Tech in Top TEN

The Georgia Institute of Technology is one of the top ten engineering schools in the nation. It is because of her traditions, the quality of her faculty, and the quality of her students that Tech has managed to achieve and maintain this reputation.

The traditions: Tech is an old institution. It was opened in 1888 as the Georgia School of Technology and was basically a trade school. In the last 90 years, the traditions which make Tech unique have developed. From the Ramblin' Reck to George P. Burdell, Georgia Tech is one helluva school.

The faculty: Tech's faculty improves steadily in quality. Professors have come to Tech from many other educational institutions such as Harvard, MIT, Cornell, University of California, and Yale. This year President Pettit raised the application requirements for faculty members.

The students: They are what make a university. The students at Tech seem to constantly become more intelligent. When high school seniors can come to Tech on the early admissions program and successfully complete honors calculus and conduct research in organic chemistry, the competition must definitely be getting tougher.
Studying:
For Fun or the 4.0?
There are thousands of positions and techniques for studying. There are those who lay on the bed or floor to study, so that they can relax in the process — or so they say. They are probably secretly hoping to fall asleep so they won't have to study. Then, of course, there are the nerds who study constantly, even while walking, standing, leaning, eating and just plain sitting. But, the most popular position is seated, in some way, shape, or form. Some sit in large soft chairs with their feet propped up. Others sit Indian style, in all sorts of places. Some may even be found their dorm room chairs, hunched over their desks. Some get tired of sitting and looking at books, so they attempt to utilize osmosis while sleeping with their head on or near their book. It seems that everyone has his or her own private position to take up while studying; just as everyone has his or her own method of studying.

The actual reasons for studying often seem obscure to many Tech students. It is certainly not popular because of a lack of anything better to do! Possible explanations might include expansion of the horizons of knowledge and sheer enjoyment, but most students wouldn't accept such a theory. No, the real reasons for studying are the immediate quarter's grades, the overall GPA, and ultimately the attainment of a Georgia Tech diploma!
Dr. Pettit Encourages Learning

In the pages that follow you will find a sampling of Tech’s educational activities, its leaders in teaching, in research and in academic administration. Working together we at Georgia Tech constitute one of the nation’s strong institutions in our fields of study.

What kind of institution are we, in our contemporary society? Some would say, an institution of higher education; I would say, an institution of higher learning. The common bond between teaching and research, between faculty and students, is learning.

Obviously, you have been taught important knowledge and skills. Competence in our professional fields has no substitute. But truly, nothing has been taught unless you have learned it.

Learning can go on without formal teaching, indeed it must continue after you graduate. I hope you have contemplated how you learn best, that you have improved your capability for self-directed learning, and most of all that your desire to learn has been enhanced during your time at Georgia Tech.

Joseph M. Pettit
President
Vice-Presidents and Deans of Colleges
TOP, LEFT TO RIGHT: Henry Valk, Dean of the College of Sciences and Liberal Studies. Vernon Crawford, Vice President for Academic Affairs. William Sangster, Dean of the Engineering College. BOTTOM, LEFT TO RIGHT: Clyde Robbins, Vice President for Campus Planning. Richard Fuller, Assistant to the President. William L. Fash, Dean of the Architecture College.
Deans of Students
TOP, LEFT TO RIGHT: Judith Priddy, Assistant Dean of Students. James E. Dull, Dean of Students. BOTTOM, LEFT TO RIGHT: Edwin Kohler, Associate Dean of Students. Jerry Gallups, Assistant Dean and Advisor to Fraternities. W. Miller Templeton, Assistant Dean and International Student Advisor.
Directors of Schools and Departments

Dr. Arnold Ducoffe
Aerospace Engineering

Dr. Joseph L. Pentecost
Ceramic Engineering

Dr. Harold E. Smalley
Health Systems

Dr. Robert N. Lehrer
I.Sy.E.

Dr. Stothe P. Kezios
Mechanical Engineering

Dr. Lynn E. Weaver
Nuclear Engineering

Dr. John W. Crenshaw
Biology

Dr. J. Aaron Bertrand
Chemistry

Karl M. Murphy
English

Dr. Charles Weaver
Geophysical Science

Capt. Gelzer L. Sims
Navy R.O.T.C.

William D. Beavers
Physical Education

Dr. James R. Stevenson
Physics
TOP: LEFT TO RIGHT: Snow filled project. Model of house to be built on the Chattahoochee. BOTTOM: LEFT TO RIGHT: Two students work on a project. Drafting.
New Directions Lessen Hassle

For the most part, students and faculty seem pleased with what they perceive as the emerging new directions for the College and its programs. This, in times more often characterized by satirical or negative reference to stress, problems, and "hassle," is good to hear.

Tech's newest College is being renewed in ways additional to 1975's change from department to college status. Some include an internal evaluation of the College's four programs, to define the optimum programs possible at Tech; substantial additions to the faculty, bringing more breadth and depth to instructional offerings; development of a research component in the College's organization; administrative reorganization of the college, with Assistant Dean and other new administrative positions; and expansion of the College's Study Abroad Program in Paris for four-year Architecture students, to include study in London for graduate students in Planning and Architecture.

A major building addition is being planned for the College; it is in the production drawings stage at this writing. The target date for occupancy of the addition is Fall 1979.

Substantial efforts are underway in the areas of program, research, organization, facilities, and service, fully to realize the great potential which the College has. In the larger sense, however, these efforts simply build upon the fine history and tradition which the School, now College, enjoys — both in its own right and as a part of Georgia Tech. There is much that we have yet to do, but continuing that tradition, and adding something of ourselves to it, is our collective intention for the College. Quality second to none is our goal; I trust that we will prove to be sufficiently relentless in its pursuit.

William L. Fash

Wm. L. Fash, Dean
Engineering College Makes Progress for the Future

Engineers in Tech’s class of 1978 have been present during some of the most dramatic developments in the history of the Institute’s College of Engineering.

Enrollment in the College totaled almost 6,400 students in the fall of 1977, which is, by far, the largest ever. Included in this number are over 800 women and 500 racial minority students, which both represent new highs and are the result of a very positive and aggressive recruitment program.

Recognition of the special qualities of George Tech faculty members has been demonstrated through their leadership in many professional organizations. During the past five years, Tech engineering faculty members have held the presidencies of the American Society for Engineering Education, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the Fiber Society Inc., and the National Institute of Ceramic Engineers. Others have worked at almost every level in their professional organizations. Still others have received several prestigious awards for their technical competence.

Recognition of the strength of Tech’s programs has extended far beyond the borders of Georgia, and, indeed, of the United States. During the past year a cooperative agreement was reached with the Kuwait Institute of Scientific Research to facilitate undergraduate and graduate study programs and to expedite cooperative research efforts. A similar agreement is being considered with the University of Riyadh in Saudi Arabia. At still another level of technology, Tech engineering faculty are working with several lesser developed countries through the orderly development of small-scale industry.

The Tech engineering sponsored research program has reached over $6,000,000 in support from outside agencies. Researchers here are recognized as world leaders in the field of solar energy and this leadership has its benefits to undergraduate students. This can be demonstrated through the fact that the Tech SCORE (Student Competition on Relevant Engineering) team captured first prize nationally in the Solar Thermal Division of that competition.

The above are but a few manifestations of the progress which the faculty and students of the College of Engineering have made and are continuing to make. Since our most important reason for existing is the education of technical people, we are pleased to extend our congratulations to the seniors and to wish continued success for those who remain.

W. M. Sangster, Dean
AEROSPACE ENGINEERING

Demand Exceeds Supply of AE’s

The demand for graduates in Aerospace Engineering is once again strong, but the supply is short. The industry which boomed in the 60’s then declined in the early and mid 70’s has now stabilized, and the demand for Aerospace Engineers is expected to exceed the supply during the next decade.

The rationale for present and future job opportunities is the necessity for maintaining our present leadership in the developments of transportation vehicles (airplanes) and the need for an up-to-date military competence.

The undergraduate and graduate programs are current in content and taught by highly qualified, full-time faculty. Sponsored research in conventional aerospace disciplines as well as in present-day societal problems (biomedical, fire safety, noise and solar energy) is at an all time high.

The faculty is dedicated to providing not only outstanding educational opportunities for students at all levels but also makes available a considerable amount of time for counseling and guidance of students.

Dr. Arnold Ducoffe, Director

TOP: A lesson in solid propellants. BOTTOM: Research in A.E.’s biomedical labs.
CERAMIC ENGINEERING

Ceramic Products

Touch Everyone

Ceramic Engineers control high temperature technology and use plentiful mineral raw materials to manufacture products which are of great value to all of us. All around us ceramic products touch our lives — brick, tile, glass, porcelain bathroom fixtures, fiberglass insulation, procelain enamel oven liners, cement for mortar and concrete, plaster, electrical insulators, electronic components! Many industrial ceramic products such as catalysts, chemical process equipment and refractories for lining high temperature furnaces, are not as visible to us, but are vital for our economy. Many of the limitations in our technology today are found in the cost or availability of suitable materials for new engineering designs. Ceramic Engineers are active in developing new products to meet these societal needs. Georgia and the southeast have abundant ceramic raw materials, and the recognition of these important resources caused the establishment of Georgia Tech Ceramic Engineering in 1923. Georgia Tech's School of Ceramic Engineering relies on its small size to create an environment where personal attention and concern can play an important role in the development of engineering skills and interpersonal relationships.

Dr. Joseph L. Pentecost, Director

ABOVE: Student analyzing strength of glass rods by use of the Instron. RIGHT: Students using the optical pyrometer to check furnace temperature. OPPOSITE PAGE: ChE's working in transport laboratory.
The Chemical Engineering School at Georgia Tech has experienced phenomenal growth during the past few years. This year alone, enrollment increased by 22%, and the school had a faster growth rate than any other school on campus. In Fall 1977, there were 749 ChE students and 22 Metallurgy students on campus and about 100 Co-op students on work duty. The increase in enrollment seemed to be primarily due to excellent job opportunities in the field.

Much interesting and practical research is done by the school. Most is government sponsored at the rate of about $400,000 per year. During 1977-78, Dr. Orr and Dr. Matteson worked together in air pollution control. Under the direction of Dr. Hochman and others, research was being conducted in alloys and field ion microscope analysis. Other studies included dental metals, medical implants for human beings using metal devices, and investigations into plastics, catalysis, and unit operations.

Faculty changes in the school during the year included the loss of Dr. Joseph Smreker and the addition of Dr. Mark White from Rice University.

Dr. G. L. Bridger, Director
The School of Civil Engineering this year had a total enrollment of over 900 students including approximately 150 graduate students. The school interviewed prospective faculty to handle the increasing teaching loads. Areas of specialization are transportation systems, water resources, structures, geotechnical and materials engineering, and sanitary/environmental engineering.

Laboratory facilities were expanded this year with the acquisition of an Interdate Computer for on line data processing of mechanical property tests, a Fourier analyzer to be used in fluid mechanics and structural vibrations studies, and a mobile traffic analysis laboratory.

Also, the bi-monthly Attitude Adjustment hour continued to be popular with students and faculty alike.

J. Edmund Fitzgerald
Director
Sponsored Research Increases

Student enrollment in the School of Electrical Engineering rose to an all-time high of 1525 students, including a record-setting 186 graduate students as recruitment of Tech undergraduates for the graduate program was intensified.

Laboratory facilities were expanded with the addition of a microprocessor design laboratory and a computer architecture laboratory. Also completed during the year was a printed circuit fabrication facility, a functional project laboratory, and a greatly expanded computer terminal room.

Sponsored research activity continued to be one of the most dynamic elements in Electrical Engineering School activity. Dollar volume of sponsored research exceeded $1,000,000 in each of the two preceding fiscal years, with trends continuing to point toward comparable current year performance. Especially noteworthy was a three-year program in signal processing and storage, funded by the Army Research Office at a level of $250,000 per annum.

A strong demand for electrical engineering graduates was highly evident, with great recruiter interest shown for persons with digital hardware/software backgrounds. Highly typical of that demand was the entrance into the EE student market by a major automobile manufacturer, whose choice of only six target schools in the United States included Georgia Tech!

Demetrius T. Paris
Director
The School of Engineering Science and Mechanics is one of the largest of its kind in the nation. In addition to providing instruction in basic courses in Mechanics for almost all students in the Engineering College, the school offers degree programs at the undergraduate and graduate levels, and the faculty is engaged in a wide range of research activities.

The academic achievements of the 85 undergraduate students in the Engineering Science curriculum are reflected in the fact that approximately 45% currently are on the Dean's List. The student chapter of the Society of Engineering Science has been very active during the year promoting increased interaction of faculty and students and articulating student opinions regarding curriculum content.

Approximately 20 graduate students are involved in the school's research activities, the majority of which are now being funded by external sources. During the year the greatest concentrations of research efforts have been in numerical analysis, continuum mechanics, failure analysis, and bioengineering in which there has been a marked increase in laboratory capabilities as a result of grants from the National Science Foundation. Undergraduate students have undertaken research projects of unusually high quality, a highlight of the year being a presentation at the Annual Conference on Engineering in Medicine and Biology by three ESM students.

M. E. Raville, Director
INDUSTRIAL ENGINEERING

Emphasis Is on Quality Teaching

The 1978 class is one of the smallest in a number of years, and the class will retain this distinction for enrollment again is increasing.

Many students have distinguished themselves in academic and extra-curricular activities. Record breaking job offers and salaries have been proffered this year by many companies around the country.

Our programs will continue with emphasis on good teaching always considered of great importance. Research and outside sponsored activities are an increasing part of the school's activities, as is emphasis on graduate programs.

Dr. R. N. Lehrer, Director

*TOP LEFT: The Bioengineering lab in ESM. BOTTOM RIGHT: IE prof. working on systems analysis.*
HEALTH SYSTEMS

Health Systems Becomes School in 1977

The School of Health Systems was established by the Regents in 1977 as an academic division of the College of Engineering, building upon a health related program activated at Georgia Tech in 1958. The School offers undergraduate and graduate health systems courses, administers programs of study for students enrolled in bachelor's and master's curricula in health systems, and coordinates health systems minors for certain students majoring in other Georgia Tech curricula. Through its Health Systems Research Center, the school also engages in interdisciplinary and interinstitutional research and community outreach programs.

During 1977-78 the School of Health Systems introduced a new “Health Planning Option” in its degree programs and completed an evaluation of its “Curricula in Health Systems” for the Bureau of Health Manpower. Also during this year the Health Systems Research Center completed an evaluation of a group reimbursement incentive project involving hospitals in Alabama, under a contract from the Social Security Administration, and a research project and conference on the use of police cars as medical aid vehicles, under a grant from the National Center for Health Services Research.

Harold Smalley, Director

TOP PICTURE: Health Systems teaching assistant demonstrating the proper techniques of resuscitation. BOTTOM, LEFT TO RIGHT: Health Systems student studying in class before a test. M.E. students conducting sonic waveform experiments.
MECHANICAL ENGINEERING

Broader Curriculum at Tech
Offered by ME Department

Mechanical Engineering has the broadest engineering curriculum and covers, in depth, the areas of energy; materials and manufacturing; systems and design; kinematics, dynamics and vibrations, including acoustics; and control systems.

Manufacturing engineering continues to have strong interest because the student gains first-hand knowledge of the basic principles of mechanical and thermal processing. Programs in computer-aided design and interactive computer graphics, and in applications of minicomputers and microprocessors continue to attract students.

Research supplements the school's graduate programs. Studies in rheology, and bearing lubrication and seals of large-scale gas turbines, receive support from government and industry.

Flammability, fire hazards and combustion studies continue to aid the national effort. A unique high-pressure, high-temperature plasma research lab is investigating the properties of gases at pressures up to 1000 atmospheres and temperatures of 25,000 degrees Kelvin. Noise propagation studies on transformers are oriented towards the development of a computer-aided design. And, special projects are continued on solar energy heating and cooling systems.

S. Peter Kezios, Director
To keep abreast with the advancement of technology and the need to develop new energy sources, the School of Nuclear Engineering embarked on the establishment of a Fusion Studies Program with the objective of providing graduate education and research in the area of fusion reactor technology. The course of study is designed to prepare graduates for careers in plasma research, technological development and fusion reactor design, as well as to give a general education in Nuclear Engineering.

The research program focuses on fusion reactor analysis and fusion reactor physics. Fusion reactor analysis has the general objectives of developing and evaluating reactor concepts and identifying and assessing required research and development. The objective of reactor physics is to develop the basis for applying the results of plasma physics research to fusion reactor design and analysis. Dr. Weston M. Stacey, Jr. was appointed Callaway Professor of Nuclear Engineering and will play a major role in carrying forth the Fusion Studies Program.

In order to meet the growing demand for health physicists in the nuclear industry, the school developed the curriculum for a program of study leading to the Bachelor of Science in Health Physics. A proposal was prepared and submitted to the Board of Regents requesting approval to offer this degree.

Lynn E. Weaver, Director
The textile/apparel industry is undergoing changes almost revolutionary in nature. New materials are being utilized, new processes and machinery introduced, and new products developed. Fibrous materials are finding use in an ever expanding range of applications. These changes are creating new opportunities for textile graduates, and necessitating a continual review of the textile engineering, textile chemistry and textile management curricula.

The funded research involvements of the faculty continue to expand, such programs include: development of carbon fiber reinforced composites for automotive applications; water, energy and chemical conservation through dye-bath reuse; computerized cut-order planning to reduce fabric waste in apparel manufacture; fiber formation from gaseous solutions of polymers; direct polymer/fiber to garment formation; use of crown ethers in anionic polymerizations; skirts and seals for surface effect vehicles; seam analysis in air supported structures.

Also, the doctoral program initiated several years ago is growing. The first student was graduated last year and several are enrolled.

W. D. Freeston, Director
The College of Industrial Management continues to be one of the most academically stimulating places on campus. Students have an opportunity to select from a variety of elective coursework in Economics, Management Science, Organizational Behavior and the functional areas of management such as Finance, Marketing, Accounting, Production, and Labor Relations.

IM's continue to prepare themselves for entry into the business world and for graduate work in Economics, Law, and Business. These students continue to be in high demand by the leading companies in the Southeast and by the best business and professional schools nation-wide.

Recent faculty attracted from Yale, Carnegie, Cornell, Berkeley, and the Big Ten schools attest to the increasing quality of IM courses and programs. These faculty and the outstanding student body of Georgia Tech combine to make the College of Industrial Management an exciting place to study. When the College finally has its own building, the College of Industrial Management will be, by any measure, one of the outstanding colleges of its type in the country.

Vernon Crawford, Acting Director
TOP: Student studying accounting. BOTTOM, LEFT TO RIGHT: Analyzing a computer program. Prof. McCarty in the classroom. Running a computer program.
Recent Growth in Liberal Studies

In the average time that most of the current students have spent at Georgia Tech, the College of Sciences and Liberal Studies has grown substantially, both in overall enrollments (20%) and in the quality of its educational offerings.

Although the College is well known for its programs in the sciences, there is no small opportunity for students to obtain a solid exposure to the humanities and social sciences; and it is within these areas that much of the recent growth has occurred.

Notably, in the past year, the Departments of English and Social Sciences have introduced Certificate Programs in such fields as technical writing, international affairs, science, technology and society, and urban studies. This means that students successfully completing prescribed programs in these elective subjects will now be officially recognized by the award of a Certificate from the College.

While students' interest in the humanities and social sciences has always been strong at Georgia Tech even with the heavy emphasis of the quantitative which characterizes the various curricula, it is expected that these new programs will encourage able undergraduates to give greater coherence to their choice of electives and thereby greater strength to their formal education.

Henry S. Valk, Dean
One of the major evolutionary changes in the School of Biology has been the development of strong broadly based research competence among the faculty. Presently, over two thirds of the faculty are carrying out research sponsored by Federal research grants or contracts.

Among the most exciting of the investigations underway is an effort by Prof. William Bale in collaboration with Dr. Edgar Grady to develop a system whereby antibodies produced in response to a malignant tumor may be attached to radioactive compounds or cancer chemotherapeutic agents and reintroduced into the cancer victim. The antibodies would be expected to carry these agents selectively to the tumor itself so that it could be effectively destroyed with minimal damage to normal tissues of the organism. One of the most important features of this approach would be its broad usefulness in treating a wide variety of localized and diffuse carcinomas, otherwise very difficult to treat.

Major excitement is also associated with Professor Jerry S. Hubbard who is associated with the experiments of the past year on Mars leading to the discovery of chemical phenomena which could be most easily explained as due to action of living organisms with unusual properties. Moreover, there was no evidence of organic chemical molecules which would have been expected had life existed at the location of the experiments. In the present year, Dr. Hubbard has concentrated upon reproducing the environment of Mars in his laboratory in an effort to explain the peculiar chemical interactions which have thus far defied simple explanation.
CHEMISTRY

Industry Needs More Ph.D.'s

Undergraduate enrollment has remained constant and graduate enrollment has experienced a significant increase — thirty graduate students entered this year compared to only seventeen entering last year. The increase in graduate enrollment probably reflects the increased demand for Ph.D. chemists by industry.

Dr. James L. Gole, formerly of M.I.T. joined the Tech faculty this year. He is a physical-inorganic chemist with interest in high-temperature chemistry. Because of the extensive use of lasers in his research, Dr. Cole's research area in the basement of Bogg's Chemistry Building has been labeled "Star Wars."

Several faculty members have received recognition for their research. Professor R. W. Fink spent three weeks in Poland on an exchange program of the National Academy of Science. Dr. Sheldon May has been named an Alfred P. Sloan Research Fellow for 1977-1979. Dr. Nai-Teng Yu is spending part of the year at the University of California, Berkeley, in connection with a five-year National Institute of Health Career Development Award.

\[\text{Signature}\]

Dr. J. Aaron Bertrand, Director

TOP: LEFT TO RIGHT: Biology lab, Organic lab. BOTTOM, LEFT TO RIGHT: Research with nematode worms, Organic lab.
PHYSICS

Grad Research Aids Undergrads

The School of Physics at Georgia Tech continues to demonstrate national leadership in the education of both majors and non-majors. Innovative courses and laboratories in physics provide an enriched curriculum unique to Georgia Tech. Graduate research accelerates the rate at which new discoveries and theories penetrate the undergraduate classroom. A new school director will hopefully provide the leadership required to bring even greater educational and research opportunities in physics to the Georgia Tech students in the future.

James R. Stevenson, Director

Within the past year the School of Geophysical Sciences has "come-of-age" and now has strong programs in all three realms of the earth — the lithosphere, hydrosphere and atmosphere. Five new faculty members were added in the area of atmospheric sciences and several additional Adjunct Professors were added to the oceanography program. Two new geophysicists were hired. The school now has excellent coverage in the fields of geophysics, geochemistry, engineering geology, atmospheric science and oceanography.

Graduate enrollment has increased to 40 and is expected to grow rapidly. The employment opportunities in the earth and atmospheric sciences are excellent and expected to get better as man continues to consume and pollute.

Charles Weaver, Director
Students Place Fourth Nationally

Undergraduate students of the recently inaugurated B.S. program of the School of Information and Computer Science are already making an impact on the national scene. In 1977, ICS students placed fourth in the first National Student Programming Contest. In preparing for the second national championship, the ICS students swept the first and second places in the Southeastern Regional Student Programming Championships, a good start for a new school.

The undergraduate ICS program continues to grow, roughly doubling each year. In conjunction with the graduate student body the school's enrollment has exceeded 550 majors. To accommodate the class, the school has augmented its computer and microprocessor labs by several new computer systems and by adding new faculty members specializing in computer languages, computer systems and networks, artificial intelligence, and theoretical computer science.

Of particular significance for the future of the school is the move to Georgia Tech of the research unit of the U.S. Army Computer Systems Command. This group, called the Army Institute for Research in Management Information and Computer Science, is a major research granting agency in the area of management information systems, and its co-location with the ICS School should bring professionally oriented students in closer contact with real work issues of this important field of their discipline.

Dr. Vladimir Slamecka, Director
The School of Mathematics was founded in 1952 to offer the Bachelor of Science degree in Mathematics. While the subject itself has always been at the center of a technological curriculum, it then became possible to offer professional training in mathematics at all three degree levels in the next few years.

The precision of mathematics has always been a useful tool in all human endeavors. Its applicability and usefulness will continue to grow at a rapid pace as new problems are faced or technology is created.

Both the curricula for our three degrees and the courses we offer have been under continuous examination over the years, to ensure that the newer ideas are transmitted to the student. No great changes are planned in the immediate future to this evolving program.

Nearly half of the current permanent faculty have come to Georgia Tech in this decade. These newer members have joined the older members in the joint efforts to improve our instruction and to keep abreast of modern mathematical developments, indeed, to join their professional colleagues in the creation of new mathematics. These trends will continue at an even greater pace with the appointment of a new director.

We salute the past heritage of this school and look forward to the future of mathematics in this technological environment.

Dr. John D. Neff, Director

OPPOSITE PAGE: Students spending countless hours and nights running computer programs.
LEFT: Close Encounters of the Integrated Kind; calculus notes.
Emphasis Is on Communications in English

The English Department has long been bound up with the Tech tradition. A generation ago, its classes were held in what is now the Administration Building, and some students had to climb (the elevator had not made its appearance) to a class held in the Tech tower. All students took six specific English courses required by the Institute and most had public speaking and technical writing required in their major.

Today the English Department offers a wealth of courses unknown then. By means of options and alternatives, it enables the student to take a range of courses comparable to that in many English departments in liberal arts colleges. Most of the teachers in the English Department have a doctor’s degree and have records of research and publication in their chosen fields.

With a growing interest on the part of industry and government in professionals who have mastered communication skills and have a well-rounded knowledge of the humanities, the English Department looks forward to serving the student body even more effectively in the future.

Karl W. Murphy, Director
MODERN LANGUAGES

Expansion Planned in Languages

The Department of Modern Languages, organized in 1904, is located in the Swann and Savant buildings adjacent to the Administration Building. The variety of our course offerings provides opportunities for achieving fluency in writing, reading, speaking, and understanding French, German, Russian, and Spanish. Some of the courses treat the technical and scientific literatures of those languages and others the histories and belleslettres literatures. A minor or certificate program has been developed in all of the major languages and in linguistics. The department also offers up to sixty weeks of intensive courses (25-30 hours per week) in English for foreign students. Upon demand, elementary instruction has been available in Chinese, Hebrew, Portuguese, Italian, and even Navajo. In conversation and composition individual attention is stressed, and essay-type examinations predominate over multiple-choice.

Most classes are small enough for each professor to know each student personally. Increased use is being made of audio-visual aids both in the classroom and in the language "laboratory." In Spanish, French, German, Russian, and English as a foreign language audio-visual aids and tests are being prepared by the faculty to meet the special needs of Georgia Tech students. Extensive renovation of the Swann Building is about to begin, and improved facilities should be available by the beginning of the fall quarter, 1978.

Louis J. Zahn, Director

ABOVE LEFT: DramaTech allows English credit for plays. BELOW RIGHT: Students in language lab.
SOCIAL SCIENCES

Minors Program Initiated

In this multidisciplinary Department we teach Sociology, Political Science, Philosophy and History. The members of our faculty are vigorous researchers and dedicated to good teaching. We try to provide the student with a balance to the hard sciences and perhaps more important, a philosophic and historical understanding of the growth and nature of the sciences. We approach our subjects not only as valuable in themselves, but also as bridges between the sciences and the less mathematically rigorous forms of human activity and thought. We believe that an educated person is at home in the world when he is at home in these disciplines.

Jon Johnston, Acting Director

The College of Sciences and Liberal Studies
of the
Georgia Institute of Technology

Confers Upon

George P. Bardell

this certificate in recognition of satisfactory achievement in completing the SOCIAL SCIENCES MINORS PROGRAM with an area specialty in

All Aspects of the Social Sciences

Certification signifies the successful completion of a minimum of fifteen hours of courses in the social sciences following a plan of study possessing thematic depth and unity

Given at Atlanta, Georgia, March 18, 1978

Signature

Program Advisor
Head, Department of Social Sciences

Dean, College of Sciences and Liberal Studies
The School of Psychology offers three rather unique undergraduate curricula leading to the Bachelor of Science degree in Psychology. All three curricula options provide opportunities for a broadly based education which prepares students for employment subsequent to graduation, for graduate work in psychology, or for advanced study in other fields, such as dentistry, law, medicine, social sciences, humanities, and business administration. Students in all options are encouraged to elect courses in subjects such as economics, literature, foreign languages, philosophy, political science and the technological areas represented by engineering and management. Two of the three options lend themselves to a special program intended to prepare students to teach behavioral science at the high school level.

The Georgia Tech undergraduate programs in psychology are predicated upon the assumption that one cannot apply what he or she does not thoroughly understand. Hence, each of the three options is intended to allow the student to obtain broad and intensive training in the fundamentals of general-experimental psychology. The exceptionally successful record of psychology graduates can be credited to this strong preparation.

Close student-faculty relationships are maintained through an effective advisor system which involves all full-time members of the faculty, each of whom serves as an advisor to a portion of the psychology student body. Through periodic joint student-faculty meetings, matters of mutual interest such as new developments, the curriculum, students needs, etc. are discussed. This atmosphere of student-faculty interaction carries over into other activities, including course work.

E. H. Loveland, Director

OPPOSITE PAGE, TOP: Dr. James Brittain conferring on the Science and Technology Journal published by the Social Sciences Department. OPPOSITE PAGE, BOTTOM: Certificate for new social science minors program. LEFT: Motor skills experiment.
Men Train for Service Careers

The Naval ROTC program has one basic purpose — to educate and train qualified young men and women for careers as commissioned officers of the Navy and Marine Corps. Most midshipmen are on full, four-year scholarships while others participate in the units' College Program. Upon graduation, each is commissioned as a line Ensign and ordered to active duty. Marine students are commissioned Second Lieutenants and ordered to active duty at the Basic School, Quantico, Virginia. Cruises aboard naval vessels are taken in the summers following the freshman and junior years; summer training ashore is conducted following the sophomore year. In addition to regular academics and training, NROTC midshipmen participate in a wide range of extra-curricular activities throughout the year including athletic and social events and programs.

Capt. Gelzer L. Sims, Director
Air Force ROTC has become an integral part of Georgia Tech and the southeast area of the United States. Enrollment is higher now than any other year since the draft ended. The Georgia Tech detachment, with facilities located in Lyman Hall, serves not only students enrolled in this school but also students attending seven other colleges and universities in the metro Atlanta area.

A recent Air Force inspector labeled our cadet training a model program. Extracurricular activities are available for anyone desiring to participate, including championship intramural sports teams, field trips to active Air Force bases and civilian industries, aircraft flights, and social functions.

Col. Gerold Mackey, Director

Army ROTC offers a wide variety of training in military skills and leadership fundamentals. Cadets prepare for commissioning through an integrated program of classroom instruction, practical exercise, and extracurricular activities. The training is supplemented by Field Training Exercises and Military Science electives in military related skills.

Ltc. Wayne B. Davis, Director

PHYSICAL EDUCATION

SAC Stimulates Growth in P.E. and Rec Departments

The primary mission of the Department of Physical Education and Recreation is to provide the setting and the professional assistance needed to enable students to develop a sensible and educated approach to physical fitness, personal health, and recreational pursuits. The range and quality of physical education courses has changed dramatically over the past five years. From a restrictive curriculum of eight courses in 1972, the department has increased the number of courses available to our students to twenty-four. Several courses offer instruction at the intermediate and advanced skill levels.

Student recreational opportunities have been greatly enhanced by the development of the Fuller E. Callaway, III Student Athletic Complex. This long awaited addition to the Tech campus has increased both the safety and enjoyment of structured and non-structured recreational events on campus. I encourage students to become familiar with the operational policies of the Complex, and to fully utilize the services and programs based in this fine building.

The intramural athletic program continues to be one of the most popular extra-curricular activities on campus with an estimated 60% of the student body participating in one or more sports each year. Sports clubs and organized recreational events received a much needed boost this past year with the addition to the staff of a full time recreation coordinator. It will be his goal to assist sports clubs in every way possible and to develop new and unique recreational activities on campus.

Bill D. Beavers, Director
Music Department Gains New Director

Although the percentage of Tech students enrolled in music courses is small, the interest ratio of those students is very high. That is to say that members of the Band, Chorale and Jazz Ensemble are deeply involved in the performance of music.

The Marching Band is the most visible element of the Music Department, through its appearances at home and out-of-town football games. The Pep Band adds excitement throughout the basketball season. The Concert Band offers more opportunity for in-depth study of music. The Chorale has continued its development as a male and female singing group, and its various programs on campus and in the area have enhanced its reputation as an outstanding representative of the Institute. The Jazz Ensemble has made rather astonishing progress this year and has begun to make a name in the community. These three performing groups represent the extent of music courses offered at present, but we hope to make some basic courses in music available in the future.

Greg Colson, Director;

BOTTOM LEFT: Fencing Class in P.E. TOP RIGHT: Pep Band.
ANAK
HIGHEST SENIOR HONORARY

ANAK was established in 1908 as the highest honor society at Georgia Tech. Student leaders who have made exceptional contributions to the school are judged on strong character and personal achievement.

John Dillard
William Dillard
Teena Dobbs
Sam Flax
Steve Krebs
Bill Propp
Randy Poliner
Hamilton Barksdale
Lucius Sanford
Sylvia Maristany
Angie Chin
Beau Armistead

Omicron Delta Kappa
NATIONAL LEADERSHIP HONORARY

Selection to Omicron Delta Kappa, one of the highest honors a student can receive during his years at Tech, signifies exemplary academic achievement as well as leadership ability in one of five areas of campus life.

Dr. James Bynum
Dr. Paul Mayer
Dr. James Young
Neil Brown
Blair Caplan
Angie Chin
Joe Davidson
William Dillard
Teena Dobbs
Robin Farrow
Warren Flack
Sam Flax

Debbie Friedman
Mike Hammer
Amie Hardman
Karen Jones
Steve Krebs
Nancy Lazarus
Sylvia Maristany
Lon Pringle
Bill Propp
Coley Schnorf
Dave Smotson
Charles Smith

Tech's Alpha Eta Circle this year continued developing an oral history of the school by interviewing those people with long experience here. Members also worked on this year's edition of the *Course Critique.*
Phi Kappa Phi

Senior Scholastic Honorary

Phi Kappa Phi was established in 1914 to honor superior scholarship in all academic subjects. Members must be in the top ten percent of their class. Good character as well as academic achievement is a basis for membership.

Thomas A. Akin
Patricia M. Armington
James E. Arnold
Albert W. Bailey, Jr.
C. E. Barrett, III
Kenneth J. Bell
John S. Bender
Bryant D. Blansil
Jennifer A. Bloomer
James H. Bohannon
Lester M. Bradshaw, Jr.
Charles H. Branch, Jr.
Troy E. Brantley
Steven D. Brooks
Neil T. Brown
Blair C. Caplan
John O. Carruth
Timothy Castro, Jr.
Mark D. Devane
Teena L. Dobbs
Nancy C. Edinger
Holly A. Elmendorf
Robin E. Farrow
Manuel F. Fernandez
Bette M. Finn
Joel F. Finley
Warren Wade Flack
Samuel A. Flax
Daniel H. Forsyth, Jr.
Charles D. Fortenbach
Otto C. Fountain, Jr.
James F. Gibbs
Alfred C. Grimes
Guy C. Griswold
Jeffrey J. Haefele
Michael H. Hammer
Charles P. Hammond, Jr.
Billie M. Hardman
Joseph C. Hensley
James E. Herndon, II
Roy M. Hirth
Janis G. Hobart
David J. Hubbard
Frederick S. Hybart, Jr.
W. James Imoehl
David L. Johnson
Michael E. Kaplan
Anthony M. Kelly
James D. Knight
Myra F. Knuff
Robert V. Kolarik
Paula J. Kotzum
Joseph W. Kovach, III
Roger A. Krone
Jeffrey A. Leddy
Randolph J. Lee
Jannelle M. Loggins
Marcella M. Lusby
David R. Malmer
Alberto Manevich
Gary W. Mankin
Robert D. McCall, Jr.
Edgar E. McCanless
James F. McEachron
Marvin C. Meeks, Jr.
Omar Melendez
Thomas A. Manger
Michael J. Napper
Stephen K. Necessary
William K. North
James F. Novatnak
Ricky W. Oakley
Kevin J. O’Connor
Nancy T. K. O’Rourke
W. James Palmer, Jr.
Toby K. Parnell
Thomas E. Parrish, Jr.
Harlan E. Pettit
Randolph R. Plaskon
William H. Preston
Edwin W. Quillan
Joseph E. Quirk, III
John E. Reaves
Margaret A. Reimer
Mickey R. Reynolds
R. R. Rivercastillo
George W. Rivers
Alan B. Robinson
Larry A. Russell
Gilberto R. Sanchez
Maria I. Santana
Christopher W. Schroeder
Joel D. Shutt
Harris S. Simon
Michael A. Skinner
Charles R. Smith, III
Jana L. Smith
Laura L. Smith
Susan A. Smith
Robert D. Smithson
Adrienne C. L. Snowden
John A. Steele
Charles M. Stone, Jr.
Edward D. Street
William M. Thompson, Jr.
Steven A. Touchton
Charles D. Travick
Charles D. Trice
Carlisle C. Trimble
Thomas P. Turner
Luet Y. Tsai
Ben L. Upchurch
Tory W. Vaughn, III
Carlos E. Vidales
Richard Walker, III
Harold B. Wilson
Donald J. Winslow
James D. Woomer
Robert H. Wright, Jr.
Hugh T. Young
William A. Zarbis
Kashani K. Zarrabi
Phi Eta Sigma

FRESHMAN SCHOLASTIC HONORARY

Phi Eta Sigma, chartered at Georgia Tech in 1930, is a national honor society which recognizes superior scholastic achievement among college freshmen. Students who attain a GPA of 3.5 or better during the first quarter of the freshman year or after the first three freshman quarters are eligible for membership.

Lucinda J. Allen
Robert F. Arnold
Marsha L. Arrendale
Kerry G. Baits
Patricia E. Becker
James C. Berg
Hector Bermudez
Roger O. Blacksell
Thomas M. Blake
Paul J. Boggs
Wayne D. Boor
Charlie R. Bourquin
Aldebaran D. Bouse
Jack M. Boyd, Jr.
Thomas G. Bradberry
Emil W. Brown
Michael E. Brown
Roger D. Buch
Stephen K. Buckingham
Gregory P. Budig
David H. Burgess
Kevin B. Burke
Kathryn L. Bustle
Susan E. Carpenter
Thomas J. Carter
James E. Cartwright, Jr.
Dwain R. Cassady
Pamela D. Chandler
Joseph M. Clarkson
David F. Conner
George V. Corbitt
John J. Crittenden
Daniel H. Darden
William G. Davis
Osvaldo M. de la Rosa
Bradley D. Delay
Lester L. Dickson
Roxanne Drago
Sean M. Drake
Douglas L. Durand
Gene M. Durrence
Sharon L. Echols
Donald G. Einig
David M. Fahey
Nancy J. Flint
Sheldon J. Fox
William A. Frame
Kelley S. Franzman
Dennis M. Frendahl
Douglas N. Fuller
Michael P. Gallagher
Guillermo Garcia
William J. Gartner
John E. Gilstrap, Jr.
Gregory W. Goodchild
Forrest W. Goodwin
Lisa B. Goyette
Raphael K. Graves, Jr.
Joseph O. Gregg
Rudolph F. Guercia
Gerald E. Guffey, II
Michael G. Guler
Gary N. Hackney
Kenneth C. Hall
Marsha R. Hanson
Norman C. Hardman, Jr.
Andrew D. Harris
Mark R. Hefner
Lily-Ann Z. Heiner
John P. Hicks
Charlie P. Hill
Rosalind E. Hill
Christopher P. Hinton
Bruce M. Hoatson
John L. Hocutt
Robert B. Holloway, Jr.
Ivan L. Howitt
Raymond A. Iacobucci
David W. Jenkins
Burt R. Jennings
James W. Jervis
Raul E. Jimenez
Calvin A. Jones
Marilyn R. Jones
Richard W. Kesler
Ann L. Knickmeyer
Grady C. Knight
Rebecca S. Knight
Norman M. Kreutter
Kevin K. Krieglke
Carolyn Y. Krog
Mark D. Langenhahn
Lynda F. Lewinski
Walter G. Lewis
Katherine A. Lindberg
Russell S. Lowery
M. Randall MacBlane
Charles R. MacDonald
Kevin S. MacDonald
Timothy M. Mann
Peter F. Martin
Benton J. Mathis, Jr.
William J. S. McElroy
Michael J. McNulty
Mark G. Miles
Elizabeth A. Miller
Jay S. Miller
Kathy A. Miller
Dacid L. Mohr
Christopher W. Moody
Jeffrey T. Moore
Peter J. Muller
Jeffery P. Murray
Roy A. Murray
Phong Duc Nguyen
Timothy J. Nooncker
Charles E. Oliver, Jr.
Tracy E. Orr
Daniel G. Osborne
William J. Ossman
Scott R. Parry
Mary Ellen Pfister
Elbert D. Porter
Toni A. Porter
William F. Propst, Jr.
William O. Putnam
Farid Raji
Lynn M. Ramsey
Roderick K. Randall
John D. Ratliff
Who's Who in American Colleges and Universities

Who's Who Among Students in American Colleges and Universities was established in 1934 to recognize outstanding student leaders. Nominees must be enrolled in a four-year institution as juniors or seniors or in graduate school. Candidates are judged on scholarship and leadership in campus and community affairs.

Neil T. Brown
Blair C. Caplan
Richard P. Colaianni
Daniel W. Colestock
David L. Cook
John H. Dillard
Jonathan P. Fite
Samuel A. Flax
Deborah I. Friedman
Bradley C. Geddes
Billie M. Hardman
Kelli A. Hennessy
Emily A. Ho
Karen A. Jones

Philip V. Keb
Robert M. Kempsinski
Stephen Krebs
Roger A. Krone
Douglas B. Neal
William J. Palmer, Jr.
Toby K. Parnell
William W. Propp
Richard C. Schnorf, Jr.
Charles R. Smith, III
Susan A. Smith
Robert D. Smithson
Robert W. Wildberger, Jr.

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.

Joe Auman
Mary Brooks
Carey Brown
Bill Cherry
David Cook
Will Crane
Jim Dodd
Dean James Dull
John Dupuy
Sam Flax
Jerry Gallups
Mike Jordan
Phil Keb

Ed Kohler
Mike Lopez
Tom Murfee
Chris Pappas
Carmen Pinette
Judith Priddy
Dede Propst
Scott Rutherford
Sue Sikora
Cathy Simmons
Scott Strickland
Miller Templeton
Jim Winters
Tau Beta Pi, founded in 1885, recognizes superior scholarship and leadership among engineering students. Undergraduates ranking in the top eighth of the junior class or the top fifth of the senior class are eligible for membership. Personal integrity and interests outside engineering are also judged.

Antonio R. Alvarez
Frederick C. Anderson
James Arnold
Kevin B. Atkinson
Henery E. Aviles
Wallace Bair
Lynwood Baird
C. E. Barrett, III
Dennis G. Bedley
Irene A. Belinfante
Robert F. Bell, Jr.
Mary J. Bizub
Daniel C. Blackmon
Lisa Blendermann
Philip A. Blusiewicz
Nanette E. Bordeaux
Charles Branch, Jr.
Barry J. Brown
Roy A. Browning
David B. Buffalo
Michael C. Camp
Terrence J. Cannon
Blair C. Caplan
David P. Carlton
Kenneth A. Carrillo
Reid W. Castrodale
John Cawthon
Cheryl L. Chastain
Mark D. Chouinard
Henry W. Clay
Sheilah M. Clayton
George J. Cokkinides
Richard P. Colaianni
Daniel W. Colestock
David L. Cook
John A. Cook
David R. Cornish
Richard G. Crow
Kathryn A. Culligan
Richard Cureton
Steven A. Curtis
Bruce J. Cutler
Todd G. Cutler

Ricky W. Dakley
Jose A. De Urioste
Peter H. Decher
Jesse C. Dobson
David W. Draper
Ellsworth Draper, Jr.
Charles E. Dunn
Mark E. Edenfield
Nancy C. Edinger
Holly A. Elmundorf
Harold S. Estes
David B. Etkorn
David W. Faasse
Robin E. Farrow
Kendall T. Faulk
Manuel F. Fernandez
Warren W. Flack
Samuel A. Flax
Susan L. Flint
Charles D. Fortenbach
Otto Fountain
James L. Frawley
Charles C. Freeny, III
William D. Gage
James F. Gibbs
Timothy B. Guffey
Michael J. Hadsell
Jeff Haeffele
Paul Hakenworth
Michael H. Hammer
James A. Hancock
Charles P. Hannon, Jr.
Billie M. Hardman
John W. Hartka
William D. Hassell
Gordon M. Hays
R. Dwight Hembree
Erik M. Hendrickson
Jack C. Hicks
Russell F. Hill
James R. Hilley
Roy M. Hirth
Lynne C. Hoatson

Nicholas W. Hollingshad
Anne M. Houghtby
Bradley G. Houk
William E. Houston
Lester D. Howell
David J. Hubbard
Paul F. Hugh-Sam
Robert A. Hunt
Frederick S. Hybart, Jr.
Steven M. Irby
Marshall J. Jackson
Richard B. Jacobs
Elizabeth S. Jarnagin
David L. Johnson
Lynne E. Johnson
Thomas E. Jones
George J. Kafetzakis
John C. Karas
David P. Kemp
Samuel B. Kemp
Michael W. Kent
Taiwhan David Kim
Robert J. Kipp
James D. Knight
Kenneth J. Knox
Robert V. Kolarik, II
Joseph W. Kovach, III
Douglas R. Kraul
Roger A. Krone
William F. Lang, III
Randolph J. Lee
Jannelle M. Loggins
Richard A. Luetlich, Jr.
Geoffrey L. Main
Mark W. Majette
Alberto Manevich
James D. Marr
Michael J. Maslaney
Kenneth G. Massett
Michael D. Matte
Robert D. McCall
Edgar E. McCanless
Janice R. McCants
Briaerean Society

CO-OP HONORARY

The Briaerean Society is the oldest cooperative honor society in existence. A student must have completed five or more quarters of academic study in the cooperative department with a 3.0 GPA.

John R. Battler
Peter H. Berzanski
Gary M. Brown
Carlton S. Budd
Kennon Carr
Ralph C. Carter, Jr.
Reid W. Castrodale
David T. Coleman, III
Daniel W. Colestock
David R. Cornish
Bruce M. Cummins
Joe E. Davidson, III
James D. Etherton
Michael F. Forbes
Robert P. Friedman
Robert B. Gardner, Jr.
William G. Garrett
Albert Wayne Gray
Joseph Paul Hassink
Gordon Murray Hays
Richard A. Helkowski
Lisa B. Hibbard
Mary Beth Hinson
Douglas F. Hornaday
Charles T. Howard
Gordon L. Hyatt, Jr.
David L. Johnson
Michael E. Kaplan
John C. Karas
Robert J. Kipp, Jr.
Steven J. Kirch
Timothy A. Libert
Robin Ann Little
Marcella M. Lusby
Walter S. McGill
James A. McKenzie
Robert A. Maddox
Robert M. Menger
James J. Morrison
John A. Nestor
Bernard S. Oles
Nancy O’Rourke
Patrick E. O’Rourke
Robert R. Rice
David Sellinger
Raymond E. Tidman
Charles D. Trawick
John E. Tumblin
Douglas K. Wilson
Modern Technology: Making Math Easier?

Engineering Procedure *From an unknown but astute source*:

"Every new engineer must learn early that it is never good
taste to designate the sum of two quantities in the form:

\[ 1 + 1 = 2 \quad (1) \]

"Anyone who has made a study of advanced mathematics
is aware that: \( 1 = \ln e \) and that: \( 1 = \sin^2 x + \cos^2 x \)

further: \[ 2 = \sum_{n=0}^{\infty} \frac{1}{2n} \]

"Therefore, Eq. (1) can be expressed more scientifically as:

\[ \ln e + (\sin^2 x + \cos^2 x) = \sum_{n=0}^{\infty} \frac{1}{2n} \quad (2) \]

"This may be further simplified by use of the relations:

\[ 1 = \cosh y \sqrt{1 - \tanh^2 y} \] and \[ e = \lim_{Z \to \infty} (1 + \frac{1}{Z})^Z \]

"Equation (2) may therefore be rewritten:

\[ \ln \left[ \lim_{Z \to \infty} \left( 1 + \frac{1}{Z} \right)^Z \right] + (\sin^2 x + \cos^2 x) = \sum_{n=0}^{\infty} \frac{\cosh y \sqrt{1 - \tanh^2 y}}{2n} \quad (3) \]

"At this point, it should be obvious that Eq. (3) is much
clearer and more easily understood than Eq. (1). Other methods
of a similar nature could be used to clarify Eq. (1) but these are easi
dily discovered once the reader grasps the underlying principles."
The backbone of Georgia Tech is mathematics. Every student must take at least one year of calculus, and each student has his or her own way to do the problems. But the vast majority of students utilize the same tools to do the calculations. From Tech's beginnings in 1885, students used the basic wooden pencil, paper, and slide rule.

However, in the past ten years a major transition has taken place in the way of calculating instruments on Tech's campus. Now, students use calculators, the miracle of modern technology. An instrument that used to take up to 40 cubic feet of space can now fit in a pocket, making complex calculations simple. So students now use Pentel mechanical pencils, computer print out paper, and programmable calculators.

What comes after the calculator? At the rate that the electronics field is advancing now, by the year 2000 each student will have his or her own computer terminal that is carried in a pocket which is connected to a central computer by raising an antenna and pushing a button. Tech engineers will probably play a key role in its development, and Tech managers a key role in making it available to the public.
Graduation Day Brings Many Memories
After all the years of work and toil, graduation day for most students is a day of total ecstasy. Take for example, the hypothetical case of George P. Burdell. What does he reminisce about as graduation day approaches? Probably the same things as most students. For instance, he remembers freshman calculus. And he actually thought that he was smart!

One of the best things about Tech that George remembers are the labs. He thinks of all the fun he had in those six hour organic chemistry labs. He is still amazed at those architecture labs that somehow lasted all night long. He begins to recall how many nights were spent in the computer center trying to get that program to run. He thinks that he should have a degree in “fudging” because he did so much when writing up those chemistry labs so that the data would be like it’s supposed to be.

Another thing George recalls is how many papers he put off till the last minute and then had to work on for three days and nights to get in three days late. But he also remembers how great it felt to get that paper back with an A on it. (Was that prof. really fooled?)

One problem that Burdell never had but many students have experienced was that of missing Dean’s List by 0.1. Somehow Burdell always managed to keep the quarters GPA above 3.5. He also remembered how he did that: by staying up all night and reading and studying the 15 chapters that would be on the next day’s minor quiz. He wonders how many pancakes he has devoured over the years by studying at the IHOP all those nights. He begins to wonder how he managed to always have his last final the last period of each quarter. But most of all, he wonders why the Hill hasn’t gone away yet.

After George has received his diploma, he wonders if all the hard work, late nights, and practically living in the library was worth it. His conclusion is that sure it was because now George P. Burdell is one helluvan engineer . . . and deep down he loves Georgia Tech.
Broad Smiles Greet Newly Earned Diplomas