue to attend classes and required institute functions until the hearing is held and a decision is rendered. Exceptions to this will be made when the student(s) presence may create a clear and present danger of materially interfering with the institute's normal operations or the requirements of appropriate institute discipline. In such cases, the Dean of Student Affairs may impose temporary protective measures, including interim suspension, pending the hearing; such protective measure, if applied, will be without reasonably avoidable prejudice to the student(s).

2. Student-Faculty Honor Committee

a. The Student-Faculty Honor 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*. The three members of the faculty are appointed for two-year terms by the Dean. They may succeed themselves, but must be reappointed by the Dean.

(1) The Committee shall hear and try all cases involving dishonesty in academic matters on the part of students, and shall recommend appropriate disciplinary action to the Dean of Student Affairs.

3. Judicial Committee

a. The Judicial Committee of the college shall consist of five members of whom three shall be members of the faculty appointed by the Executive Director of the College and *two shall be regularly enrolled students recommended by* the President of the Student Government Association and appointed by the Executive Director of the College.

b. The members of the Judicial Committee shall select each year one of their own members to act as presiding officer. The Office of Student Affairs shall be responsible for providing to the Judicial Committee, when necessary, a member of its staff to perform recording functions.

4. Procedural Rights of Accused

a. A student(s) accused of an act(s) of misconduct and summoned to a hearing before the Student-Faculty Honor Committee, or Judicial Committee shall have the right to: (1) be accompanied by an adviser of his or her choice,

(2) remain silent with no inference of guilt drawn therefrom,
(3) question the complainant,
(4) present evidence in his or her behalf,
(5) call pertinent witnesses in his or her behalf,
(6) cross-examine witnesses, and
(7) appeal.

5. Hearing Procedures
   a. The chairman of the hearing body shall set the date, time and place of the hearing, shall notify the members of the hearing body and summon all principals in the case (defendants and witnesses).
   b. In cases referred to the Student-Faculty Honor Committee, or Judicial Committee, 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 to the student's local address. The written notification should specify:
      (1) The date, time and place of the hearing.
      (2) A statement of the nature of the alleged or suspected misconduct with which he is accused, with sufficient particularity to ensure opportunity to prepare for the hearing.
      (3) Names of witnesses scheduled to appear.
   c. Decisions of the hearing body shall be by majority vote. A quorum for the Student-Faculty Honor Committee shall consist of four members, two faculty and two students. A quorum for the Judicial Committee shall consist of three members, two faculty and one student.
   d. Any member of the hearing body shall disqualify himself or herself if his or her personal involvement in the hearing is of such a nature as to prejudice the case.
   e. The hearings of the Student-Faculty Honor Committee, or Judicial Committee shall ordinarily be closed except for the accused and his or her adviser and those directly involved; exceptions may be made at the discretion of the chairman. The hearing body may exclude any person who may be reasonably expected to interfere materially with the hearing or who does interfere materially with the hearing. Hearing body deliberations are closed to all but the hearing-body members.
   f. The hearing body shall make a tape recording and/or summary transcription of the proceedings.
   g. The hearing body shall provide a brief written summary of each case with recommendations of the committee and implement disciplinary action.

6. 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.)

a. Expulsion – permanent severance of the student's relationship with the institute.
b. 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 chances for readmission.
c. 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.
d. Reprimand
   Oral reprimand – an oral disapproval issued to the student.
   Letter reprimand – a written statement of disapproval to the student.
e. Restrictions – exclusion from enjoying or participating in:
   (1) Social activities
   (2) Identification-card privileges
f. Fines
g. Restitution – reimbursement for damage to or misappropriation of property; this may take the form of appropriate service or other compensation.
h. Forced Withdrawal – from the academic course within which the offense occurred without credit for the course.
i. Change in grade – for the course in which the offense occurred.

7. Appeal Procedures
   a. An accused or an accuser who is dissatisfied with the action taken by the Dean of Student Affairs 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 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.

FACULTY EXECUTIVE COMMITTEE

The Faculty Executive Committee is a committee of the

General Faculty and consists of eight members. These include the Associate Executive Director, who shall be the chairperson, the Registrar (nonvoting), who shall be the secretary; the Dean of Student Affairs (nonvoting); and five members elected from the teaching faculty. Elected members serve terms of two years and may not succeed themselves. The terms are nonconcurrent; and initially, two members – one from each division – are elected for one year and two – one from each division – for two years. Elections to replace the elected members will be held at the last faculty meeting of each spring quarter.

b. 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 by 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 may apply to the Board of Regents, without prejudice to his 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.)

8. 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) acquiesence to demands of the demonstrators is the condition for dispersal and (2) the reasonable and written directions of institutional officials to 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 new 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.)

XIV. Student Motor Vehicles

Students desiring to operate motor vehicles on campus are subject to all rules set forth by the student motor-vehicle regulations.

XV. Health Care

A. The medical fee paid by the student entitles him or her to clinical services for minor illnesses by the college nurse in the clinic located adjacent to the TV lounge of Norton Dormitory (Dorm #1). The student is entitled to services of the college doctor in Marietta when referred by the Southern Tech nurse. The facilities of Kennestone Hospital and of the hospital on the main campus of Georgia Institute of Technology are available for the use of Southern Tech students who require temporary hospitalization. This hospitalization or emergency care is not covered by the medical fee.

Covered service does not apply to the following: x-rays, major surgery, elective surgery, specialist's care, orthopedic appliances, special laboratory examinations, special nurses, medications, hospitalization in cases of the more serious contagious diseases, or ill students who need hospital care. In these instances the student, his or her parent or guardian, is responsible for such added expenses. The student should check with the Dean of Student Affairs or the Counselor if he or she has any questions.

B. Southern Tech does have a student Hospital and Major Medical Expense plan available. This plan is available at any time for the Southern Tech student, but he or she must pay the total amount of the plan prorated by the quarter he or she enters to the end of the year. A brochure explaining the plan in detail is available from the Dean of Student Affairs Office. Benefits from the medical plan are in addition to those of any plan the student already possesses.

C. The Southern Technical Institute Student Hospital and Major Medical Plan is required for all international students.

XVI. 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.

XVII. General Student Activities

A. Participation

1. In order to be eligible for participation in extracurricular activities, a student must be enrolled in a degree program in good standing and carrying a schedule of at least six credit hours. (In addition, he or she must meet any further requirements stipulated by the Student Activities Committee.)
2. Co-op students will be allowed to participate in all extracurricular activities if the student pays the Student Activity Fee for the quarter in which he or she is on the work quarter.

B. Social Functions

All student organizations must take written application to and receive permission from the Office of the Dean of Student Affairs to hold a social function. Such requests must be submitted one week (7 days) before the date of the activity. This permission must be received before making any agreement in connection with the function.

C. Student Organizations

1. Any group of students desiring to form an organization on the campus of the 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 Student Affairs. Periodic reports as requested by the Office of the Dean of Student Affairs 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 the 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. 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 a night-school student taking at least 6 hours with the approval of the Dean of Student Affairs.
2. A list of all new students who are to be initiated must be registered with the Dean of Student Affairs Office 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.

E. 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 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 Student Affairs. Participating as a student manager or assistant manager is counted as participation within the meaning of this rule.

All regulations previously adopted are hereby superseded.

XVIII. 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 constituted 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 the clearance of such invitations through the Dean of Student Affairs Office 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 Institute Faculty

LAWRENCE S. AFT, M.S.I.E. (University of Illinois); P.E. (Georgia); *Associate Professor, Industrial Engineering Technology*

NELS A. ANDERSON, B.S. (Kansas State University); Reg. Arch. (Kansas); *Assistant Professor, Architectural Engineering Technology*

JAMES W. BANNERMAN, M.S. (Florida Institute of Technology); P.E. (Georgia); *Department Head and Associate Professor, Industrial Engineering Technology*

DAVID M. BENNETT, B.C.E. (Georgia Institute of Technology); P.E. (Georgia); *Associate Professor, Civil Engineering Technology*

DOUGLAS S. BLACK, J.D. (Woodrow Wilson College of Law); *Associate Professor, Industrial Engineering Technology*

MARION E. BLAIR, A.B. (Maryville College); *Associate Professor, English*

JOHN L. BOSHER, M.B.A. (Georgia State University); *Associate Professor, Mechanical Engineering Technology*

WALTER E. BURTON, JR., M.S. (Georgia Institute of Technology); *Associate Professor, Electrical Engineering Technology*

WALTER O. CARLSON, Ph.D. (University of Minnesota); P.E. (Minnesota); *Professor, Mechanical Engineering, Georgia Institute of Technology, Executive Director/Dean of Southern Technical Institute*

THOMAS H. CARMICHAEL, M.S.I.E. (Georgia Institute of Technology); *Associate Professor, Industrial Engineering Technology*

ROBERT C. CARTER, B.E.E. (Georgia Institute of Technology); P.E. (Georgia); *Professor, Electrical Engineering Technology*

RICHARD L. CASTELLUCIS, Ed.D. (Oklahoma State University); *Assistant Professor, Electrical Engineering Technology*

BOBBY R. CLINE, B.B.A. (Georgia State University); *Instructor, In-Plant Training Industrial Education Department*

CLIFFORD W. COWAN, M.S.E.E. (Georgia Institute of Technology); *Associate Professor, Electrical Engineering Technology*

LAWRENCE G. CUBA, M.A. (University of Minnesota); *Associate Professor, Mechanical Engineering Technology*

DANNY C. DALTON, B.S. (Oklahoma State University); *Instructor, Fire-Science Technology*

EDWARD F. DARBY, M.S. (Georgia Institute of Technology); P.E. (Georgia); *Associate Professor, Mechanical Engineering Technology*

CARLOS C. DAVIS, M.A. (University of Georgia); *Assistant Professor, Physics*

HERBERT ELLER, M.B.A. (Georgia State University); *Associate Professor, Industrial Engineering Technology*

JAMES G. FAUSETT, B.S. Arch. (Auburn University); A.I.A. Reg. Arch. (Georgia); *Associate Professor, Architectural Engineering Technology*

ROBERT J. FISCHER, Ph.D. (University of Georgia); *Department Head of English and Social Studies, Professor, Social Studies*

ROBERT A. FOLEY, JR., M.L.S. (Western Michigan University); *Serials Librarian*

PATRICIA S. FRANKLIN, J.D. (John Marshall Law School); *Associate Professor, Industrial Engineering Technology*

CHARLES R. FREEMAN, M.S. (Stout State University); *Associate Professor, Mechanical Engineering Technology*

ALBERT C. FUNG, Ph.D. (Louisiana State University); *Assistant Professor, Chemistry and Physics*

ROBERTA D. GATES, M.A.T. (Georgia State University); *Associate Professor, English*

JAMES P. GOODWIN, JR., M.S.N.E. (Georgia Institute of Technology); *Associate Professor, Electrical Engineering Technolgoy*

MARY C. GUNN, Reg. Arch. (Georgia); *Lecturer, Architectural Engineering Technology*

GILLIAN P. HADDLE, M.A. (Pennsylvania State University); *Associate Professor, Mathematics*

LAWRENCE T. HADDOCK, M.B.A. (University of Tennessee); *Associate Professor, Apparel and Textile Engineering Technology*

KATHLEEN A. HALL, M.S. (Clemson University); *Assistant Professor, Mathematics*

JAMES W. HARDWICK, B.C.S. (University of Georgia; Atlanta Division); *Lecturer, Mathematics*

EDWARD B. HARRIS, JR., M.A.T. (University of the South); *Assistant Professor, Mathematics*

ROBERT W. HAYS, M.Ed. (Emory University); *Professor, English and Social Studies*

CLARENCE M. HEAD, Ph.D. (University of Georgia); P.E. (Georgia); *Associate Professor, Mathematics*

WALTER B. HINTON, JR., M.A. (University of Georgia); *Associate Professor, English*

CHARLES T. HOLLADAY, B.S. (Tennessee Technological University); P.E. & R.L.S. (Georgia); *Department Head and Professor, Civil Engineering Technology*

DAVID E. HORNBECK, M.S. (Vanderbilt University); *Assistant Professor, Civil Engineering Technology*

ALFRED J. HUNKIN, M.A. (University of Connecticut); C.L.U. (Georgia); *Associate Professor, English*

JAMES L. KEEN, III, M.D.S. (Georgia State University); *Associate Professor, Industrial Engineering Technology*

JOHN L. KEOWN, M.S.N.E. (Georgia Institute of Technology); *Professor, Electrical Engineering Technology*

ROBERT S. KRAMER, M.S.E. (Cornell University); P.E. (Colorado); *Assistant Professor, Civil Engineering Technology*

JULIAN R. LEE, M.S.N.E. (Georgia Institute of Technology); *Assistant Professor, Physics*

LAURENCE J. LOGUE, Ph.D. (University of Florida); *Assistant Professor, Physics*

HOYT L. McCLURE, M.S. (Georgia Institute of Technology); *Professor, Industrial Engineering Technology; Associate Executive Director*

JAMES W. McKAY, JR., M.B.A. (Georgia State University); Reg. Arch. (Georgia); *Assistant Professor, Architectural Engineering Technology*

GEORGE S. MELVIN, B.S. (Georgia Institute of Technology); Reg. Arch. (Georgia); *Associate Professor, Architectural Engineering Technology*

EDWARD J. MULLER, M.A.E. (University of Georgia); *Professor, Architectural Engineering Technology*

JOHN R. MURPHY, B.S. (Georgia Institute of Technology); *Assistant Professor, Mechanical Engineering Technology*

ROBERT L. MYATT, B.C.E. (North Carolina State University); P.E. & R.L.S. (Georgia); *Department Head, Architectural Engineering Technology and Professor, Civil Engineering Technology*

RANAKUMAR NADELLA, Ph.D. (Andhra University); *Associate Professor, Physics and Chemistry*

JOHN G. NEVITT, M.S. (Georgia Institute of Technology); *Associate Professor, Civil Engineering Technology*

WILLIAM S. NEWMAN, III, M.C.P. (Georgia Institute of Technology); *Professor, Architectural Engineering Technology*

MICHAEL R. ORLANDELLA, M.S. (Michigan State University); *Assistant Professor, Civil Engineering Technology*

EARL T. OXFORD, M.Ed. (Mississippi State University); *Associate Professor, Chemistry and Physics*

DAN M. PARKER, M.S. (California Institute of Technology); *Assistant Professor, Mechanical Engineering Technology*

JOHN W. PATTILLO, M.Ln. (Emory University); *Director of Library and Librarian-Professor*

WARREN F. PENNEY, B.A. Arch. (Georgia Institute of Technology); Reg. Arch. (Georgia); *Assistant Professor, Architectural Engineering Technology*

MARY B. ROUNTREE, M.S. (Indiana State University); *Assistant Professor, Special Studies*

AMOS ST. GERMAIN, Ph.D. (University of Iowa); *Assistant Professor, English and Social Studies*

HARRY M. SCHENK, M.S. (Case Western Reserve University); *Professor, Chemistry and Physics*

NANCY C. SHOFNER, M.Ln. (Emory University); *Assistant Director of Library and Librarian-Assistant Professor*

GERHARD W. SCHULZ, M.S. (Massachusetts Institute of Technology); *Assistant Professor, Civil Engineering Technology*

BEN C. SPARKS, M.S. (Pennsylvania State University); P.E. (Tennessee); *Associate Professor, Mechanical Engineering Technology*

CHARLES A. STEVENS, Ph.D. (Worcester Polytechnic Institute); P.E. (Missouri); *Associate Academic Dean and Associate Professor, Mechanical Engineering Technology*

ERNEST R. STONE, M.Ed. (University of Georgia); *Associate Professor, Mathematics*

SIMON A. STRICKLEN, JR., Ph.D. (Emory University); *Associate Professor, Mathematics*

JOSEPH P. SULLIVAN, B.S. (University of Maryland); *Instructor, Fire Science Technology*

DAVID E. SUMMERS, M.S.N.E. (Georgia Institute of Technology); *Department Head and Professor, Electrical Engineering Technology*

MILTON E. SWEIGERT, B. Arch. (Georgia Institute of Technology); A.I.A. Reg. Arch. (Georgia); *Assistant Professor, Architectural Engineering Technology*

JOHN E. TARPLEY, JR., B.S.E.E. (University of New Mexico); *Instructor, Electrical Engineering Technology*

FRANK C. TAYLOR, JR., Ph.D. (University of North Carolina); *Associate Professor, Physics*

WALTER THOMAS, JR., M.S. (Georgia Institute of Technology); *Assistant Professor, Apparel and Textile Engineering Technology*

PAUL E. TIPPENS, M.S. (University of Georgia); *Department Head and Associate Professor, Special Studies*
DONALD C. TRITSCHLER, M.S. (University of Tennessee); *Assistant Professor, Industrial Engineering Technology*
HANS A. TROEMEL, B.S. (Oglethorpe University); *Assistant Professor, Civil Engineering Technology*
LEE M. TUCKER, JR., Ph.D. (University of Tennessee); *Associate Professor, Physics*
JOHN S. TUMLIN, JR., Ph.D. (Emory University); *Associate Professor, English*
JOHN W. VAN HOY, M.S. (Texas A&M); *Associate Professor, Civil Engineering Technology*
SANFORD M. WIENER, B.S. (Georgia Institute of Technology); *Assistant Professor, Mathematics*
JACQUE L. WILLIAMS, M.S. (Georgia Institute of Technology); P.E. (Georgia); *Assistant Professor, Civil Engineering Technology*
YARDY T. WILLIAMS, M.S.E. (University of Florida); *Professor, Electrical Engineering Technology*
JULIAN A. WILSON, JR., M.B.A. (Georgia State University); *Assistant Professor, Electrical Engineering Technology*
CHARLES A. WIMBERLY, M.S.I.M. (Georgia Institute of Technology); N.S.P.E. Cert. Eng. Tech.; *Associate Professor, Industrial Engineering Technology*
PAUL WOJNOWIAK, B.S. (University of Illinois); *Instructor, Electrical Engineering Technology*
LEWIS N. WYNNE, M.A. (University of Georgia); *Associate Professor, Social Studies*
EARLE B. YOUNG, M.S. (Georgia Institute of Technology); M.S. (Georgia State University); *Assistant Professor, Industrial Engineering Technology*
RONALD C. YOUNG, M.Ed. (University of North Florida); *Assistant Professor, Apparel and Textile Engineering Technology*
RALPH P. YOUNGBLOOD, M.S. (University of Tennessee); P.E. (Georgia); Cert. Sr. Eng. Tech.; *Professor, Mathematics*

Emeriti

LOY Y. BRYANT, M.A. (University of North Carolina); *Registrar Emeritus*
GEORGE L. CARROLL, M.Ed. (Emory University); *Professor Emeritus of English and Dean Emeritus of Basic Studies*
LAWRENCE V. JOHNSON, M.S. (Ohio State University); *Dean Emeritus, Southern Technical Institute*
JOSEPH E. LOCKWOOD, M.A. (Oglethorpe University); *Professor Emeritus, Mechanical Engineering Technology*
CYRUS V. MADDOX, A.B. (Mercer University); *Dean of Students Emeritus*
CHESTER R. ORVOLD, B.S. (Stout State University); Registered Landscape Architect (Georgia); *Head and Professor Emeritus, Architectural Engineering Technology*

LEONARD H. TAYLOR, M.S.M.E. (Georgia Institute of Technology); P.E. (Georgia); *Head and Professor Emeritus, Mechanical Engineering Technology*

WILTON W. VAUGHN, B. Arch. (Georgia Institute of Technology); P.E. (Georgia); *Professor Emeritus, Architectural Engineering Technology*

Staff Personnel

MINNIS AGEE, JR., *Director, Physical Plant Department*
VERNIA FUGLAAR, *Accountant, Business Office*
DONALD L. GREENE, *Personnel Assistant*
DAN A. GUSTAFSON, *Computer Operations Supervisor*
BARBARA G. HAIRE, *Registered Nurse*
GEORGE L. HERNDON, *Manager, Bookstore*
BILLY D. HOWARD, *Chief of Police*
JOSEPH J. LAPRISE, *Accountant*
CHARLES W. LUMSDEN, *Administrative Specialist, Student Affairs*
WILLIE McMICHEN, *Assistant Cafeteria Manager*
GEORGE L. PERIDES, *Administrative Specialist, Student Affairs*
CHARLES TAAFEE, *Electronics Technician*

Clerical Staff

BARBARA ANDERSON, *Secretary, Mechanical Engineering Technology Department*
MILDRED BROYLES, *Clerk, Bookstore*
LOUISE BURRIS, *Accounting Clerk, Business Office*
WILLENE CARRIER, *Library Assistant*
JOAN CARTER, *Library Assistant*
DOROTHY T. COCHRAN, *Secretary, Financial Aid-Veterans Affairs*
ANNE COUCH, *Secretary, English and Social Studies Departments*
MARTHA CRAIG, *Secretary, Chemistry and Physics Departments*
EMOGENE ELLIOTT, *Secretary, Associate Dean-Academic*
ANN ENGLAND, *Secretary, Civil Engineering Technology Department*
ELOISE FOWLER, *Secretary, Associate Executive Director*
JANICE A. HEATON, *Secretary, Public Safety Office*
BETTY HILTON, *P.B.X. Operator*
HELEN HOLTON, *Clerk-Typist, Registrar's Office*
BENNIE SUE HOULK, *Keypunch Operator, Computer Center*
VIVIAN HOWARD, *Secretary, Placement Office*
PAM KENT, *Secretary, Alumni Office*
ERNESTINE KIRKMAN, *Secretary, Director of Admissions and Registrar*
PAMELA A. LENOIR, *Secretary, Industrial Training*
NANCY MADDOX, *Secretary, Mathematics Department*
DIANA P. MARLIN, *Clerk, Admissions Office*
BETTY MARINCE, *Secretary, Personnel*
DORIS MEADOWS, *Library Assistant*
MARY L. MOSS, *Accounting Clerk, Business Office*
PAMELA R. NUNLEY, *Clerk, Physical Plant Department*
SARAH F. REECE, *Clerk, Registrar's Office*
JO ANN RICE, *Secretary, Electrical Engineering Technology Department*
LOUISE SHOEMAKER, *Mail Clerk, Post Office*
JANET K. TARWATER, *Secretary, Student Center*
BARBARA TILLEY, *Secretary, Executive Director/Dean*
JOYCE S. TIPPENS, *Secretary, Industrial Engineering Technology*
JOSEPHINE TROUPE, *Secretary, Physical Plant Department*

CHARLES L. VAUGHN, *Programmer, Computer Center*
ROSALYN M. VAUGHN, *Secretary, Continuing Education*
MARY ANNA VICKERS, *Secretary, Architectural Engineering Technology Department*
ANNE WESTLAKE, *Secretary, Dean of Student Affairs*

Index

E

F

G

H

I

J

L

M

N

O

P

Q

R

S


Lady

1977

JANUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1978

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Southern Technical Institute
Marietta, Georgia 30060