Tech Students Fight for Survival

It takes something special to survive academically and otherwise at Georgia Tech. Some people are lucky and are born with an innate ability to cope with the frustrations and academic pressures of this school. The rest of us must muddle through with what little native talent we have. This generally means a lot of hard studying for decent grades and plenty of hard work for money to pay the bills. No doubt everyone, at one time or another, has passed up a concert, a wild party, or some other exciting form of entertainment to study for a test or finish a lab report. While we are enrolled in this school, Ma Tech acts as an evil stepmother, and only the ones with a desire to survive will ever graduate. Surely a school with such characteristics would drive people away, but, on the contrary, there are plenty of high school and transfer students eager to enroll, eager to put themselves through the special tortures found only at Georgia Tech. Due to a fierce desire for success, and the disdain for the rigors one must endure to succeed, the relationship between Georgia Tech and her students can only be described as a love hate relationship. Complaints about the amount of homework, tedious labs, boring lectures, and late night classes are common. No matter what the hardship, everyone puts up with it, expanding our intellects and bringing ourselves closer to that cherished scroll of parchment, the diploma.
Ironically, many of these hated rituals are what constitute Georgia Tech's hallowed traditions and are responsible for her fine academic reputation. Given the choice, most students wouldn't have it any other way, and alumni will say that they are grateful for all of the obstacles. A good reputation is beneficial, but oh what a price the students must pay to survive and benefit from it. As hard as it appears, a person needs only some basic intelligence, a little perseverance, a sense of humor to laugh at oneself and a lot of guts to successfully make it through Georgia Tech.
Research Dollars Surpass Total Regents’ Allotment

Research activities have grown more rapidly than any other segment of Georgia Tech programs. This year, over 1400 projects in the colleges and in the Engineering Experiment Station will be supported by federal, state and local governments, industry and various trade groups at a level of 31.5 million dollars. Research income was greater than the Board of Regents’ allocation to Georgia Tech from their state appropriation.

As an institution of higher learning, Georgia Tech aims to develop the intellectual “cutting edge” of its students by hiring top notch faculty and provide an atmosphere for research and further study that addresses the creative intellect as well as the realistic capabilities of the students. At Tech, knowledge discovery and problem solving go hand in hand.

Students were participating in research projects as diverse in nature as solar energy thermal processes, digital signal processing, the development of anti-tumor agents from plants, alternative energy systems for housing designs, and earth resources management and planning with remote sensing. Research funds brought these students in contact with the newest and best technology, facilities and methods. Students had a good opportunity to get real-life experience before graduation through the close ties Tech maintains with Georgia industry. On the state level, Georgia Tech’s mission is one of aid to developing industry, and many industrial plants have been built because of the technology, manpower and raw materials available to them.

Georgia Tech has the second largest engineering research program in the United States of the more than 200 universities that offer engineering degrees. This has helped Tech gain a national reputation for research accomplishments. Examples of international interest in research at Georgia Tech included a visit by Vice Premier Fang Yi of the Peoples Republic of China in February for a tour of Tech’s research facilities and began discussions for the exchange of information. Tech projects were the first solar energy demonstration programs for building heating and cooling in Kuwait and Saudi Arabia. Tech researchers also served in the solar energy development program for the new joint United States/ Saudi Arabian Commission on Solar Energy.
Hallelujah!! Graduation day finally dawned. After endless quarters of blood, sweat and toil, it was hard to see this day's arrival with eyes that have studied too long. In quest of an acceptable grade point average, many a sleepless night and wasted weekend were spent finishing lab reports and homework assignments. Grades? Who cared about grades during that final quarter. Freedom from Ma Tech was all that mattered.

With a career in business and industry, the military or graduate school waiting in the wings, it was difficult to contain the anxiousness and exuberance connected with graduation. Even with all of this excitement, there is always the sadness of parting at graduation. New careers will take most friends miles away, and it may be many years before a reunion can be arranged. But no matter how far the distance or how much time has past, the memories of Tech will always remain.

No doubt the future holds many problems, problems which will not have answers in the back of the book. Previous Tech graduates have met the challenge and have given Georgia Tech an excellent worldwide reputation. This year's graduates should be no different and do honor to Tech with their performance while taking the world by storm. Georgia Tech seems to impart a special spirit to her graduates to face the world unflinchingly. This spirit was hard-earned but that made it all the more precious.
GRADUATION! The Dream Finally Becomes a Reality
I do not recall whether, as an undergraduate, I was aware of the alumni. A few were politically noticeable, a few conspicuously rich, but alumni as a category didn't seem to have much to do with me.

But you will soon be alumni, and you should look forward to this new status as a lifelong extension of your association with Georgia Tech. You have been intensively involved in your life at Georgia Tech. So have others before you. Your shared experience will provide the basis for lasting friendships and new associations.

Tech has an exceptional "family" of alumni, all of whom keep in touch with Tech through TECH TOPICS, and many of whom gather periodically in some sixty clubs, from San Francisco to San Juan, Miami to Chicago.

For those of you finishing Tech this year, graduation is not a farewell but a new chapter starting. Many of you have more years remaining at Tech. Use them well — they will be the foundation of a long career as Georgia Tech alumni.
Administration Provides Progressive Leadership

PRESIDENT'S STAFF

ABOVE, SEATED: Clyde Robbins, Vice President, Planning; James E. Dull, Dean of Students; Gene M. Nordby, Vice President, Business and Finance; Walter O. Carlson, Dean and Executive Director of Southern Tech. STANDING: Richard Fuller, Assistant to the President; Thomas E. Stelson, Vice President, Research; Ethel J. Baker, Assistant to the Vice President, Academics; F. C. Auman, Director of Campus Safety; John P. Culver, Vice President, Development and Public Relations; Doug Weaver, Athletic Director.

DEAN OF STUDENTS' STAFF

RIGHT, FRONT: James A. Strickland, Director, Student Counseling Center; John A. Wilhelm, Director, Student Health Services; Roger Wherle, Director, Student Center; Gary Schwarzmueller, Director of Housing; James E. Dull, Dean of Students. REAR: Jerry D. Gallups, Assistant Dean of Students, Fraternity Affairs; Edwin P. Kohler, Associate Dean of Students; W. Miller Templeton, International Student Advisor; Judith E. Pridy, Assistant Dean of Students, Women.
DEANS OF COLLEGES

School and Department Directors
Research activities at Georgia Tech's Engineering Experiment Station continue to grow with over 900 people now comprising the regular and supplementary staff. The station is housed in several on-campus and off-campus locations including the C&S Bank Tower, Cobb County, and eight area offices around the state. EES, growing at a rate of nearly 30% per year, now has an annual research volume of about $20 million. It is an integral part of Georgia Tech, reporting directly to the Vice-President for Research.

Students constitute over 25% of the staff. EES is the largest employer of Tech co-ops along with a growing number of graduate research assistants and the usual compliment of undergraduate student help.

Most EES activities are client-oriented with a primary focus on applied research. Areas of current involvement at EES include: energy, economic development, computer applications, electronics, systems analysis as well as the physical, chemical and material sciences. EES also has a diversity of sponsors — federal, state and local government agencies, business and industrial firms — in its important mission to carry out investigations in engineering, science and economic development as it serves the community, the state and the nation in our technologically changing times.

During this past year, research studies included: testing of high temperature solar energy receivers, wood energy applications, waste utilization, radar applications in defense preparedness, in weather, and in pest insect behavior. Additional research dealt with heart pacemakers, assistance to the handicapped, aid to motorists in trouble on Georgia's highways, expansion of international programs, technical assistance to various industries including poultry and textiles and continued perseverance in environmental and resources problems.
Georgia Tech began a Department of Architecture in 1908, only 20 years after the Institute’s opening. This makes the present day College of Architecture at Tech one of the oldest such programs in the country. The Southeast enjoys a fine tradition in architecture, and this is partially attributable to the development of the school at Georgia Tech. The tradition that the school has established is continuing, as evidenced by the successes of Tech students in last year’s national architectural student competitions. Though entering only four such competitions, Tech students garnered three first prize awards, one second prize, one third prize and two honorable mentions.

A portion of the EE parking lot has been appropriated for construction of the desperately needed addition to the Architecture Building. The addition will finally bring all architecture students together, half of whom have been continually shuttled to various locations across campus.

Expansion of learning opportunities and program content has also occurred; for example, the College’s fourth year architecture program in Paris and the Summer Session program in London begun in the summer of 1978 for graduate students in architecture and planning. Research efforts by faculty are increasing steadily, with positive spinoffs for instruction. New courses and unusual projects available to students resulted from this research. A study done by the Southern Region Education Board has shown clearly that Tech leads all other architectural schools in the Southeast in research efforts. Current efforts are toward reorientation and redirection of all four of the College’s programs to form a large, diverse program in environmental disciplines. Each program has undergone a major review, and new directions are being set, to build upon past traditions and to reinforce the College’s position as one of the best of its kind.
Enrollment in the College of Engineering totaled almost 7,000 students during the fall of 1978, which is a record. Recognition of the special qualities of Tech faculty members has also been demonstrated through their leadership in many professional organizations. During the past five years, Tech engineering faculty members have held the presidencies of several such organizations, while others have received several prestigious awards for their technical competence.

The Tech engineering sponsored research program has reached over $8,000,000 in support from outside agencies. Researchers here are recognized as world leaders in many fields and this leadership has its benefits to undergraduate students. For example, in the field of solar energy the Tech SCORE (Student Competition on Relevant Engineering) team captured first prize nationally in the Solar Thermal Division.

FROM LEFT TO RIGHT, TOP: ESM research done with a microscope. Ken Morgan creates a sand casting. Mark Hammer in an AE lab. BOTTOM: A textile machine is checked out before use. Deflection readings taken during an AE lab. A model city is tested in the AE wind tunnel.
Research Focused on Modern Social Problems

The aerospace engineering faculty at Georgia Tech provided outstanding educational opportunities in both graduate and undergraduate programs. Large amounts of time were made available for counseling of concerned students.

Research sponsored by outside sources was at an all time high in aerospace disciplines and modern society problems. These current research problems included solar energy, noise, biomedical, and fire safety.

America's present leadership in air transportation vehicles and up-to-date military competence requires highly trained engineers. These areas also provide many promised job opportunities. Currently, the demand for aerospace engineering graduates is more than the present supply, as the industry recovered in 1978 from its previous slump.
Small Classes Mean Personal Attention

Ceramic engineering encompasses the manufacture and application of non-metallic products made from mineral raw materials. Since large amounts of energy are used in these manufacturing processes, today's ceramic engineer must be keenly aware of energy conservation as well as being a specialist in the area of materials science and technology.

Teaching emphasis in the Ceramic Engineering Department is on basic engineering and high temperature processes. The small size of the department allows for personal attention and small classes.

Research done by the department on oxide-metal in-situ composites and their applications in electronic devices as field emitters of electrons is world renowned. Research was also conducted on improved refractory materials, innovative methods of conserving energy and improving energy utilization in Georgia's ceramic industry.

*TOP, LEFT TO RIGHT:* Student examines hot object through protective glasses. Flow measurement performed by students in ChE transport lab. *BOTTOM, LEFT TO RIGHT:* Two students flirt with danger in chemistry lab. Inquisitive ceramic engineers are fascinated by the results of a slag test. Mark Beshears doing research.
CHEMICAL ENGINEERING

New Director Faced With Search for Quality Faculty

Enrollment in the Chemical Engineering Department has dramatically increased; in the past four years the enrollment has almost tripled. This increased required additional high quality faculty. As the new department director, Dr. Gary Poehlein was charged with finding new personnel while maintaining the department's high standards. Tech's chemical engineering graduates are respected across the nation and progress is needed to maintain this position.

Along with upgrading the undergraduate labs, the graduate program was expanded. Chemical engineers are high on the priority list of recruiters in the energy conservation field and new students will be recruited to fill this demand.
Georgia Tech has the largest industrial and systems engineering school in the nation with a strong graduate and undergraduate program. Plans for the future are based upon retaining the School's national reputation.

Improvements in the school included a proposed computer controlled materials handling laboratory. Future studies will deal with computers used in data acquisitions and handling. The graduate program was also expanded, which will help the undergraduates by keeping them abreast of the latest knowledge and achievements in their field.

Due to their background in math and problem solving, opportunities for employment are numerous for I.Sy.E. graduates. There is an annual demand for 10,000 graduates while only 1,800 students are graduated across the nation. I.Sy.E. graduates find a wide range of opportunity in engineering, consulting, and administration.
Energy Conservation Emphasized

Research funds within the School of Civil Engineering grew by a 280% factor over the previous year's budget. Research is continuing in construction, structures and waste treatment with special attention being given to energy conservation and the environment.

The School offers Engineering Graphics for all engineering students and a four year curriculum which leads to a Bachelor of Civil Engineering that will enable graduates to enter professional practice. At the present time, one is able to choose a broad field of specialization from a list of ten areas ranging from construction to water resources planning and management. Besides offering a Master of Science in Civil Engineering, an M.S. in Sanitary Engineering is also available.

TOP, FROM LEFT TO RIGHT: Computer work in the IE Department. An important industrial engineering point is made. Bridge about to be destroyed in a CE experiment. Work in CE lab. BOTTOM, FROM LEFT TO RIGHT: Students in an exciting IE class. Delicate measurements need to be made in civil engineering.
In the fall quarter of 1978, student enrollment in the School of Electrical Engineering rose to an all-time high. Minimal standards of performance in the first two electrical engineering courses were approved. Beginning summer quarter 1978, students who failed to meet these standards were not allowed to continue in electrical engineering.

Two undergraduate electives were introduced, one in fiber optics and one in electroacoustics. At the graduate level, courses were formalized in the digital signal processing and several courses on special topics such as, integrated circuit fabrication, advanced microprogramming, indefinite dimensional systems, and several others.

Dollar volume of research rose to an all-time high. For the first time extramural income surpassed two million dollars; this was a first for an academic unit on campus. This represents a twenty-fold increase over the last eight years. Among the new research facilities began this year were the National Science Foundation funded Electromagnetics Research Laboratory and the Research Model Shop. A graphics area was also developed which includes drafting tables, light tables, a slide making facility and an IBM composer.
Innovation Gains School National Recognition

The School of Health Systems gained nationwide recognition for its programs in the field of health systems, which includes analysis, design and improvement of health care services and the cost of those services. Graduates of the B.S.H.S. and M.S.H.S. programs are greatly needed by health agencies and various other health related organizations.

Students may choose either an analysis or planning option in the B.S.H.S. curriculum, which continued to be a popular pre-medical or pre-dental program. All students conduct a field training project as a requirement for graduation.

In 1977, the health systems academic program was accorded school status within the College of Engineering, and the B.S. degree became the designated B.S.H.S. degree in winter quarter, 1979.

The school's research programs, conducted by its Health Systems Research Center, included research in rural emergency services and the evaluation of curricula in health systems planning.
In order to fulfill the needs of students and society, the Nuclear Engineering Department has been expanding their programs. A new Health Physics program was recently begun, and a B.S. in this subject is now offered as well as the Bachelors in Nuclear Engineering degree.

Research is being done in several critical areas such as biomedical applications and plasma stability with a major thrust in nuclear fusion and waste management. The needs of the utilities who will eventually use nuclear fusion are being considered with respect to the plasma physics of the system. It is essential to establish the critical areas that need research in the overall systems so that work can be done simultaneously on overcoming the various obstacles.

In the field of waste management, the migration of radioactive particles through soil is being studied. Knowledge in this area is essential to be able to safely store nuclear waste.

TOP. FROM LEFT TO RIGHT: Work on top of Tech's nuclear reactor. Student checking the area for radioactivity. Dr. Vito doing ESM research. BOTTOM. FROM LEFT TO RIGHT: Removal of a "hot" sample from the reactor. More ESM research.
Georgia Tech has one of the largest engineering science and mechanics departments in the nation. All engineering departments on campus require at least one E.S.M. course and many insist on more than one. Engineering science and mechanics graduates generally work in the same areas as other engineering majors, however, their background is deeper in the more scientific and technical areas such as stress, failure, and finite element analysis.

The department is doing detailed work in the area of computational methods in mechanics involving the use of computers. Studies are also expanding in the growing field of bioengineering.
MECHANICAL ENGINEERING

Diverse Offerings
Play Vital Role

The School of Mechanical Engineering offers the widest curriculum of all departments at Georgia Tech. Specific areas of study encompass the four broad but interrelated areas of thermal sciences, dynamics and controls, materials and manufacturing, and systems and design. This curriculum, due to its breadth and flexibility, continues to play a vital role in engineering education and also affords its graduates many and varied employment opportunities. When the ME graduate leaves campus, a career may be started in such diverse fields as marketing and sales, research and design, or manufacturing and maintenance.

Currently, the department has ongoing research into various problems including lubrication, solar energy conversion, and computer controlled machine tools.
The enrollment of the School of Textile Engineering increased, and the school’s lab facilities were significantly updated during the past year. Research funds permitted the purchase of instruments for the chemical analysis of polymers. Several processing machines utilizing the latest technology were contributed by industry.

Research involvement continued to expand. A process developed by the school has been successfully installed in a plant; it involves re-use of the dye bath in textile wet bath processing, and provides significant savings in water, energy, and chemicals. Computer software to decrease fabric waste in apparel manufacturing also has been developed and was being widely utilized by the industry.

Changes in the textile industry provided interesting career opportunities for textile graduates, with the number of job opportunities exceeding the number of graduates.
New Dean Establishes Task Force

Dr. Charles E. Gearing, an alumnus of Georgia Tech, became the new Dean of the College of Industrial Management this past year. One of the first steps taken by the new dean was the organization of a task force to study alternatives for the future of the College. Upon completion of their study the task force will recommend a single program of development defining the direction of the I.M. College until the end of the next decade. Suggestions for alternatives will come from students, faculty and alumni. There are four major constituencies within the College: undergraduate students, master's level or graduate students, doctoral candidate and research programs, and continuing education. Whatever direction the task force decides upon, these four groups will remain, however the relative emphasis on each may differ.

TOP, FAR RIGHT: Professor Etheridge lectures to finance class.
The Department of Mathematics now serves more than 6000 students. To help handle the growing number of freshmen, the department switched to a system of three lectures and two recitation sessions for many freshman level courses. Other changes included a room in the Skiles Building being remodeled as a lounge where students can gather and interact. Microprocessors were purchased and will be used in various classrooms to demonstrate such things as surface functions. A new program using computer terminals to tutor students in algebra and trigonometry was also established.

TOP, LEFT TO RIGHT: Dr. Cain uses a big stick in his classes. Use of hunt and peck method on CRT at computer center. Debugging of computer programs. BOTTOM, LEFT TO RIGHT: Solutions to computer problems require reams of scrap paper. Watching over CYBER from control room.
The School of Information and Computer Science is the largest of all the schools in the College of Science and Liberal Studies. Enrollment increased by 27% over the previous academic year and to meet this demand, ten new CRT computer terminals were purchased for the sole use of I.C.S. students. In addition, the computing power of the I.C.S. laboratory was increased significantly with the purchase of a second PRIME 400 Computer System. The I.C.S. research program, designed to include active student participation, was also increased with a major thrust in the study of fully distributed processing systems including decentralized control, interprocess communication, task distribution, portability by means of abstract machines, development of an appropriate abstract-based programming language, and theory with emphasis on modeling, and analysis of algorithms.
The School of Biology specializes in topics such as biophysics, ecology, genetics, physiology and microbiology. Surprisingly enough a full range of oceanography courses are offered during the summer at Skidaway Island.

The school's enrollment has been increasing and has reached seventeen graduate and 190 undergraduate students. Even with these increases, the school initiated a major recruitment program which featured seminars by professors throughout the Southeast promoting graduate studies. Although an M.S. is now offered, the school has petitioned for a Ph.D. degree.

Research is also a major part of the school, with current interest in the following areas: the ecological characteristics of coastal plain rivers, the relationship between carcinogenic agents and those that produce gene mutations, and an exciting project that was attempting to create a single method of curing all types of cancer instead of the variety of techniques used today.
PHYSICS

Department Seeks Graduate Students

Professor David Finkelstein replaced Dr. James Stevenson as director of the Physics Department in January of 1979. Faculty members enthusiastically continued their efforts to achieve an outstanding environment for undergraduate education. The department's recognition in graduate education and research continued to grow, and their efforts have become more aggressive in the recruitment of graduate students.

Areas of interest in physics are constantly shifting as the demands of industry seize upon new developments. Currently, the fields of biophysics and optics are growing in demand by industry and, therefore, students.
The Chemistry Department experienced a 55% increase in research money from outside sources. One of the major projects resulting from this increase is the development of a computer controlled mass spectrometer. The Center for Disease Control is one of the organizations that is interested in this new instrument. Another major project involves a group of technicians traveling around the Southeast; these technicians repair various instruments for colleges that cannot afford such services. The department also sports an impressive organic chemistry faculty and has had an increase in undergraduate students in this area. Physical improvements in the department include the rejuvenation of laboratories and plans to renovate several classrooms in the Lyman Hall Building.
GEOPHYSICAL SCIENCES

Course Initiated on Atmosphere

At Georgia Tech, the School of Geophysical Sciences is interested in the study of both the physics and chemistry of the earth as well as its atmosphere and waters. Present areas of specialization range from geophysics and geochemistry to mineralogy and sedimentology to marine geology. A program in atmospheric sciences was also recently developed and includes studies in many current problems such as atmospheric aerosol, remote sensing of atmospheric motions and constituents, and the meteorological aspects of solar and wind energy. Oceanography research and study is carried out with the cooperation of the staff of the Skidway Institute at Savannah, Georgia.

FROM LEFT TO RIGHT, TOP: Dr. Grovenstein lecturing in Lyman Hall Building. A model of the Blake Plateau is studied. Instruments can often give confusing readings. BOTTOM: Students in a chemistry lab. Divine intervention is asked for in this chemistry lab. The border between Georgia and South Carolina is pointed out.
SOCIAL SCIENCES

Department Bags $105,000 Grant

The Social Science Department is responsible for teaching Tech students political science, philosophy of science and technology, history and sociology. The traditional curriculum was expanded beyond the courses required by the Board of Regents. In addition to the new variety of courses, a graduate program in Science, Technology and Policy was developed. These programs were designed to respond to the interests and needs of Tech students and will produce more well-rounded graduates.

Although this is a service department, it received a private foundation grant for $105,000; this grant has enabled most of the faculty to continue their research into the interdisciplinary relationship between technology and culture in the broadest sense. In addition to the research done by faculty members, two international journals are edited in the department.

TOP, LEFT TO RIGHT: A historical point is made by Dr. McMath. Bird learning to make decisions in a psychology experiment. BOTTOM, LEFT TO RIGHT: Students pondering a social science test. A political science test upsets one of Dr. Havick's students. Dr. Marr contemplating statistics from an experiment.
Curricula offered by the School of Psychology differs radically from the psychology programs in other colleges. The Georgia Tech psychology program requires students to enroll for a sequence of courses which permit in depth study of fundamentals in the field as a base for the study of applications. The program also includes intensive education in mathematics, statistics and the biological and physical sciences.

Additions to the school include a new course planned by Dr. T. L. Maple, which features a six week expedition in West Africa to study comparative psychology in the field. The dormitory counselor training course, originated by the Housing Office, is now being sponsored by the school.
Swann Building Renovated; Electronic Lab Installed

Due to a shift in interest, the curriculum in the Modern Language Department will be modified. There will be a decline in German and Russian and an increase in Spanish, French and English as a Foreign Language. The curriculum will be expanded by offering Arabic, Chinese, Italian and Japanese.

The Modern Language Department is housed in the Swann and Savant Buildings. During the fall, the Swann Building was remodeled and a new electronic language lab was installed; the lab accommodates sixty students, each with an individual lesson. Even with the new facilities, the department still finds itself cramped. Since 1976 the faculty has nearly doubled, but the teaching space has not followed suit. A Minor Certificate is now offered for those students who finish eighteen credit hours of French, German, Spanish or linguistics.
The English Department offers a wide variety of courses. These courses range from literature to public speaking to remedial help to business writing. The emphasis has shifted from the 'frills' courses back to the 'basic' courses. For the Tech student who is past the 'basics' but is not interested in the 'frills', the English Department offers a Certificate in Business Writing. This requires passing five courses in Public Speaking and Business Writing. For those who need the 'basics' Professors O'Brien and Naugle have volunteered to hold several tutoring sessions prior to the Regents' Exam. In addition to these sessions, a course in remedial English and a language lab have been constructed specifically to get people through the exam. The Regents' exam has been administered for the past eight years and this is the first year that the English Department has worked directly to increase the passing rate.

TOP, LEFT TO RIGHT: Students attempt to improve international relations. English student engrossed in his studies. BOTTOM, LEFT TO RIGHT: Foreign student displays coy smile. Oral presentation highlights modern language class. Students display enthusiasm in Freshman English. Professor's lecture captures the attention of students.
MUSIC

More Credited Courses Acquired

The most visible segment of the Music Department is the Marching Band. Once the football season is over, they convert to a pep band playing at basketball games and a concert band playing serious music. The chorale made many campus appearances this year and appeared with the Atlanta Symphony in February. A growing area of interest in the department is the Jazz Ensemble. There are now twelve credited courses in each of the above organizations, and the second and third year of the chorale is acceptable for humanities credit. Practices and classes are generally held late in the afternoon avoiding conflict with major courses.

TOP, LEFT TO RIGHT: Marching band performing at halftime of a football game. Students loosening up before class. Dangerous maneuver on the parallel bars. BOTTOM, LEFT TO RIGHT: Jazz ensemble shows skin at the Toga fest. Racing against the clock in the pool.
PHYSICAL EDUCATION

Construction Begins on Outdoor Facilities

The Department of Physical Education and Recreation remains dedicated to the goals of assisting students in gaining health and fitness concepts and of providing services in the Callaway Student Athletic Complex. This year efforts have been concentrated on the evaluation and improvement of course offerings and operation of intramural and recreational programs. The development of a human performance laboratory will allow the department to initiate scientifically based fitness evaluations and health screening programs. From this new courses will be implemented providing research capabilities in physiology, exercise and related areas. The construction of athletic fields, a jogging track and various other facilities marked the beginning of the outdoor phase of SAC-70.
All ROTC Units Experience Growth

MILITARY SCIENCE

The Army ROTC detachment at Georgia Tech went through several changes, which resulted in an increase in enthusiasm within the unit. A major change was the arrival of Col. Wayne B. Davis as the new commanding officer. Enrollment in the unit increased 44% during 1977-78, and an indication of the quality of these students was reflected in the fact that their SAT score average was higher than the West Point average. Georgia Tech enrolled more ROTC scholarship winners per capita than any other school in the south.

Though the unit is not very visible on campus, events such as the Perspective Building Series provided a forum for candid exposure of issues and people that are of major interest. National attention was focused on this event when Gen. John Singlaub criticized President Carter's position on several issues during a question and answer period. His strong comments on troop strength in Korea, the Neutron Bomb, and the SALT talks during this session led to his early retirement.

BELOW LEFT: One of many questions from the audience during one of the Army's Perspective Building Series sessions. BELOW: Army ROTC repelling at the Student Center. RIGHT: Chief of Naval Operations, Admiral Thomas B. Hayward, warns against Soviet naval threat. BELOW RIGHT: Navy ROTC midshipmen during drill session. BELOW, FAR RIGHT: Air Force ROTC cadets in formation.
AIR FORCE

An overall enrollment increase of 30% in the AFROTC detachment resulted from an extensive recruiting efforts by staff and cadets coupled with numerous extracurricular activities and scholarship opportunities. The total enrollment has increased 70% during the past two years. A visit to Warner Robins AFB to see the USAF Aerial Demonstration Team, the Thunderbirds, and a facilities tour of the Huntsville Space Flight Center were highlights of the year. The annual Dining Out and participation in Homecoming activities were also enjoyed by members and guests of AFROTC. Scholarship opportunities and benefits were enjoyed by 67% of the students enrolled. The AFROTC detachment at Georgia Tech ranks number two in the nation in the number of four year scholarship students and total scholarship students enrolled.

NAVAL SCIENCE

Over the last year Tech’s NROTC unit has enjoyed continued expansion. With the addition of 98 freshmen in the fall of 1978, the Battalion grew to over 250 midshipmen. Captain G. M. Henson reported in September as the new commanding officer of the Tech unit. The third largest NROTC unit in the country, Tech attracts record numbers of NROTC scholarship recipients. Georgia Tech has also remained a leader among NROTC schools in the number of newly commissioned officers selected for the demanding Nuclear Power Program. During the past year, in addition to classes and drill, the Battalion has been active in Homecoming festivities, aviation and marine indoctrination trips, a Navy Ball, all intramural sports, many parades including Mardi Gras, and an annual picnic.
ANAK
HIGHEST SENIOR HONORARY

ANAK, founded in 1908, is unique to Georgia Tech and membership in the society is the highest honor a student can attain while in school. Only junior and seniors who have made outstanding contributions to Tech are considered for selection. Members are chosen on the basis of leadership, personal achievement and strong character.

Joseph E. Davidson
Deborah I. Friedman
Nancy F. Lazarus
Patrise M. Perkins
Lon N. Pringle
David A. Vogel

NOT PICTURED: Wm. Mark Beshears, Bruce Wittschiebe

Omicron Delta Kappa
NATIONAL LEADERSHIP HONORARY

The Alpha Eta Circle of Omicron Delta Kappa was founded at Georgia Tech on May 28, 1930 and membership in this society signifies exemplary academic achievement along with leadership abilities during one’s years at Georgia Tech. Only juniors and seniors with at least a 2.8 GPA who have distinguished themselves by leadership in college activities are eligible.

Mark Beshears
Dr. James Bynum
Rick Colaianni
Todd Cutler
Joe Davidson
Pete Decker
Rob Farrell
Warren Flack
Debbie Friedman
Lisa Gareis
James Grosch
Mike Hammar
Dr. James Herod
Fred Hubert
Rob Kempinski
Bob Kipp
Nancy Lazarus
Dr. William Lnenicka
Noelle Marier
Dr. Paul Mayer
Jim McEachron
Chris McGahey
Dr. Robert McMath
John Nestor
Dr. Joseph Pentecost
Patrise Perkins
Lon Pringle
Rich Robbins
Marie Russell
Vicky Siebermorgen
Dr. James Stevenson
Cheryl Stovall
Rick Toole
Dave Vogel
Dr. John White
Dr. James Young
Phi Kappa Phi

SENIOR SCHOLASTIC HONORARY

The twelfth chapter in the nation of Phi Kappa Phi was established at Georgia Tech in 1914. Recognition and encouragement of superior scholarship in all academic subjects is the purpose of this honor society. Academic achievement and good character are the basis for membership along with the candidates being in the top ten percent of their class.

Julia M. Adkins
Frederick C. Anderson
Enrique E. A. Balan
Richard D. Barksdale
Mary Jane Bizub
Lisa J. Blendermann
Roger E. Blythe, Jr.
Stephen D. Bolten
David L. Booker
Nanette E. Bordeaux
Ker Boyce
William D. Breedlove
Barry J. Brown
Phillip L. Brown
Catherine J. Brunner
Terrence J. Cannon
David P. Carlton
Christopher L. Carville
Reid W. Castrodale
Sharon R. Cluteur
Caren Carson Cobb
David T. Coleman, III
Daniel W. Coulstock
Carter W. Cooper
Peter F. Covell
Daniel H. Craft
Diana G. Crosswhite
Robert G. Crouch
Steven A. Curtis
Todd G. Cutler
Joseph E. Davidson, III
Peter H. Decher
 Jesse C. Dobson
Kenneth A. Domeshek
David W. Draper
Charles E. Dunn
Robert W. Elder

H. Stephen Estes
David B. Etzkorn
David W. Faasse
Kendall T. Faulk
Virginia I. Foard
Lance S. Galvin
Ann Michele Gaylord
Robert M. Gemmell
Jaime Gilinski
Ronald E. Goins
Jose I. Gonzalez
Sandra A. Gould
David A. Gremse
James T. Grosch
Michael J. Hadsell
Christopher J. Hall
James A. Hancock, III
James F. Hanson, Jr.
Marsha A. Hartman
William D. Hassell
Robert S. Hasty
Cathy P. Hayth
Erik M. Hendrickson
Lisa B. Hibbard
James R. Hilley, Jr.
Mary Beth Hinson
Lynne C. Hoatson
Holly C. Hollinger
Anne M. Houghtby
Richard W. Hove
Elizabeth S. Jarnagin
Harold T. Johnson
Lynne E. Johnson
James Blake Jones
Shih-Ping Kao
John C. Karas
Taiwhan D. Kim

Robert J. Kipp, Jr.
John A. Koegler, Jr.
Ivey B. Laminack
William F. Lang, III
Richard A. Luettich, Jr.
Geoffrey L. Main
Mark W. Majette
Gary B. Martens
Alfred M. Martin
Armand A. Masse
Calvin A. McCullough
James A. McKenzie
David H. Meacham
Edward T. Beree
Ralph B. Merck
Gerald L. Moody, Jr.
Jonathan C. Morris
Jorge A. Motto
Michael R. Moye
James A. Musser
James F. Nalley
Peter A. Natsios
Randolph C. Nicklas
Benjamin J. Novak
Eric M. Olson
Philip A. Opsal
James S. Osborn
Carol D. Parham
James S. Patton
Eladio Pereira
Robert A. Pierotti
Rickey L. Pitchford
Lorena E. Pledger
Scott R. Preston
John R. Proctor
James L. Propp

Charles Pruszynski
Ansley E. Ray
Raymond T. Roberts
Jaime F. Roman, Jr.
James B. Rowland, Jr.
Jonathan M. Rutland
Mark S. Sanchez
Gary E. Sanders
Theresa A. Sheehan
Laura S. Short
John W. Shriver, III
David C. Silkiner
Patricia S. Simmons
Duke N. Sims, Jr.
Cindy E. Smith
James P. Smith
Scott M. Sopher
Mark A. Sorenson
Elba M. Sosa
Ruth L. Sowell
Walter H. Stamper, III
Michael E. Stanley
Thomas W. Stevens
Scott D. Stever
Daniel M. Sullivan
LuAnn Taylor
James S. Tomlin
William R. Toole
Rodney L. Trytko
Wendell A. Turner
Karen E. Vaughan
Ronald A. Veith
Thomas M. Ward, III
J. Ben Wauford
Clive M. Webster
Jean Whitener
Engineering students who show superior scholarship and leadership as well as integrity and breadth of interest inside and outside of engineering are recognized by Tau Beta Pi. Undergraduate students who rank in the top eighth of their junior class or the top fifth of their senior class are considered for membership.
PHI ETA SIGMA
FRESHMAN SCHOLASTIC HONORARY

Superior scholastic achievement among college freshmen is recognized through the honorary society of PhiEtaSigma. Founded in 1923 and chartered at Tech in 1930, the society rewards freshmen academic excellence. All students who attain a 3.5 GPA or better during their first freshman quarter or by the end of their freshman year are eligible to join.

Michael J. Alessandro
Michael R. Alexander
Scott Anderson
Mitchell J. Arias
Steven J. Babb
Barbara E. Dallas
Brian R. Barber
Carter K. Barnett
H. J. Barnhardt, III
Jeffrey L. Bates
Andrew C. Beers
Richard A. Belden
David R. Benator
Harry Benkel
Robert B. Bennett
Harold L. Benton
Steven K. Boeckler
James K. Bouressa
Joseph F. Bourgat
Thomas M. Boyd
William H. Boyd
Thomas A. Brackmann
Douglas K. Bransford
John E. Brennan
Timothy S. Brockie
Kenneth M. Brooks, Jr.
Russell W. Buchanan
Chester R. Burroughs
Kevin L. Butts
Mark S. Byers
Andrew E. Caldwell
Terence I. Caldwell
Martha J. Campbell
Cathryn M. Carter
Sara L. Carswell
Wade E. Carter
Daniel L. Castagno
Robert S. Caverhill
Wayne K. Chase
James D. Clarke
Katrine A. Clymer
Karen L. Collins
Carlton A. Coto
Richard L. Craft
Rena L. Cresman
Jeffrey P. Crittenden
Michael G. Croteau
James A. Crumkleton
Kenneth R. Dean
Diane C. DeNagel
Mitchell B. Diamond
Hal D. Dobbs, III
James M. Dorsey
Viraj J. Doshi
Thane B. Doss
Mark F. Dowd
Sharon A. Echoles
Margaret G. Edmiston
T. J. Ehrensperger
Kevin L. Ehresman
Stephen A. Fordham
Katherine A. Fuelling
Robert A. Gault
Gary F. Guenters
Lisbeth R. Gibson
Wayne C. Glasgow
Karen P. Glaize
Sheila T. Gorman
Scot A. Greenlee
C. A. Grimmell
Kari G. Hagans
Robert L. Halsey, III
Deborah L. Hammond
Andrew S. Harper
James R. Harrell
Arthur L. Haun
David L. Hendershot
Marie E. Hill
Eric R. Hinger
Charla Hollscheidner
Barbara J. Hubbard
David J. Hunnlford
Robert K. Hunt
Eric R. Immel
Patricia J. Inglis
David M. Jackson
Ronald K. Jackson
John A. Jay
Mark A. Johnson
Thomas M. Jordan
Martin S. Kariovic
Vincent L. Kegel
Mark R. Kennedy
Cecelia A. Kilpatrick
James P. King
John E. Kirby
Kenneth D. Knight
Saratovsk B. Kurchatova
Randolph J. Kular
Kimberlee A. Kull
Maurice H. Kuypers
Brian L. Lander
William M. Landers
William R. Langham
George H. Latta, III
Teresa D. Lewis
Scott A. Little
Jill E. Lloyd
Charles Londa
Charles R. Long
Paul A. Lopez
Timothy J. Louie
Phella D. Ludwig
Paul E. Lund
Philip J. Lunsford, II
Eric A. Lukin
John S. Markward, Jr.
Juan R. Martinez
Anthony B. McCarthy
Kyle G. McDonald
Duncan E. McGehee
William J. McNicol
Kathy A. Miller
William M. Mizell
Hugh C. Moore
Rance E. Murray
Albert J. Musciano, III
Susan L. Myers

Ton A. Ngo
Terry A. Nipper
Brian C. Noble
Enrique A. Oriolac
Thomas C. Parham, Jr.
Robert G. Pearse
John H. Peay, Jr.
Michael S. Perry
Mark D. Phair
Gary A. Pilgrim
Harold J. Plourde
Robert C. Rameschel
Herschel H. Reese
Andrew H. Register
Donald E. Revett, Jr.
James R. Riggle
David H. Ritter
Jorge J. Rivera
Edward M. Rogers
Marc S. Rogovin
Eugenia M. Ryan
Donald S. Sanders
Steven C. Sanders
Mark S. Schultz
Walter J. Sedlazeck
David H. Semmes
Joanna K. Shreve
Holly B. Shulman
Albert L. Sly
John A. Sparks
John F. Spiller
Robert P. Sprenk
Douglas R. Squires, Jr.
John M. Staak
Eric Steinhausner
Ronald R. Stoff
Linda Sullivan
Nicolas P. Syropoulos
Carol-Ann Szpitalak
Hon W. Tam
Thomas L. Thompson
Kirk S. Thornburg
Paula M. Thornton
Lisa K. Tischendorf
Peter C. Tomassich
Kevin R. Valenzen
Michael A. Vance
Cynthia D. Vitale
Grace L. Viesis
Lynnman Ward
Hugh J. Wellington
George T. Wells
Rebecca B. White
Harry L. Wiederspan
Charles G. Wier
Bobbie S. Wile
Mark N. Williams
Jonathan C. Wilson
Joseph M. Wilson
Walker C. Wilson, Jr.
Paul J. Wolff
Michael J. Yohan
Susan M. Zedella
Michael S. Zomakos
Briaerean Society

CO-OP SCHOLASTIC HONORARY

Founded at Georgia Tech on July 16, 1922, the oldest co-operative honorary society in existence recognizes the scholastic achievements of students in the co-operative program. To be elected to the Briaerean Society, a student must have at least a 3.0 GPA and have completed five quarters of academic study in the Cooporative Department.

Michael M. Abadie
Judy Adams
William Adams
Richard Adams
Mark E. Atherton
William L. Ayres
Robert L. Balter
Richard J. Barcori
John R. Battler
Walter Berry
Richard W. Beard
Eric C. Berkozin
William Black
Lisa J. Blendemann
Karim Bennett
Byron A. Brasheux
Mary Bondino
W. David Breedlove
John Broderick
Gary Brown
Wesley Bryan
David Buffalo
Alan R. Burgess
Edwin Carlso
Ralph Carter
Reid Caseboly
Charles Chapman
Patsy Chipman
David Coleman, III
Daniel Colestock
Thomas Collins
William Connell
Mark Corcoran
Gregory Corcoran
James Couzelis
Bruce M. Cummins
Joseph Davidson
Jesse Dobson
Irene G. Dorris
David Dukes
Richard Edwards
Joseph Emberger
James Etherton
David Etzkorn
Shawna Dunleary
Melvin Ferebee
Carol Fleischman
Eugene Feckler
James Fortune
Paul Franklin
James Frawley
Galen Freemson
Robert Friedman
Robert Gammell
Albert Gray
Gregory Green
James Grosch
Doug Guilory
Clyde Gumbert
Michael Hadsell
James Hancock
Penny Harrell
Brenda Harrison
Jason Harry
John Hartka
Joseph Hassink
Kenneth Hawkins
G. Murry Hays
Richard Helkowski
Lisa Hibbard
Mary Beth Hinson
William Hitch
Scott Hoening
Douglas Hornaday
David Hubbard
Keith Huking
Joe Humphrey
Gordon Hyatt
Jim Jaklitsch
Tommi Joe
David Johnson
Rick Johnson
William Jones
Michael Kaplan
John Karas
Vince Kegel
Glenn Kenny
Ralph Keyser
Robert Kipp
David Kirsh
John Koegler
Peter Kransnoff
William Krepos
John W. Kuney
Scott Laible
David Lange
Julie Lange
Donna Lange
Jeffrey Lantz
James Latimer
Timothy Libert
Marty Linz
Robin Ann Little

Lamont Lockwood
Brenda Long
Clay Loyless
Bill Lunsford
James Maddox
Joseph Maddox
Armand Masse
James Matthews
William Matthews
Christopher Matza
Peter McCann
Susan McGuffin
James McKenzie
John McLellan
Doug McMillan
Robert Menger
Robert Merkel
Lynn Merrill
Melanie Meyer
Richard Miller
Isaac Moore
Mark Morgan
James Morrison
Deborah Murphy
John Nestor
Steve Nichols
John Notling
Brian Nutt
Bernard Oles
John O'Rourke
Nancy O'Rourke
Patrick O'Rourke
Henry Owen
Paul Pashkovich
Richard Pettus
Linda Podger
Mary Jo Preti
Stephen Pupielarz
Edwin Quillian
Robert Rabun
John Rahaim
Mark Randolph
Chip Reeves
Robert Rice
Laurenne Riddle
James Rothrock
David Rucinski
Richard Sachien
Alexander Schepps
Edward Schepps
Gladstore Sellers

David Sellinger
Paul Semmes
Daniel Shaw
Mikayla Deff
Doug Simpson
Duke Sims
Stephen Soileau
Ronald Sorrells
Jean Souza
Daniel Sparks
John Stanley
Wayne Stanford
Robert Stann
Maryhelen Stevenson
David Stewart
Denise Stokes
Carolyn Stroop
Michael Szpak
David Talley
Richard Tankersley
Douglas Taylor
Walter Thain
Terry Tibbitts
Raymond Tidman
Joel Timberlake
Kathryn Townsend
John Tumbling
Gary Turbell
George Van Dolterm
Meeks Vaughan
Samuel Venable
Frank Wagner
George Walker
Michael Walker
Alan Warren
John Watson
Mark Weaver
Tim White
Bob Whitehead
Brian Whitmore
Arthur Wiggins
Tony Wilkey
David Williams
Frank Williams
C. J. Williamson
Michael Williamson
Douglas Wilson
Janet Wolf
James Wolford
Harry Woznitski
Bert Yetter
Order of Omega

FRATERNITY HONORARY

The Order of Omega honors exceptional leadership in IFC activities. Junior and senior fraternity members are judged on outstanding scholarship as well as leadership qualities.

Carl Baxter  Guy Long
Patricia Benton  Noelle Marier
Keith Bridgham  Matt McKenna
Steve Cole  Will McKnight
Helen Crawford  Mike Miller
Teena Dobbs  Chellie Murray
Randi Friedman  Bill Propp
Gil Garrison  Kevin Renshaw
Kelli Hennessey  John Rittlemeyer
Emily Ho  J. D. Snodgrass
Ginger Hoffman  Ron Veith
Margaret Hutchinson  Dorsey Ware
Karen Jones  Roger Wigham
John Karras  Sandy Winnefield
Ric Ladt  Bruce Wittschiebe

Who’s Who Among Students in American Colleges and Universities

Since 1934, Who’s Who Among Students in American Colleges and Universities has been providing national recognition to outstanding campus leaders. Nominees are judged on academic standing, community service and leadership in extracurricular activities by a committee of administrators, faculty and students. Candidates must be college juniors, senior or graduate students.

Sandra Adamson  Debra Hall  Laura Miller
Julia Adkins  Kenneth Hall  Michael Miller
Steven Benz  Kenneth Hamilton  Daniel Murphy
Ralph Carter, Jr.  Kathy Hammonds  Ansley Ray
Carol Chandler  James Hansley, Jr.  Aaron Rickles
Sheilah Clayton  Michael Hassell  James Roberson
Harold Clemmons, Jr.  Alfreda Helton  Douglas Ross
William Crane, Jr.  Carol Hickson  Marie Russell
Todd Cutler  Thomas Hiles  Charles Simmons
Joseph Davidson, III  Mary Beth Hinson  Neal Stubblefield
Peter Decher  Ginger Hoffman  William Toole
John Dupuy  Charles James  Ronako Veith
James Elliot, Jr.  Kristopher Kuck  David Vogel
Warren Flack  Nancy Lazarus  Amy Wepking
Randi Friedman  James McEachron  Bruce Wittschiebe
James Grosch  Matthew McKenna