







# ACADEMICS



# Rigorous Studies a Part of Tech From the Beginning

If there is one aspect of life here at Georgia Tech that hasn't changed, it's that academics at this school are a definite challenge — downright difficult, really. Back in the early days, students dreaded the long hours they spent under the watchful gaze of woodshop director John "Uncle Heinie" Heinika. Today, some of the same feelings are evoked by graphics class under, say, John Hutcheson.

Long hours and hard work. There's no escape from it, no matter how one tries. High school geniuses suddenly find that Ma Tech is very unforgiving when they

see their grades on the first calculus test. A mystical aura surrounds the all-nighters that occur more and more frequently until it's time for final exams and the all-nighters stretch into a solid week. Pretty soon, it seems there's a beaten path to the library.

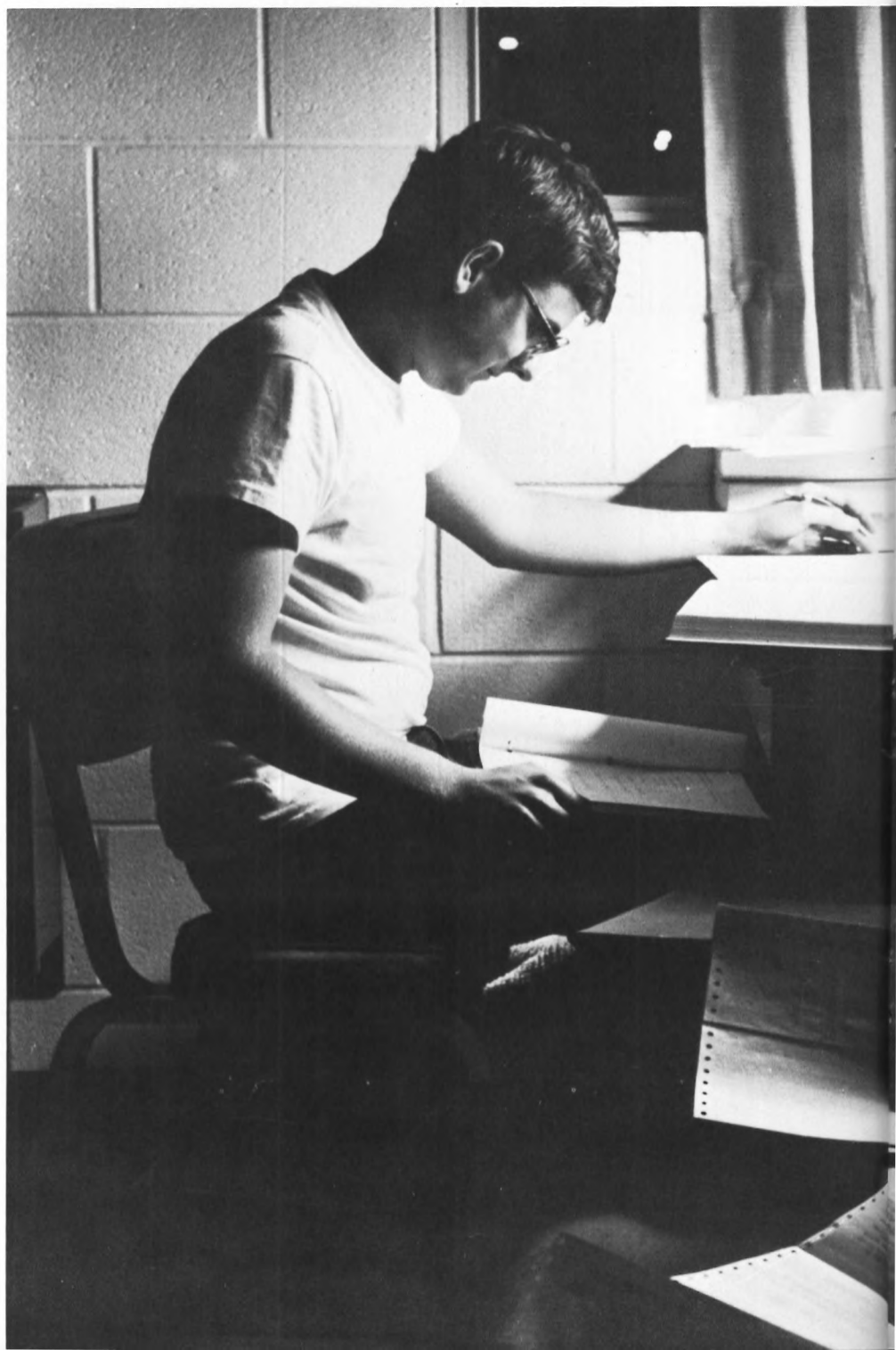
Tech has earned its daunting reputation by reason of its faculty. Never let it be said that a Tech professor made it easy, not when homework is assigned for five different classes and all of it due yesterday.

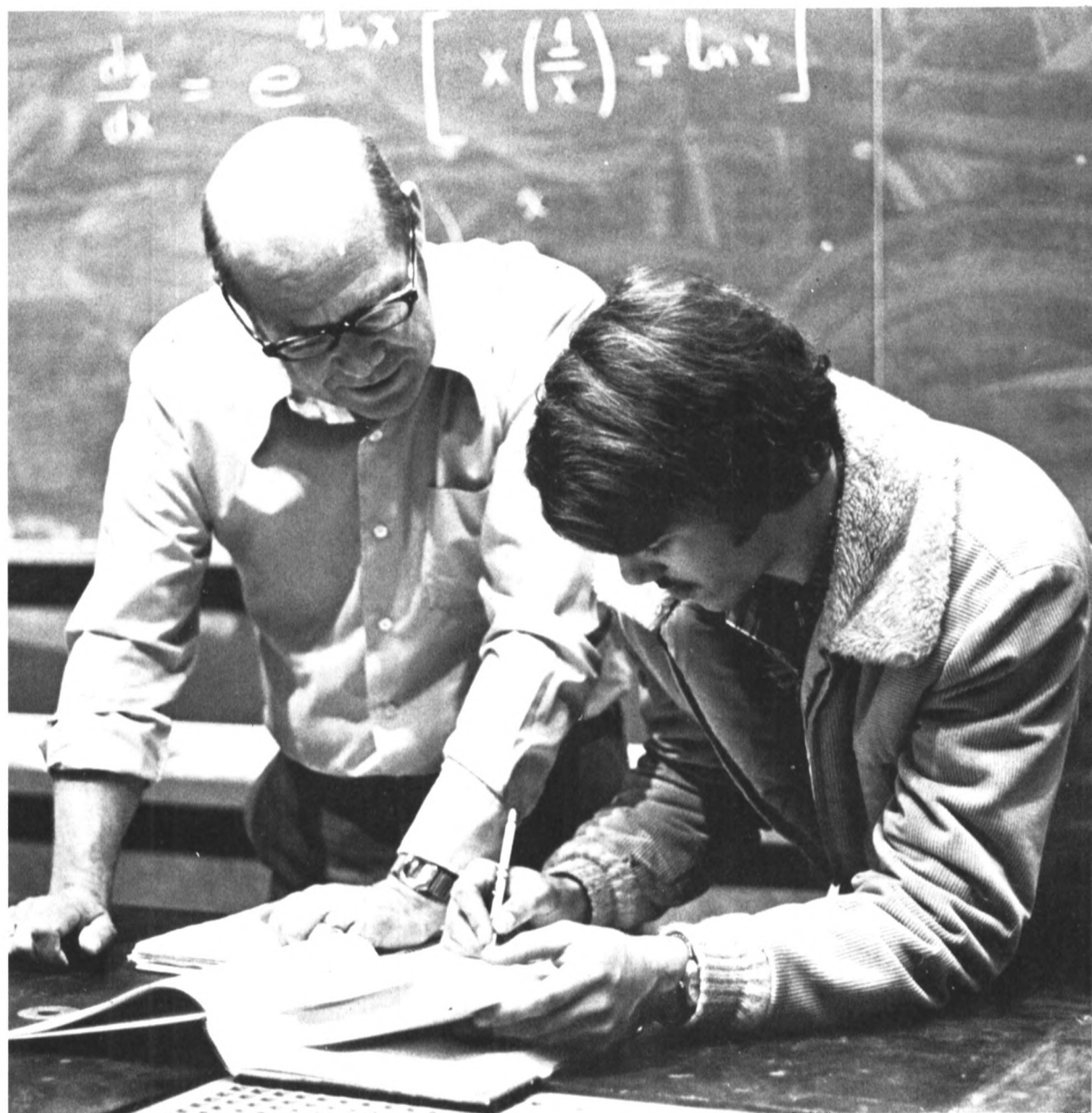
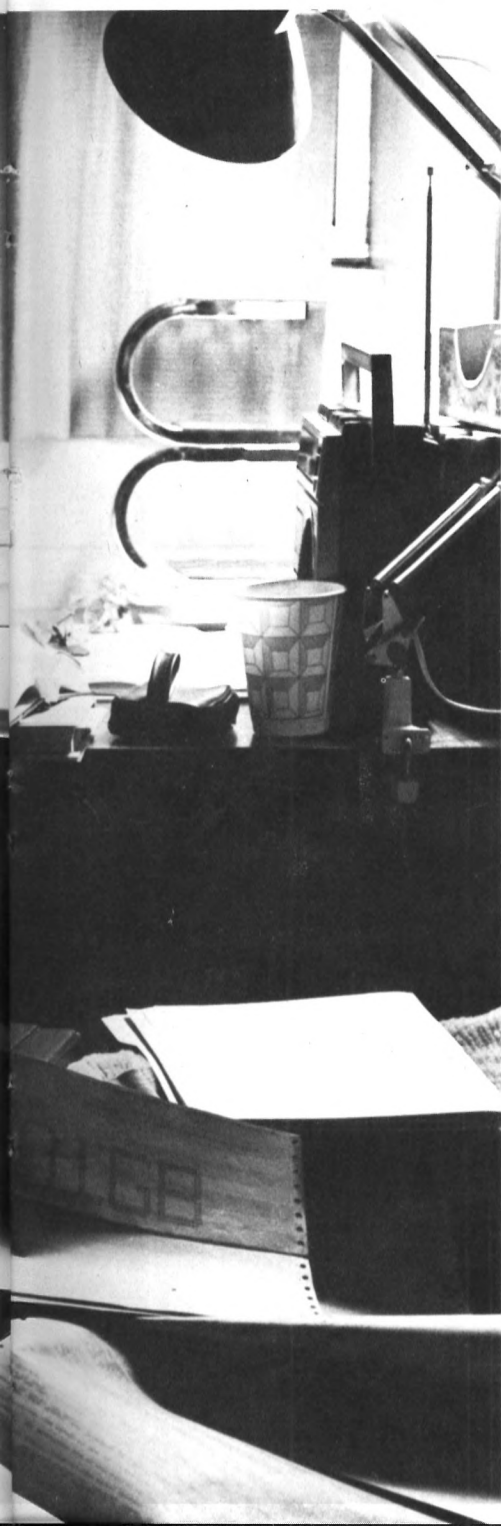
But there's one other thing that the student learns from his academic training

here — he may have hated it at times, but it's all worth it in the end. On that last day, picking up his diploma, he realizes he's reached that goal for which everyone strives, and he's damn proud for sticking it out.

Then again, it's always been that way. Just seems that the more things change, the more they remain the same.

*TOP:* The library fills up as midterms approach. *BOTTOM, LEFT TO RIGHT:* Heavy use by students overloads Cyber, forcing students to wait for programs to compile. Sleep loses importance when an important assignment is due. Professor George L. Cain explains a difficult concept to a freshman calculus student.







*DR. JOSEPH M. PETTIT, PRESIDENT*

## **Transitions Increase Tech's Potential for Growth**







Transitions are as inevitable as the passage of the seasons year after year. Of course, some transitions occur around us and are beyond our control, however, it is the way each person deals with the transitions in his life that determines to a large extent the quality of the life he is to have. As graduating seniors you are in a position to make decisions which will make your life transition a particularly important one to your future.

Institutions, like individuals, also undergo transitions. Since many of the major advances of our times are in the growth of high technology, Georgia Tech, as a technological institution, is in a constant state of transition. There is continued progress and change in the field of technical education at the present time; we want our students to continue to be well educated as scientists, managers, architects, and engineers. You must carry forward your own studies so that you can play a major role in the future in the transitions and advancement of man and the environment in which he lives.

The transitions in the physical aspects of the Georgia Tech campus over the years have been significant. When Tech officially opened its doors in 1888, there were only two buildings on a four-acre campus. The original campus has now expanded to three hundred acres with more than 120 buildings.

Ninety-three years ago Tech's first class of 129 students entered to pursue bachelor's degrees in mechanical engineering. Today, more than 11,000 students from every Georgia county, all 50 states, and 78 countries are studying for degrees in 30 major fields of the Institute's nineteen schools. Women, who were first enrolled in the Engineering Program in 1952, now are represented on campus with more than 2,100 students in fields traditionally dominated by men. Minority students have also increased in numbers and significance.

Yes, transitions continue on our campus — with new faces, new programs, new buildings, and an overall general growth toward excellence. However, some things endure — the quality of the men and women at Georgia Tech. All good wishes for your continued progress.





# Faculty Debates Academic Issues

As the Academic Senate debates the topics of moving Drop Day and reinstating senior exams, students begin to realize how much power this mysterious body holds over their lives.

Comprised of the 400 members of the Institute's academic faculty, this group decides the guidelines for literally every aspect of the student's life at Tech. To help get a balanced view of the issues at hand, students and administration representatives join the professors in this forum. President Joseph Pettit presides over the monthly meetings of the Senate, with the Vice President for Academic Affairs called upon to act in case of Dr. Pettit's absence from the Academic Senate meetings.

The major workings of the organization take place in seven standing committees. These committees are assigned to the topics of Undergraduate Curriculum, Graduate Curriculum, Student Regulations, Academic and Financial Affairs, Student Activities, Student Grievances and Appeals and Student Honor. Of the functional units, the Student Honor Committee, which handles cases of academic dishonesty, is the only one with no members representing Tech's student body.

While membership in the general body is automatically extended to the academic faculty, committee membership is determined by election. A special committee draws up a slate of prospective committee members during winter quarter. The nominees are elected to their

three-year term at the first meeting of spring quarter.

Once a proposal has been approved by its respective committee, it must be voted upon by the entire body. New courses and degrees are typical items presented to the Senate. In the case of a new degree, such as the recently instituted Ph.D. in Biology, the ultimate decision rests with the Board of Regents of the university system.

Another regular function of the Senate is approving all degree candidates prior to their graduation. For this reason, the body holds one meeting during summer quarter.

**TOP, LEFT TO RIGHT:** President Pettit addresses the Academic Senate. **The President's Staff:** Standing: Richard A. Fuller, Assistant to the President; Walter L. Bloom, Executive Assistant to the President; Ethel J. Baker, Assistant to the Vice President, Academics; Al Shepard, Acting Vice President of Research; Warren Heemaun, Development and Public Relations; John Culver, Assistant Vice President. Seated: Edwin P. Kohler, Associate Dean of Students; James Stevenson, Acting Vice President, Academic Affairs; Clyde Robbins, Vice President Planning; Homer Rice, Director of Athletics and Assistant to the President; President Joseph Pettit. **BOTTOM, LEFT TO RIGHT:** Professor listens to discussion of senior examinations. Members ponder drop day arguments. **The Dean of Students Staff:** James E. Dull, Dean of Students; W. Miller Templeton, Assistant—3Dean of Students / International Student Advisor; John A. Wilhelm; James N. Gordon, Director of Student Health Services; Edwin P. Kohler, Associate Dean of Students; Barry Birkhead, Dean of Fraternities; James Strickland, Director of Counseling Center; Carole Moore, Dean of Women; Keith Ivey, Directory of New Students / Parents Program; Rodger Wherle, Director of Student Center.





# Administration Keeps High Standards of Excellence





## Notables Attend Dedication of Long Awaited Annex

The College of Architecture marked its Seventy-Fifth Anniversary this year and along with this came the long-awaited dedication of the new West Wing. To the occasion, three days were set aside to take a look not only at the progress of the College, but also at the state of the profession. Exhibitions of student, faculty, and alumni work filled display areas in both buildings. Numerous speakers including Georgia Tech graduate and Atlanta architect John Portman, came to address the College on such issues as architectural education and architecture as a business.

The theme of "Transitions" for the opening ceremonies was fitting as the College is currently involved in several major changes. Dean William Fash spoke of the development of new graduate programs in architecture and city planning. This will not only provide for the inevitable growth at the graduate level, but is also expected to attract a broad range of

students from other schools in the U.S. and foreign countries. A proposed new curriculum for Industrial Design and a plan to study the Building Construction program hit at future major transformations.

Architectural research continued its pattern of rapid growth and has presented itself as one of the larger programs of its type in the country. Current research focuses on designing for handicap accessibility and work in the field of energy, especially passive solar design.

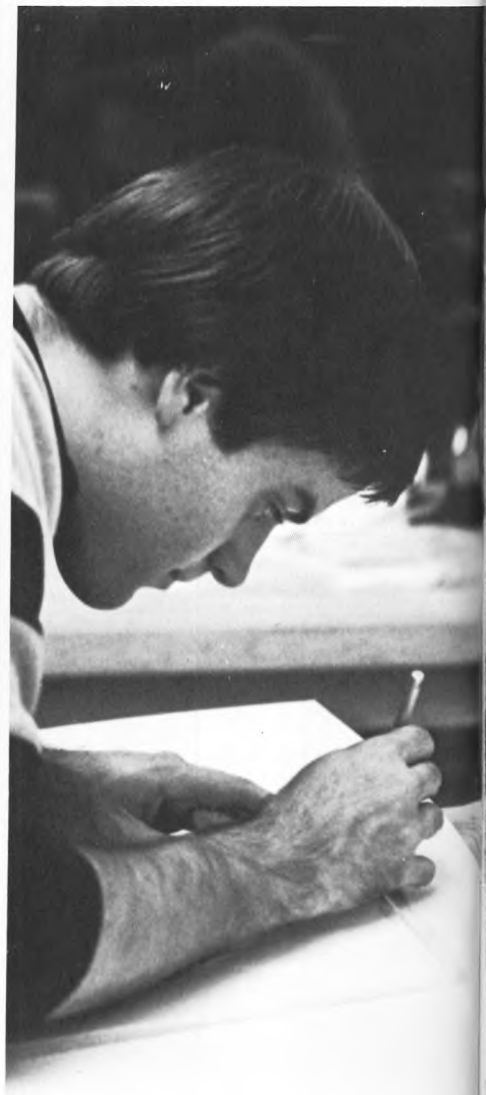
The need for increased knowledge as a result of the changing scope of architecture is constantly being provided for. The use of computers as they apply to architecture is being stressed by Dean Fash. Students are learning to use not only computers but also programmable calculators to make determinations of project feasibility and energy use simulations with greater accuracy.

Knowledge in architecture is gained,

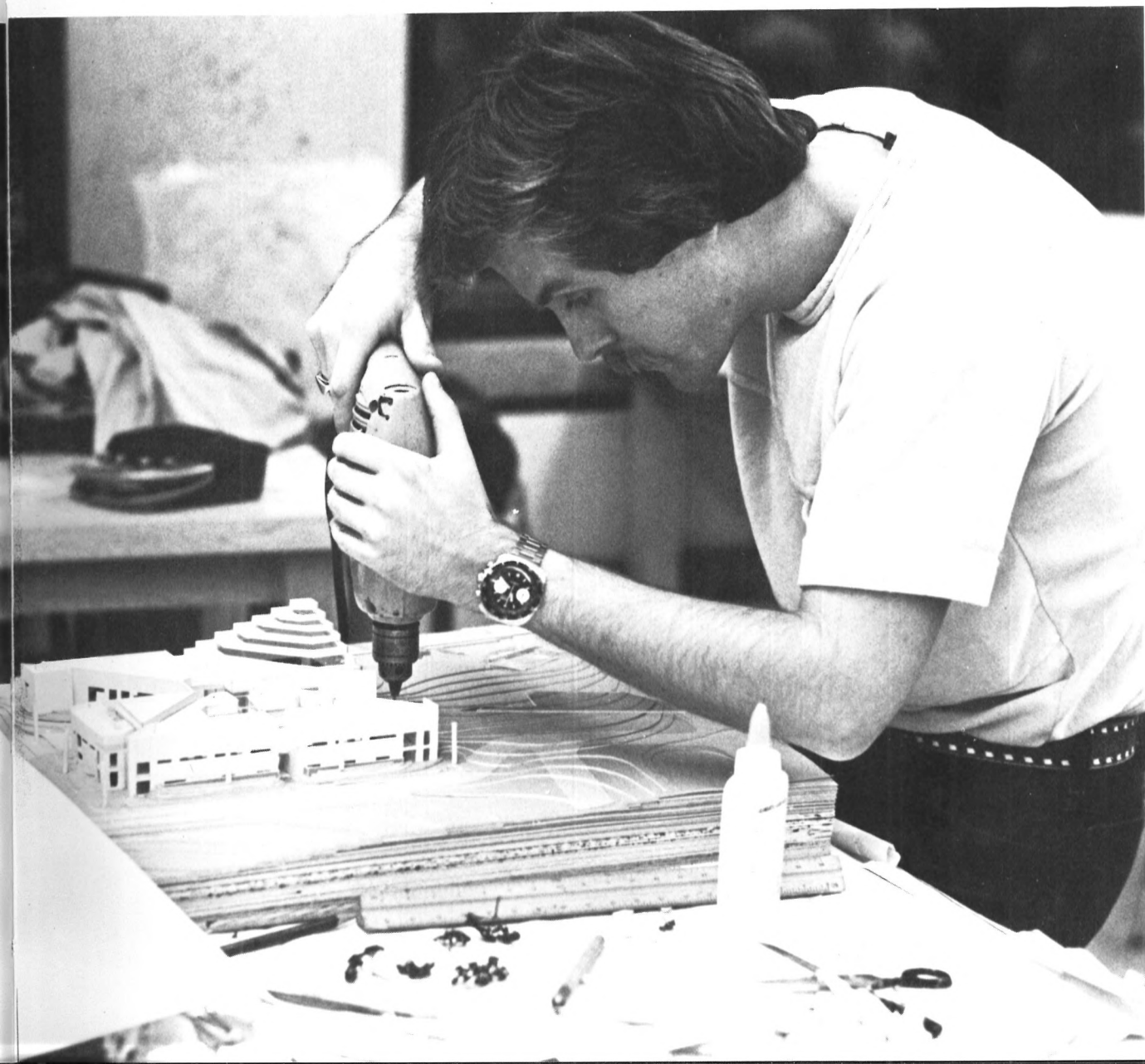
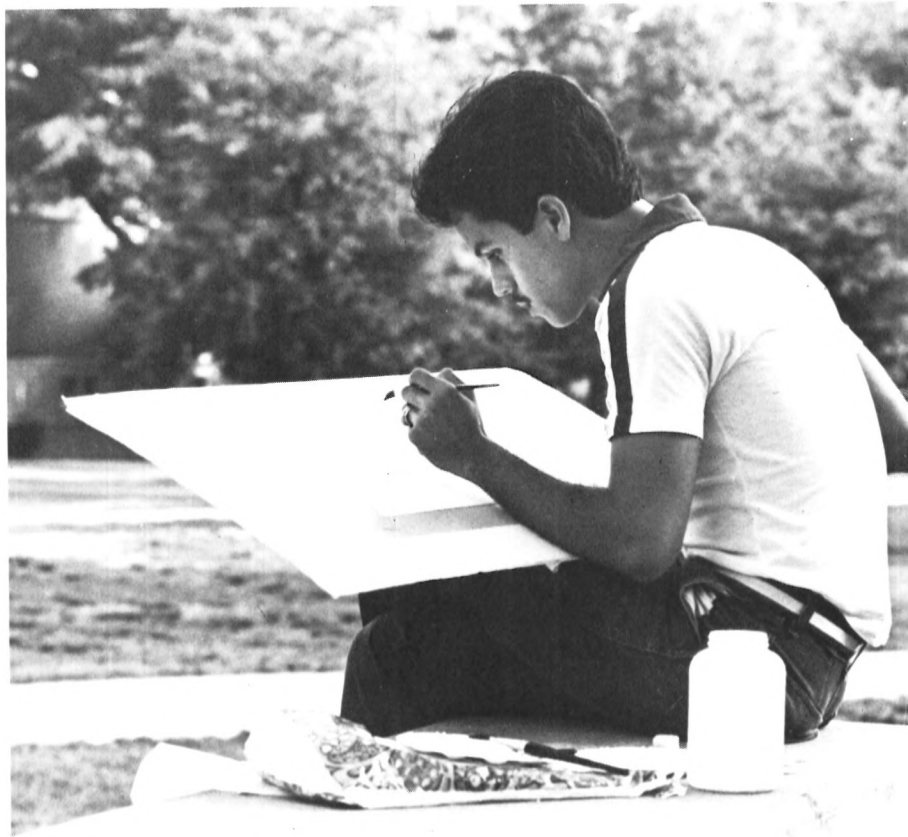
perhaps most meaningfully, in the design studio. Long hours of work by the student coupled with valuable critiques by the professor combine to create imaginative and feasible solutions to design problems. The "all-nighter" or "charrette" also provides the student with necessary ideas and suggestions from other students as well as uniting students in a common cause: to stay awake and finish the project.

Expanding programs, continuing research, and design studio all combine to offer the student with the most comprehensive education possible. Ultimately though, the success of the College depends primarily on the integrity and desire of the student.

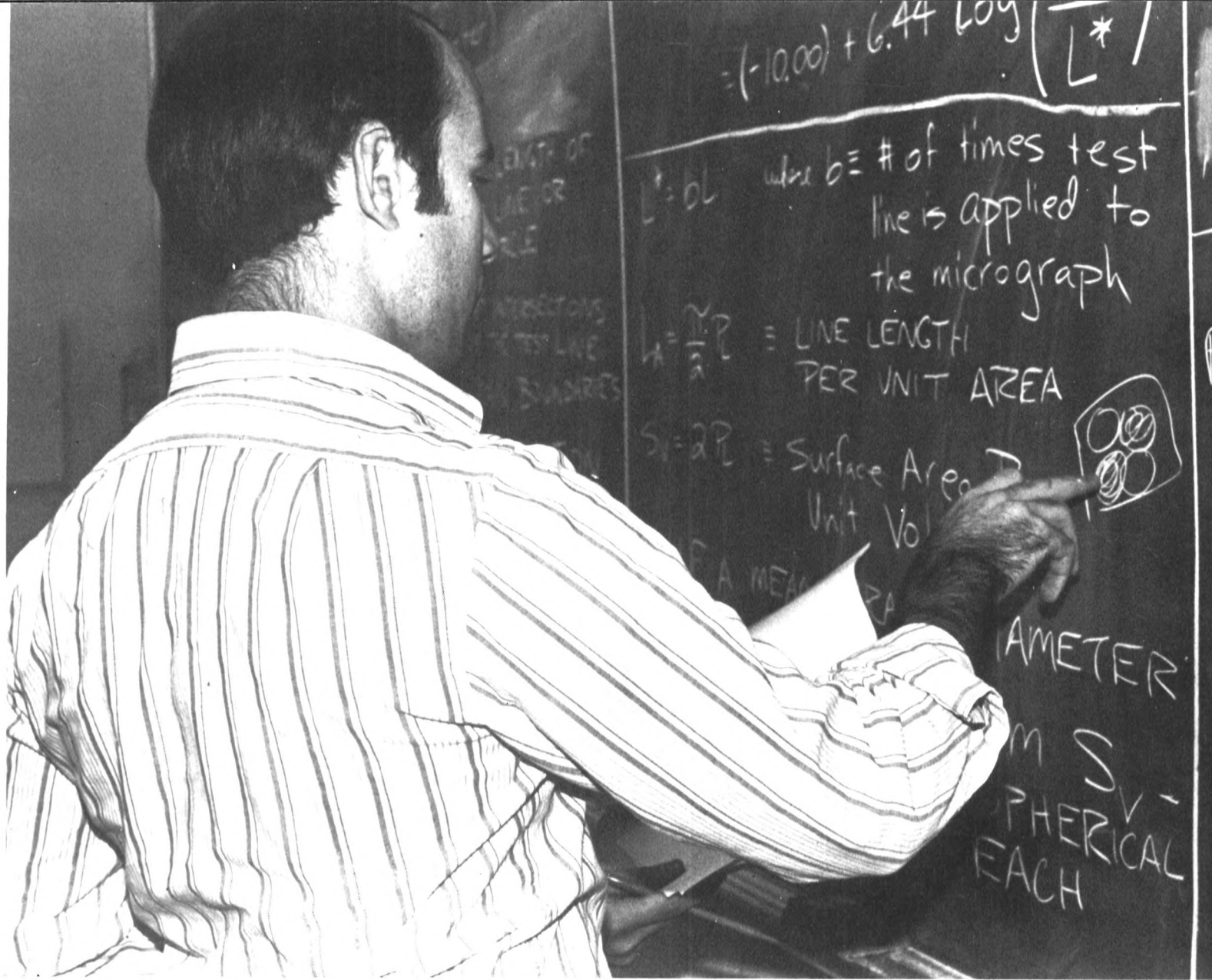
*TOP, LEFT TO RIGHT:* John Portman, after the dedication of the new building. A future architect practices his watercolor technique. *BOTTOM, LEFT TO RIGHT:* William L. Fash, Dean of the College of Architecture. David Lanier nears completion of a scale model church in Architecture Lab.













## Rigorous Standards Fail to Alleviate Overcrowding



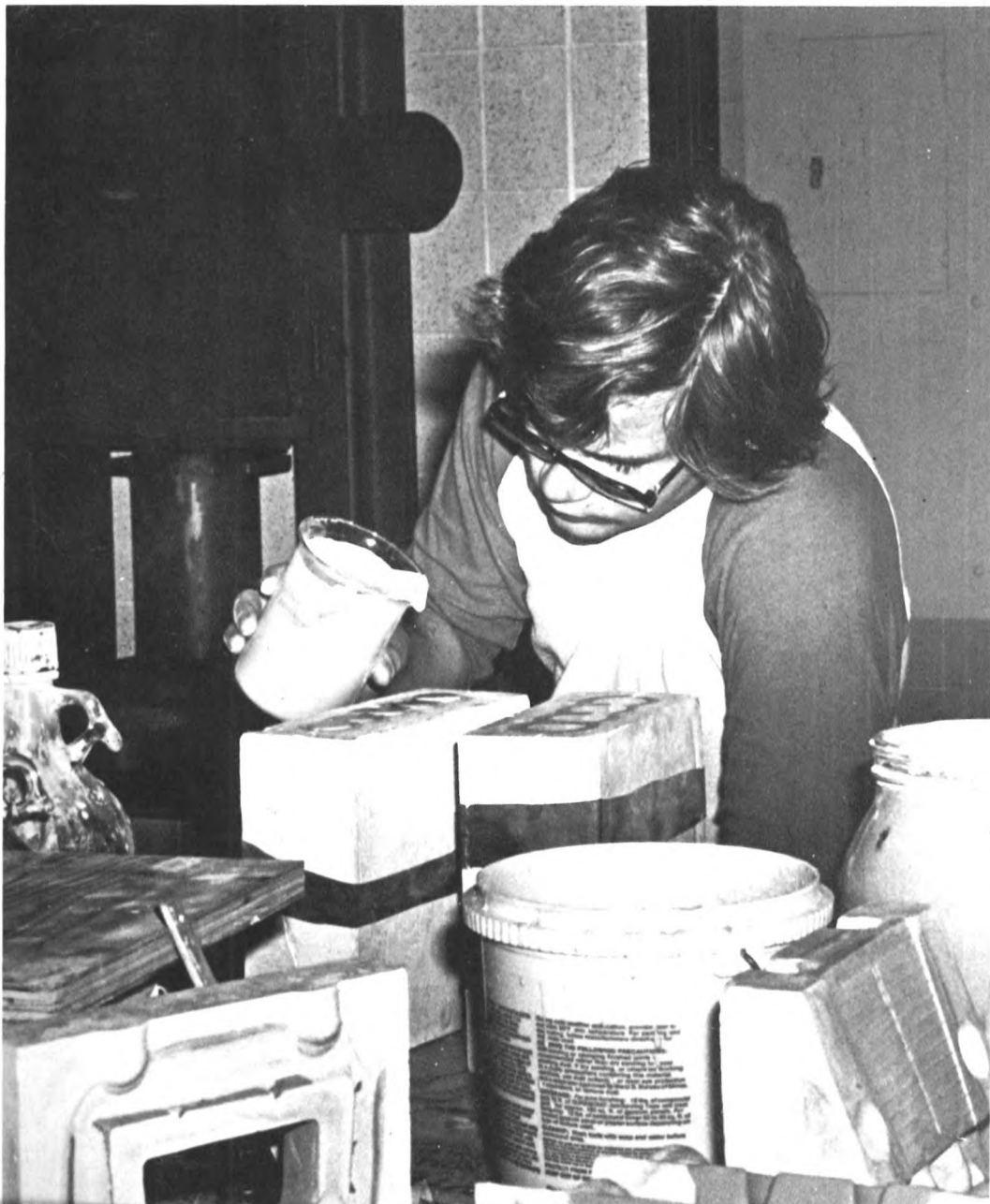
Maintaining the rigorous academic standards which have placed the Georgia Tech's College of Engineering among the top ten engineering schools in the nation has become a greater challenge with the inpouring record numbers of students. Tougher admissions policies and stricter individual school requirements have yet to alleviate the problems of crowded classrooms and overburdened teaching staffs.

Current advances in areas of science ranging from solar energy to micro-electronics have created a gap between present knowledge and sufficient qualified technical personnel to put these advances into practice. Many large corporations have begun offering top-paying positions utilizing the latest research equipment to established engineering professors. Thus with a national shortage of teachers and Ph.D.'s, there is increased competition for new faculty

members between schools and industry.

The record demand for young engineers has pushed undergraduate enrollment in the technical fields to new highs throughout the country. A joint study by the Department of Education and the National Science Foundation indicates that there will be more than enough engineering graduates to fill this need over the next decade. Yet, some companies will not be able to hire enough young engineers with the educational background of Tech graduates, and their position in the job market is expected to remain at record levels.

*TOP, LEFT TO RIGHT:* Teaching Assistant explains how to calculate grain size of specimen using micrograph in ME 3212 lab. Dr. William Sangster, Dean of the College of Engineering. *BOTTOM, LEFT TO RIGHT:* Student performs calculations in materials lab. Student checks his results before handing in lab report. Bricks are poured in Cer.E. lab. Arc welding is demonstrated in ESM lab.





# Growing Design Trends Reflect Computer Emphasis



Aerospace design is rapidly becoming a computer function, rather than the traditional drawing board method of old. Tech's Aerospace Engineering School has responded to this trend by the development of a computer-aided design program, which will enable students to keep abreast of the latest design techniques.

Computers, however, are not the sole success factor in aerospace or any engineering project. Written communications are the key to any project, and the department is placing added emphasis on writing by combining technical writing with lab courses. Students are urged to participate in research during their senior year and to write a paper under the supervision of both the English and AE departments. Upon completion these papers are submitted to the American Institute of Aeronautics and Astronautics at their annual meeting.

Much of the research pursued by the school is societal in nature, attempting to solve problems whose solution would be beneficial to mankind. Techniques for looking at fluid flow involving arteriosclerosis of the heart, fire safety, and vibrating structures are but a few of the targeted projects falling outside the normal range of Aerospace.





## CERAMIC ENGINEERING

# Innovative Engineers Meet Demand

Ceramic engineers utilize the world's least expensive, most abundant raw material — dirt. Geologic substances such as sand and clay form the basis of ceramic staples including brick, glass, porcelain, and cement. In the past decade, ceramics have expanded into many new areas with material applications in electronic computer circuits, radiant heaters, and automobile exhaust catalysts. The need for these traditional and non-traditional speciality products has resulted in a continuous rise in demand for ceramic engineers.

Student awareness of trends and applications is supplemented by seminars with visiting scientists, engineers, and plant representatives. The student branch of the American Ceramic Society complements these activities with tours of nearby

ceramic research and manufacturing facilities.

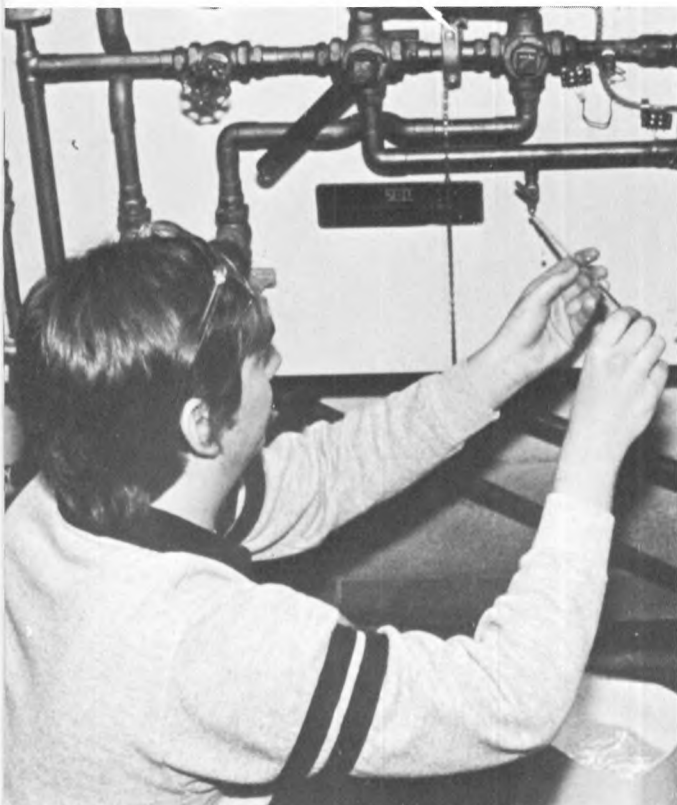
Classroom learning is backed up by research, as well as practice, through experimentation in the high temperature material section of the Engineering Experiment Station. Experimentation includes both the improvement of traditional techniques and the development of newer uses of ceramics such as rocket nozzles. Thus graduates from the School of Ceramic Engineering utilize background in theory and practice in a field increasing in importance to the world as a whole.

*TOP, LEFT TO RIGHT:* New computer programs aid design students. Dr. Arnold Ducoffe, Director of Aerospace Engineering. Dr. Joseph Pentecost, Director of Ceramic Engineering. *BOTTOM, LEFT TO RIGHT:* Gathering data from fluid-flow experiment. Measuring heat resistance of ceramics at the Engineering Experiment Station.





## Dedicated New Faculty Handles Growing Enrollment



With a thousand undergraduate students, the School of Chemical Engineering is one of the largest on campus. Director Gary Poehlein feels that the facilities are being strained to the maximum by the presence of so many students.

The large salaries commanded by students with a Bachelor of Science degree in Chemical Engineering have increased the number of undergraduate students. However, the graduate program has suffered because students are being lured away from master's and doctoral programs by lucrative industrial positions.

The school has a strong research program which affords undergraduates the opportunity to work on special projects and, perhaps, even begin a graduate thesis while still an undergraduate. Topics of current research projects include the areas of polymer kinetics, catalysis, conversion of wood to alcohol, and bio-engineering. There has been a renewed interest in bio-engineering and one of the more interesting projects involves the study of blood flow in the heart in order to design

artificial heart valves.

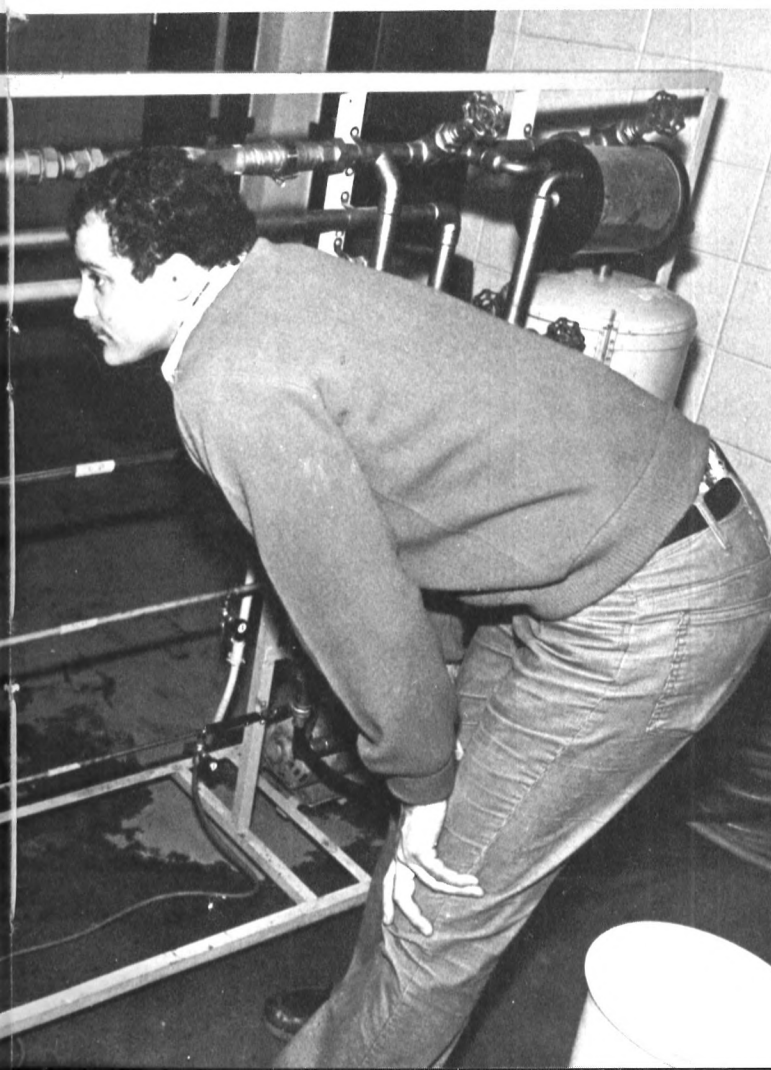
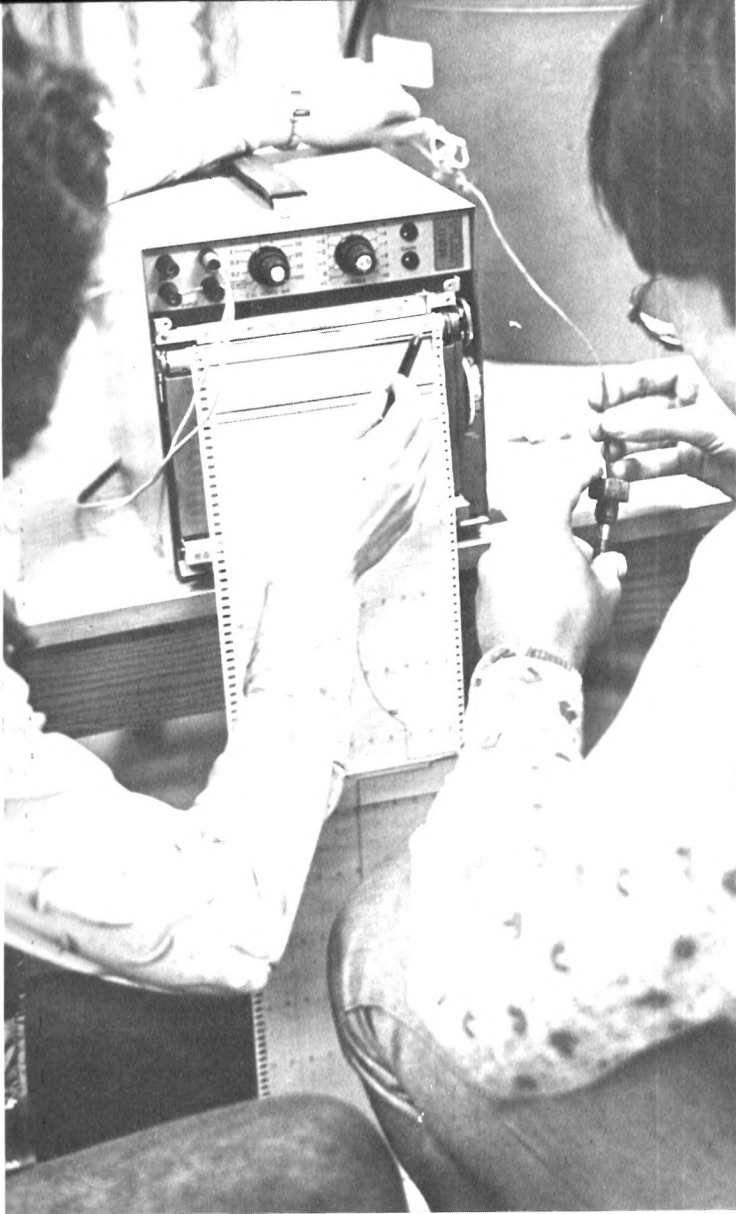
Changes have been numerous in the Chemical Engineering Department in recent years. Over half of the nineteen permanent faculty members have been at Tech less than two years. The dedication of each faculty member to education is immediately apparent when one considers that most Chemical Engineering professors could probably obtain a higher paying position outside of the academic world.

The opportunities for chemical engineers have never been better with companies hiring graduates at a record pace. The chemical engineering job market will fluctuate with the overall engineering job market, but Chemical Engineering graduates should not suffer greatly because of the flexibility of their degree.

*TOP, LEFT TO RIGHT:* ChE student makes minor adjustment in fluid flow lab. Dr. White helps students in Chemical Engineering Lab. Students obtain data from print-out. Dr. Gary Poehlein, Director of the School of Chemical Engineering. *BOTTOM, LEFT TO RIGHT:* ChE student observes fluid flow apparatus in senior level lab course.









## Research Covers Diverse Topics

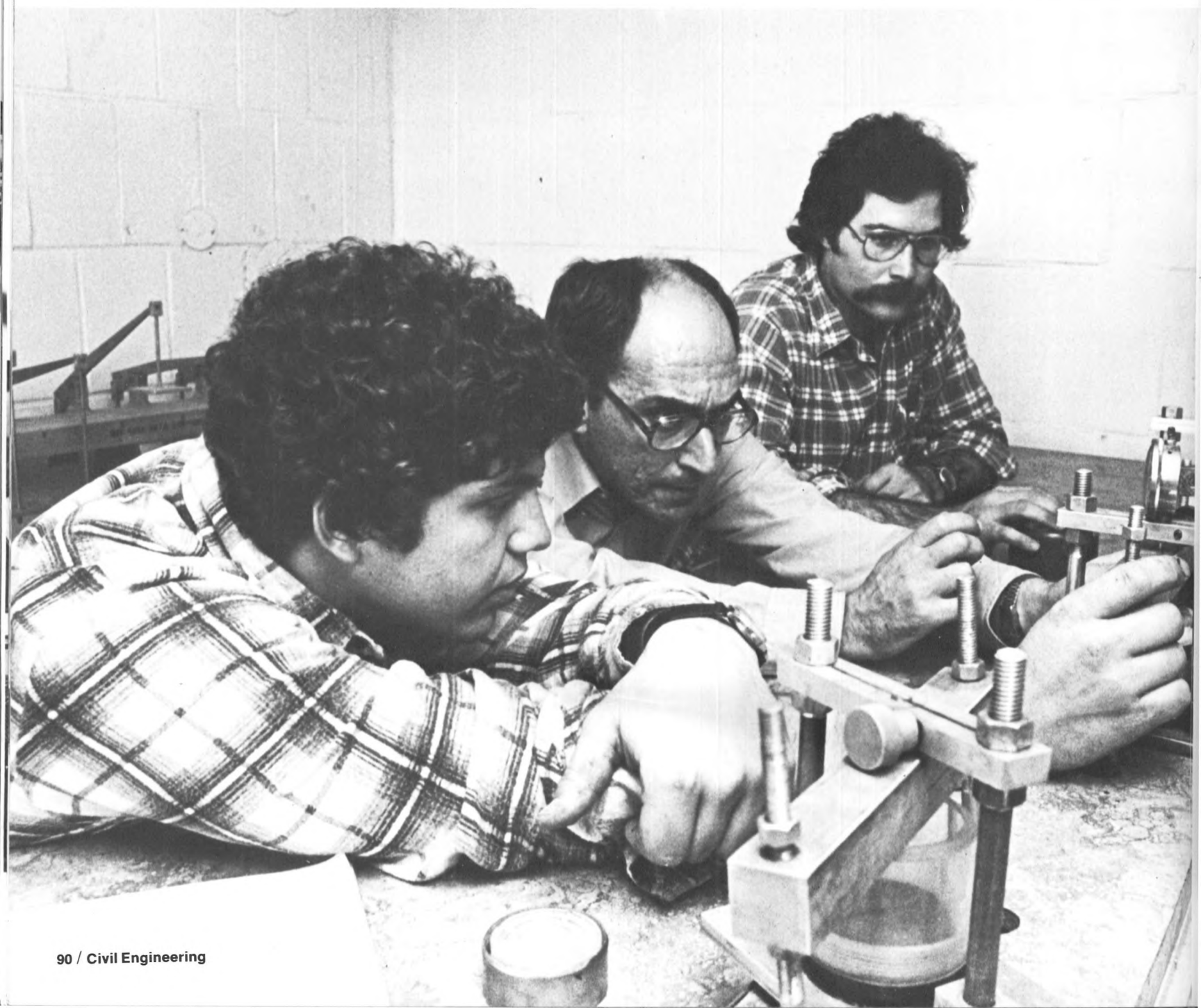
The constantly changing demands of a technological world have had widespread effects on Civil Engineering. These changes have affected the field on both the academic and professional levels.

Courses in computer graphics and the applications of the VAX minicomputer system have been added to the curriculum in order to give students a clearer perspective of engineering theory. Faculty research is diverse, ranging from traditional interests such as structures to newer topics like waste chemical storage and energy conservation.

Government regulations and findings of the Environmental Protection Agency have placed new emphasis on sanitary

engineering. Digital computers have become commonplace in business, and the school is compelled to turn out graduates capable of using this technology. Furthermore, the development of polymers and plastics for use in structural applications have resulted in a need for additional research in the area as well as curriculum modification to include these newer topics.

*TOP, LEFT TO RIGHT:* Dr. John E. Fitzgerald, Director of Civil Engineering. Dr. Demetrius T. Paris, Director of Electrical Engineering. *BOTTOM, LEFT TO RIGHT:* Students set up apparatus during a soil compaction test. Circuits and circuit theory are learned in E.E. labs. Sensitive instruments are used by a couple of students in their examination of computer circuits.





## School Experiences Surge in Enrollment and Research



The rapid growth in the numbers of undergraduate and graduate students studying Electrical Engineering has created real problems for the school, according to Director Demetrius Paris. The rapid expansion has meant crowding students in existing facilities and a very unfavorable student to faculty ratio. New faculty members are being hired, but competition with the lucrative electronics industry is heavy for these talented people.

Rising enrollment has allowed the department to expand its research activities, always one of the school's strengths. Projects are currently underway studying solar energy, laser systems, computers and the generation or transmission of electrical power. Continuing study of traditional areas such as electromagnetism and circuit theory is now being complemented by work in newer fields such as optics and solid state research. To facilitate these efforts, cooperative ventures with other departments, such as physics, have been instituted to attack problems with new solutions.





## School Changes Teaching Methods

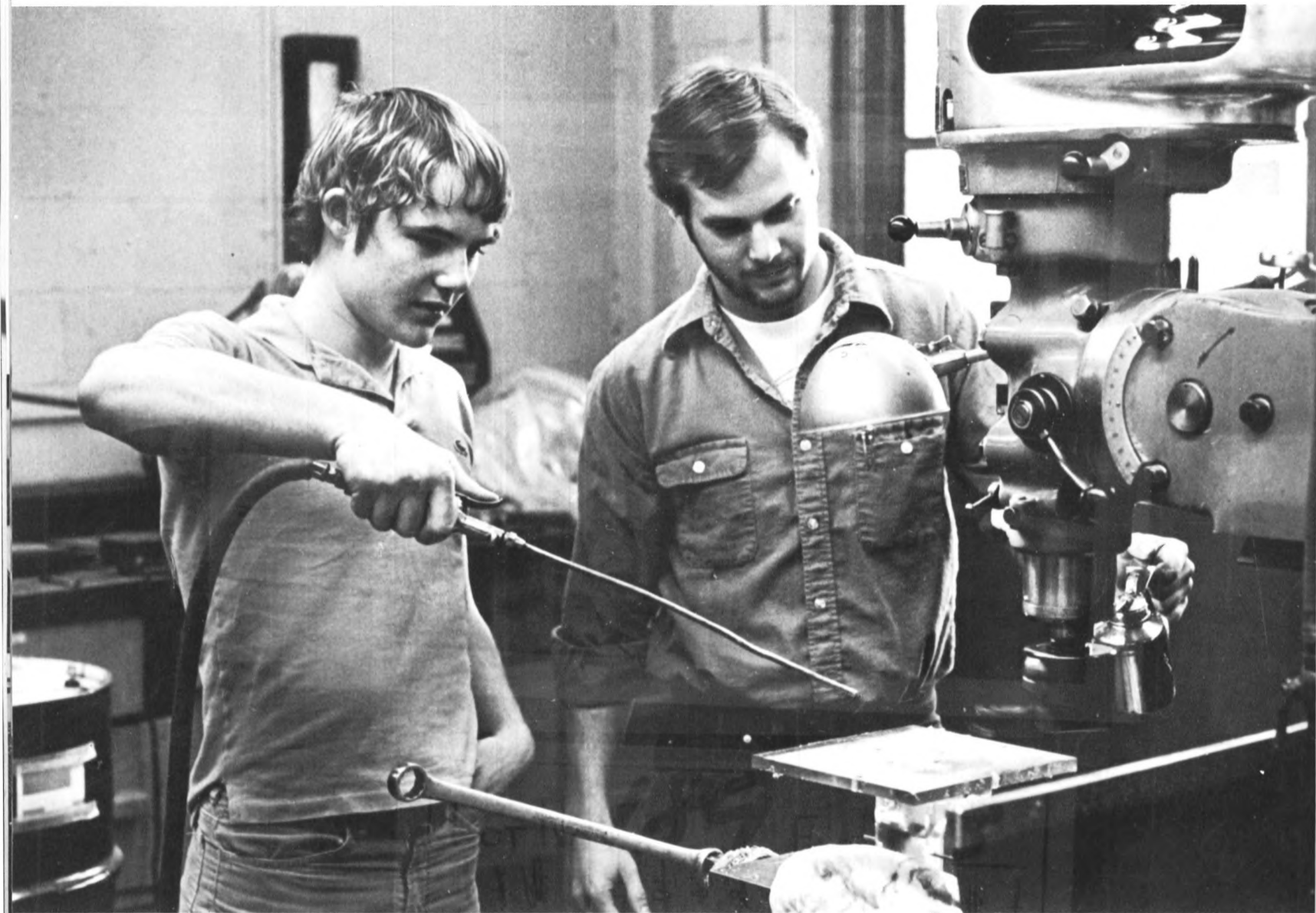
Many Georgia Tech students get their first real introduction to engineering problems through the service courses of the School of Engineering Science and Mechanics. Statics, Dynamics, and the Mechanics of Deformable Bodies are courses which are designed to make the future engineer think about problems. Since much ESM work is done with mathematical models, the school has developed a microcomputer system for teaching and clarifying abstract ideas to the undergraduates.

Dr. Milton Raville, director of the school, feels that his faculty has an enormous load upon them considering that all engineering students must take classes from his department. This burden

adversely affects the faculty with large classes, but to alleviate this, graduate students are used as teaching assistants in the problem-solving classes.

Graduates with degrees in Engineering Science and Mechanics have a great knowledge of stress analysis, biomechanics, failure analysis, dynamical systems, flow phenomena and structural design. With this background, they fit well into a wide variety of engineering job opportunities.

*TOP, LEFT TO RIGHT:* Dr. Milton Raville, Director of the School of ESM. Ellen Freeman studies Health Systems in the Multi-Media Instruction Center. *BOTTOM, LEFT TO RIGHT:* Billy Hinners and Leslie Lynch mill a lexan plate in the ESM lab. Dr. Harold Smalley, Director of the School of Health Systems.





## Research Center Carries on Community Projects



Having started as a faculty research project in 1952, the field of health systems has grown rapidly from a student option in 1958 to a program in 1972 to a school in the College of Engineering in 1977. The area of study was pioneered at Georgia Tech, and the school along with its faculty have earned national renown for community service and an innovative research program.

The School of Health Systems is affiliated with the Medical College of Georgia. Experimentation and community oriented projects are based on campus at the Health Systems Research Center, established by the Board of Regents in 1969.

Students are eligible for Bachelor and Master of Science degrees, with a premedical school option. While courses offer the general background necessary for admission to most medical and dental schools, students have a variety of areas in the growing profession of health science to choose from. Field training is provided by a three month senior externship, and graduate students may use major related projects as an equivalent to a master's thesis. Health Systems graduates learn to combine systems engineering and management science to establish programs for hospitals, institutions, and health related organizations.



# Curriculum Emphasizes Understanding of Industry



In an age where American productivity is declining and foreign products are rapidly flooding American markets, industrial engineers are in high demand. The IE whose curriculum at Tech is geared toward a broad understanding of industry, equipment, and profit is trained to increase the productivity ratio while maintaining quality and worker satisfaction. The need for industrial engineers in today's market is reflected in the number of students in the ISYE school.

Burgeoning size causes problems for the ISYE school, as it is housed in the oldest classroom building on campus. In an effort to alleviate this problem, a new building has been planned, and the groundbreaking for the ISYE/College of Management complex was held in the Fall of 1980. The new facility will enable the school to expand its computer facilities, and a materials handling lab will also be a reality.

*TOP, LEFT TO RIGHT:* Dr. Michael Thomas, Director of Industrial Engineering. Dr. Bazarra conducts class. Dr. S. Peter Kezios, Director of Mechanical Engineering. *BOTTOM, LEFT TO RIGHT:* Jill Davis listens intently to an IE lecture. Students in lab.



## MECHANICAL ENGINEERING

# Practical Degree Attracts Students

The role of the mechanical engineer in industry today has expanded greatly due to the energy crisis, constantly changing production procedures, and needs for improved productivity. This has led to an increased enrollment in the School of Mechanical Engineering as prospective students realize the practicality and advantages of a degree which is in such demand in the job market.

Dr. S. Peter Kezios, director of the school, is of the opinion that engineering students, especially those in mechanical engineering, get a majority of their practical experience outside of the classroom. Programs such as cooperative engineer-

ing, and the Student Competition on Relative Engineering are forums for this experience. In the classroom professors tend to stress theory rather than actual application. Furthermore, expanding use of microprocessors is forcing revisions in the curriculum to keep engineers current with available technology. Research in the field of mechanical engineering is growing and encompasses work involving a variety of topics ranging from cloth flammability to acoustical submarine tracking. These new technologies mean new interests and knowledge for both the students and the faculty.





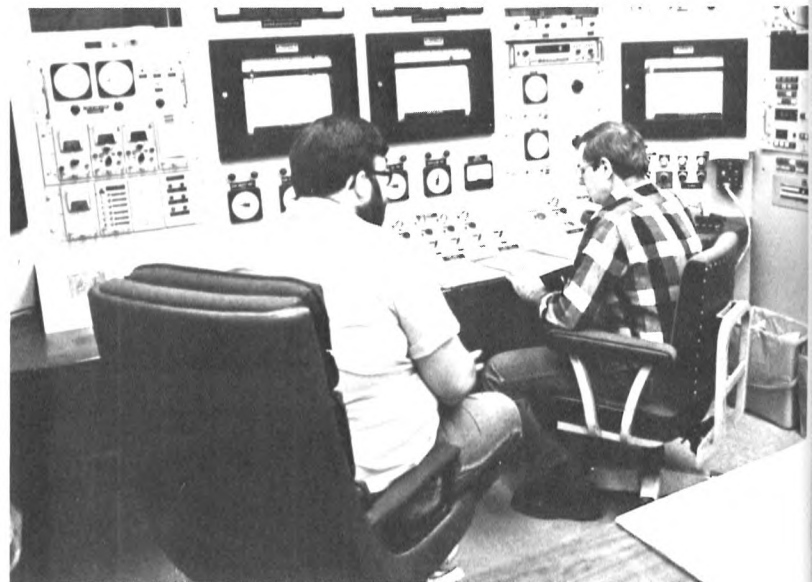
## NUCLEAR ENGINEERING

# Core Curriculum Offers Variety

The School of Nuclear Engineering continues to expand the frontier of nuclear technology. The curriculum is structured to facilitate students' plans for either immediate employment or continued education, with flexibility indicating the wide range of specialization within the field. Students can enter a variety of specific areas of study with a background in nuclear core and fuel design, fuel process engineering, nuclear power economics, and reactor operations.

Undergraduate and graduate level work in nuclear engineering and health physics are complemented by an extensive research program which is centered around several facilities on campus. Nuclear energy research attempts to solve the problems of advanced reactor design, radioactive waste disposal, and danger-free nuclear power generation. The Frank H. Neely Nuclear Research Center features fission experimentation with a five megawatt heavy water moderated nuclear reactor.

The increasing use of ionizing radiation in the nuclear sciences has led to a greater awareness of health physics. Through the Center for Radiological Protection and its Environmental Research Laboratory, health physicists learn to deal with the increasing potentials of radiation hazards. These and other principles serve as a solid foundation upon which students gain valuable insight into the application of Nuclear Engineering.



## TEXTILE ENGINEERING

# Student Run Enterprise Teaches Production Methods



As the Textile industry is located primarily in the South, Tech's Textile Engineering School has developed a natural and important relationship with that industry. The school produces graduates with the degrees in engineering and chemistry, as well as the more general Bachelor of Science Degree in Textiles. Although the industry is an indicator of economic fluctuations, enrollment remains steady and there are always plenty of jobs available for graduates.

Undergraduates are introduced to the rapidly changing industry in a number of ways. Tex-Tech, the student-run laboratory, provides practical experience as students design and produce various fiber products which are then sold to the Tech community; field trips to textile plants are

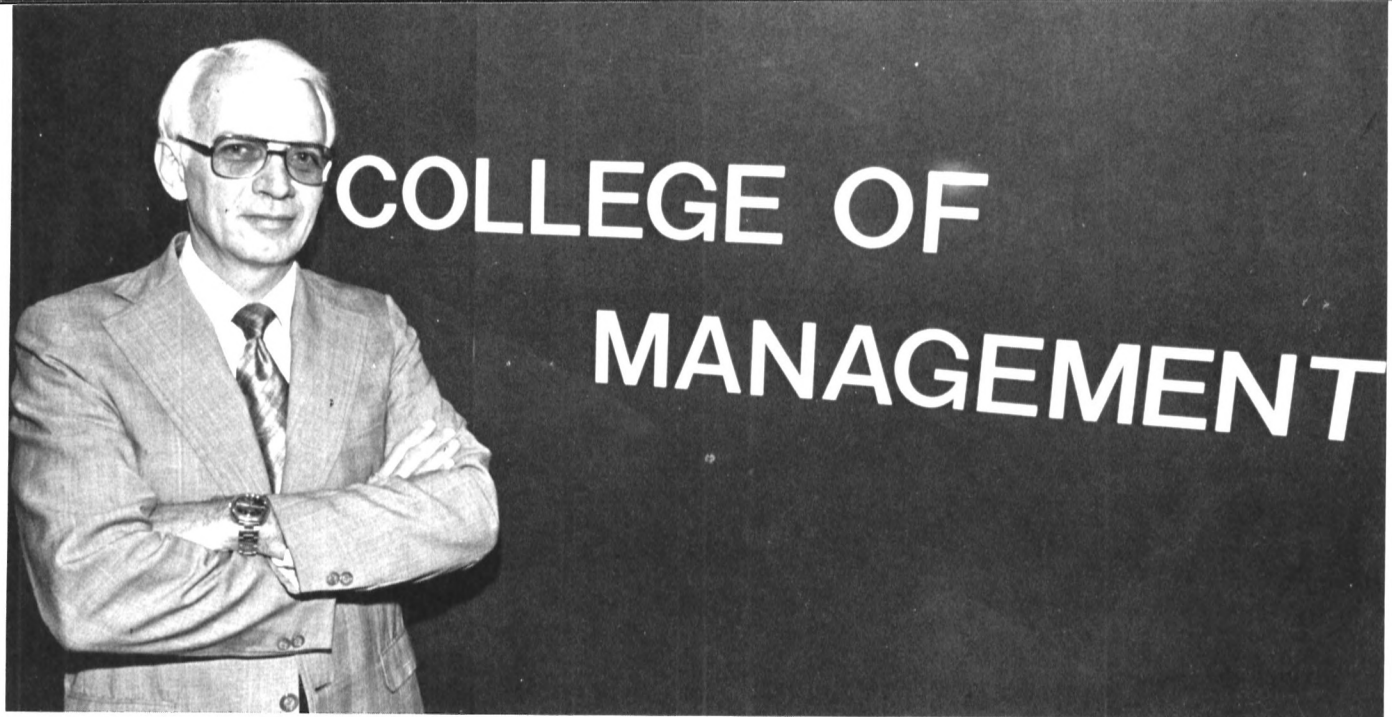
used to augment this experience.

Research, on both the graduate and faculty levels, embrace advanced study in diverse areas such as fiber synthesis and process dynamics. The rapidly expanding field of geo-textiles has resulted in the development of fibers to be used with structural applications such as roadbed fiber mats which greatly reduce wear on highways. In all areas of research, applications are geared toward solving the multifaceted problems facing the nation's largest manufacturing industry.

*TOP, LEFT TO RIGHT:* Researcher adjusts a monitor. Dr. Wayne C. Tincher, Director of Textile Engineering. *BOTTOM, LEFT TO RIGHT:* Dr. L. E. Weaver, Director of Nuclear Engineering. The reactor control room facilitates nuclear safety education. A student uses a mechanical arm to doff spools.







COLLEGE OF MANAGEMENT

College Breaks Ground for Complex in West Campus

Changing the name of the College of Industrial Management to the College of Management illustrated the expanding perspective of management at Tech. While the degrees offered by the college remain the same, Bachelors of Science in Industrial Management, Management Science, and Economics, the school is expanding both physically and academically.

In fall, Governor George Busbee aided in the groundbreaking of the management building of the IM/IE complex. Located between the Student Center and SAC, the three million dollar structure will

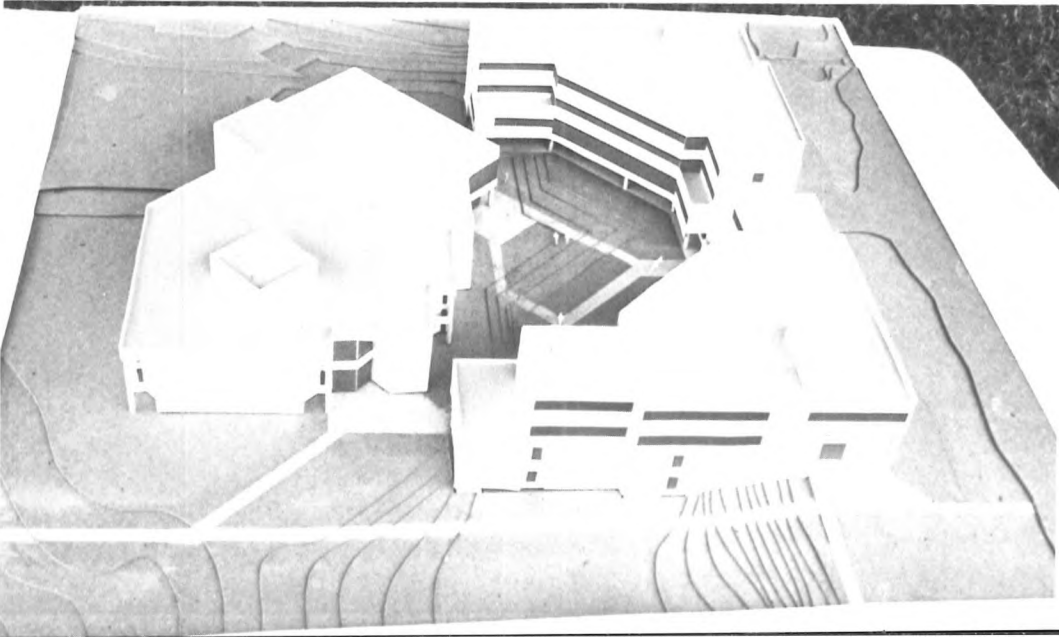
eventually contain a management building, industrial engineering building, and instructional center. Not only is the building expected to relieve overcrowding in the Skiles Classroom Building, but it will give the college a central focus and a much needed sense of identity.

As opposed to most business majors, a management degree is oriented toward technical aspects such as mathematics and science. Interplay between seniors and graduate students is encouraged and seniors are urged to take graduate level courses. Restructuring the graduate curriculum to add an MBA style two-year

program is expected to draw additional students from other schools.

As Busbee said at the groundbreaking ceremonies, "Young men and women leave Georgia Tech with sound management training and a high awareness of the technical aspects of tomorrow's world."

TOP, LEFT TO RIGHT: Dr. Charles E. Gearing, Dean of the College of Management. Groundbreaking ceremonies for the new building feature President Pettit, Governor George Busbee, and Chancellor Vernon Crawford. BOTTOM, LEFT TO RIGHT: Gary Newsome checks the output from a management science program. Architect's model of the Management/Industrial Engineering Complex to be located near SAC.





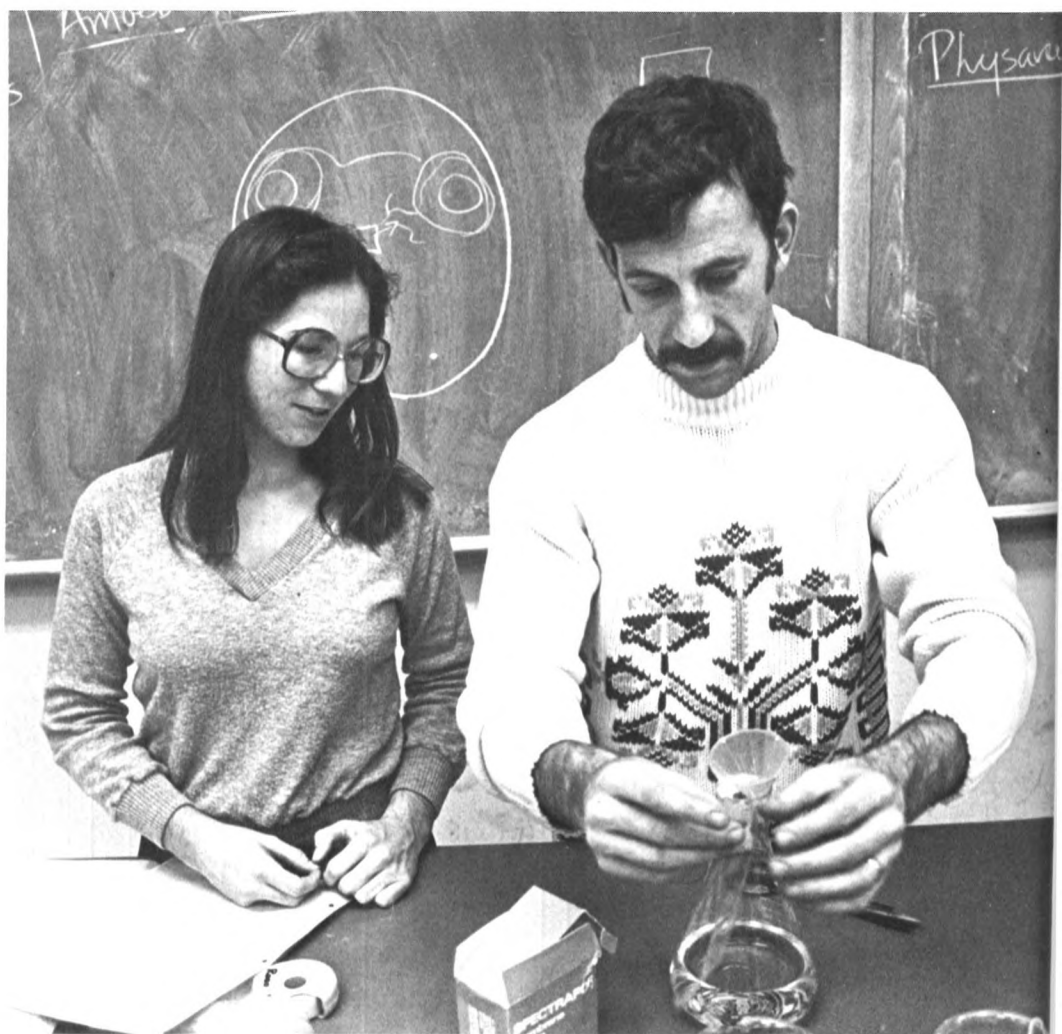
COLLEGE OF SCIENCE  
AND LIBERAL STUDIES

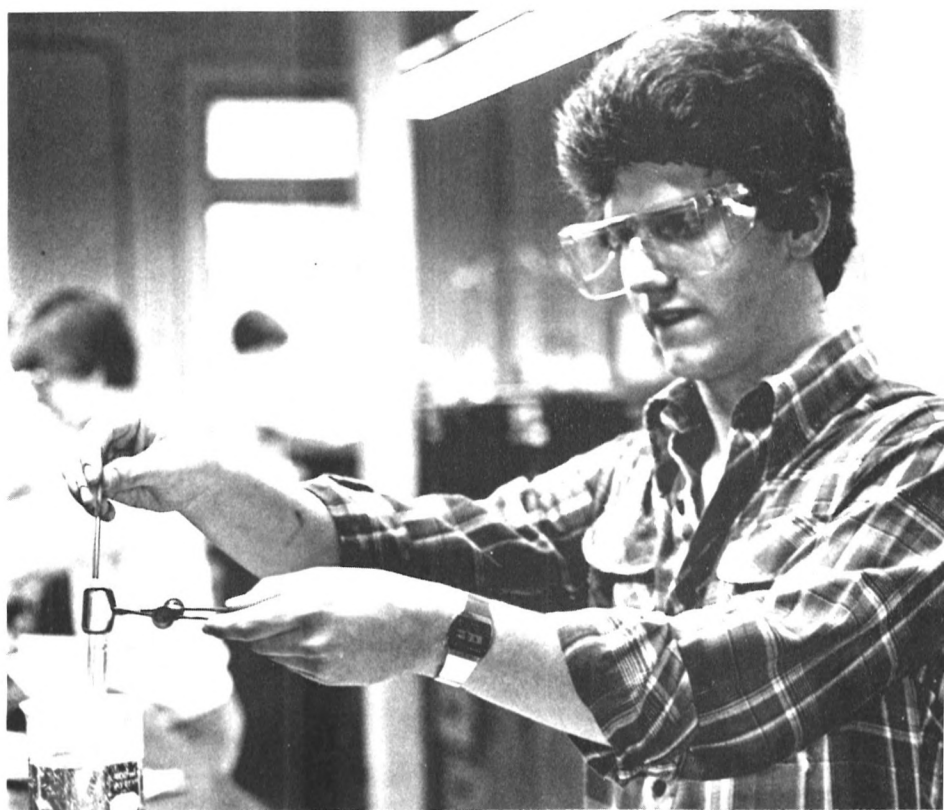
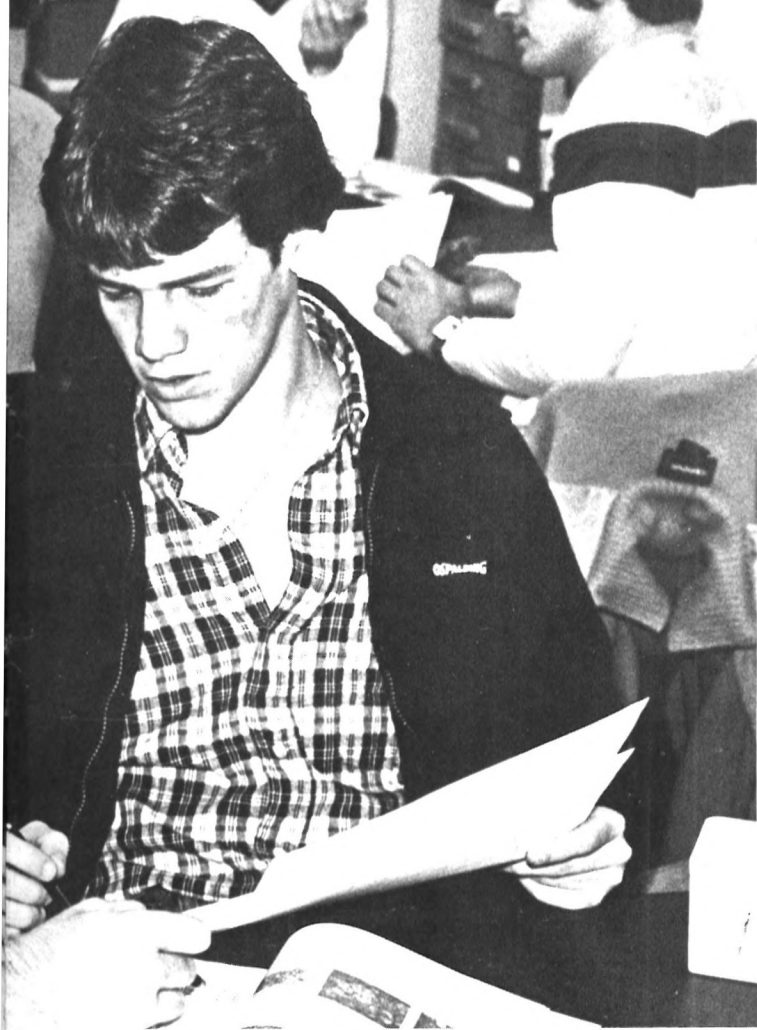
## Certificates Up Minor Popularity

Every student at Georgia Tech must take courses offered by the College of Science and Liberal Studies. The college is divided into eight degree-granting schools and seven departments which compliment degrees granted by the other colleges at Georgia Tech.

The minor's certificate, made available by the Modern Language and English Departments, enables students to round out an otherwise technical education. Additionally, the School of Social Sciences provides minor certificates in all five of its divisions. Both of these programs are popular among students wishing to acquire a more thorough education while pursuing a technical career.

*TOP, LEFT TO RIGHT:* The identification of minerals is not always easy. A water bath is used to melt a solid chemical during a lab. *BOTTOM, LEFT TO RIGHT:* Joe McGuire checks over his program to debug it. Ann Corey assists her instructor in an osmosis experiment. Dr. Henry S. Valk, Dean of the College of Science and Liberal Studies. Cadet Pere listens intently during ROTC class.







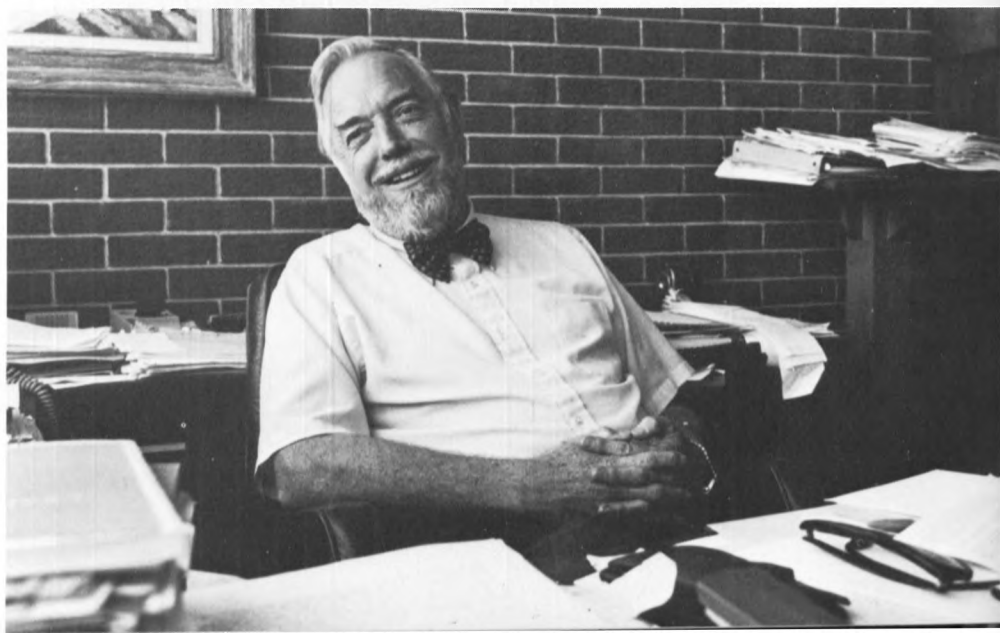
## Job Market Prospers Due to Environmental Concern

Georgia Tech's tougher entrance requirements have a major effect on the School of Biology. Although the undergraduate enrollment of the school dropped significantly, students majoring in biology tend to complete their degree work. In the graduate department enrollment has increased in the past few years and final approval from the Board of Regents is expected soon for the proposed doctoral program in biology.

The future looks especially bright for biology graduates. The job market is expected to grow due to huge increases in the environmental impact monitoring and the genetic engineering fields.

Biology graduates are accepted in many diverse fields; many go to medical or dental school, and every dental school applicant from Georgia Tech's biology program has been accepted. Other students with a Bachelor of Science in Biology go on to master's or doctoral programs, sometimes in disciplines other than biology. Access to jobs in biology increases with a graduate degree.

A strong asset of the school is the faculty members, who can boast an enormous publication record. A current research project involves the antibody approach to cancer treatment. Another project is concerned with very sophisticated neuro-biological probing of the development of the nervous system in the fetal mouse. The biology researchers are armed with a wide array of impressive equipment including scanning electron microscopes, an automated gamma counter, and a cell fractrometer. Because of the presence of strong research endeavors the faculty has been able to secure federal research grants thereby insuring a developing school.



## CHEMISTRY

# Research Benefits Many Agencies

Due to the burgeoning growth of the chemical industry, graduates of the School of Chemistry have numerous opportunities for future careers awaiting them. Because their degrees fulfill the more demanding recommendations of the American Chemical Society, Tech graduates have that extra edge needed to compete for better jobs and higher salaries.

Yet not all graduates take advantage of the available positions. According to Dr. Aaron Bertrand, the school's director, only one-third of those with bachelor's degrees move directly into the corporate sector. The remainder are divided between graduate school and medical school. The majority of those in postgraduate study attempt to earn doctorates.

In tandem with the wide-ranging undergraduate curriculum, the school has a strong program of research projects that serve to extend knowledge and to support the school with first-rate equipment.

Agencies benefitting from Tech's projects include the Centers for Disease Control, Emory University's School of Medicine, the Medical College of Georgia, and Tech's Chemical and Electrical Engineering Departments. Topics include the testing of active compounds in marijuana for their effect on glaucoma and theoretical research that may revamp current thinking involving important reactions in organic chemistry. This latter project, should it fulfill its theorized potential, would have worldwide significance.

As long as America's need for increasing chemical research and technology continues, there will be a need for chemists. Tech is committed to providing enough trained graduates to fill that need.

*TOP, LEFT TO RIGHT:* Co-ed investigates the microscopic world of amoebas. Dr. J. Aaron Bertrand, Director of School of Chemistry. *BOTTOM, LEFT TO RIGHT:* Dr. John W. Crenshaw, Jr., Director of School of Biology. Freshman performs a titration experiment.





# Communication Skills Essential for All Programs

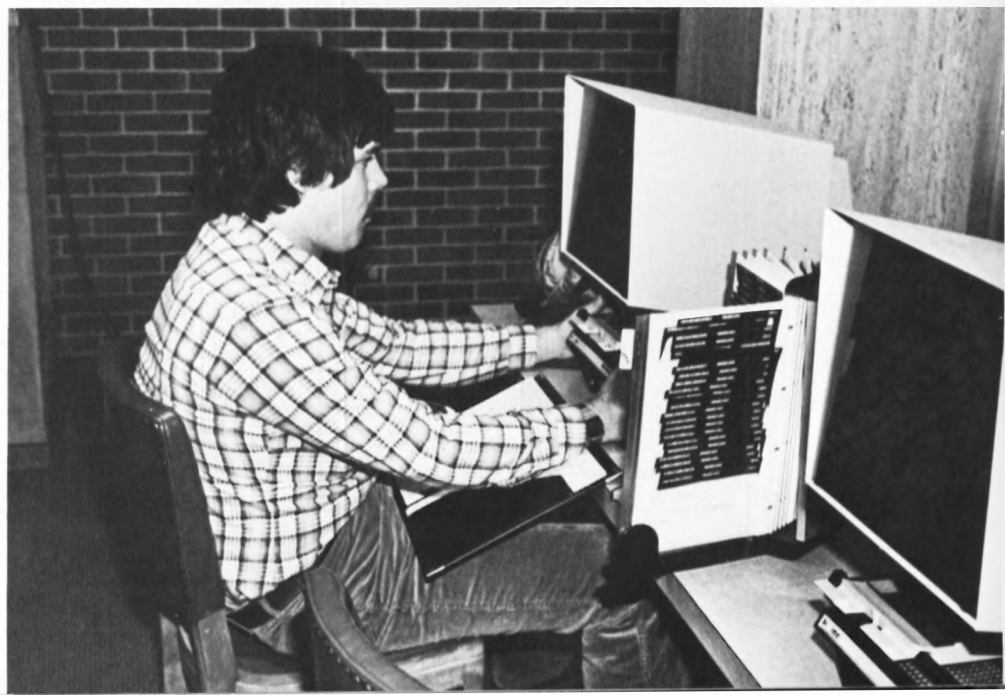
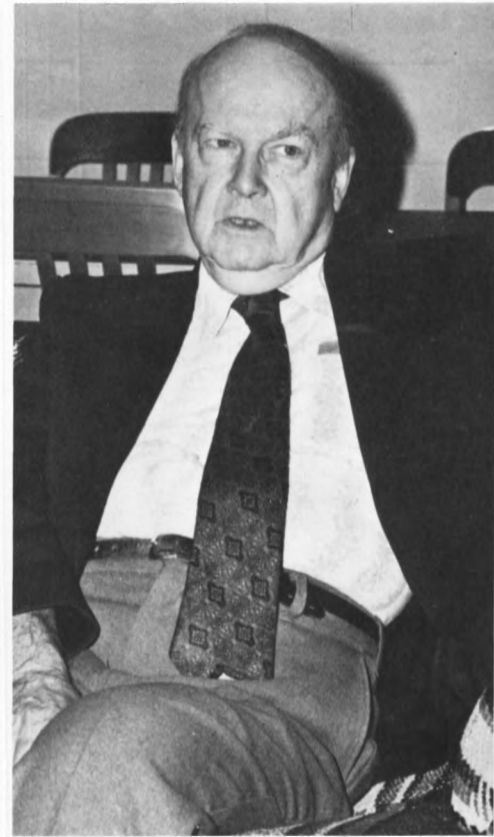
Faced with a student body well versed in most aspects of technology, the English Department has the massive task of educating the students to the uses and nuances of the English language. The ability to write well is a necessity, and through a series of freshman composition courses, the department hopes to impart to the potential engineer the importance of good communication skills. The popular certificate in Technical and Business

Communication lets students hone communication skills and focus on the writing style used in the business world. The certificate is attained by completing satisfactory work in five junior level courses.

Aside from the need for good communication is the need for ethical education. This education can be obtained through literature appreciation and humanities courses. The current demand for upper level literature courses studying such

authors as Chaucer, Shakespeare, and Faulkner indicates a renewed interest in the classics. Plans for a certificate in literature are near completion; to obtain this certificate, a student must take 15 extra hours of literature above the already required 18 hours.

The faculty is encouraged to do research in their specific field, for this work improves both the teacher and his awareness of developments in his field.



## Petro Industries Seek Graduates

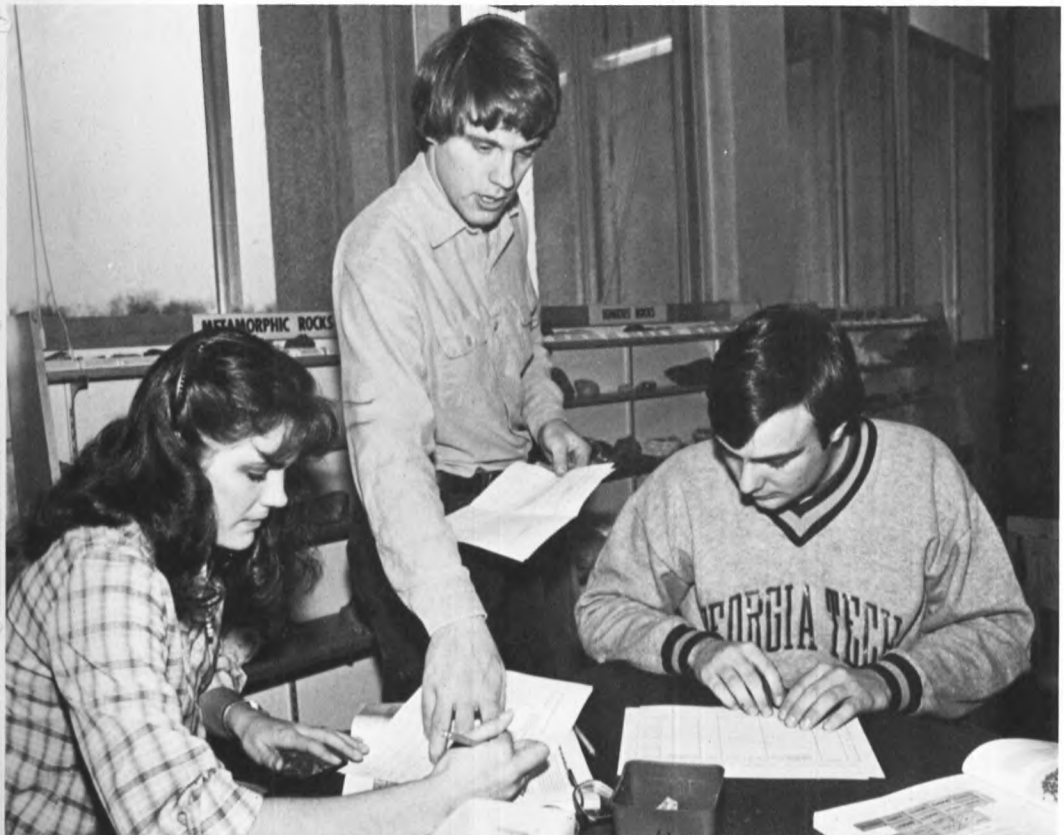
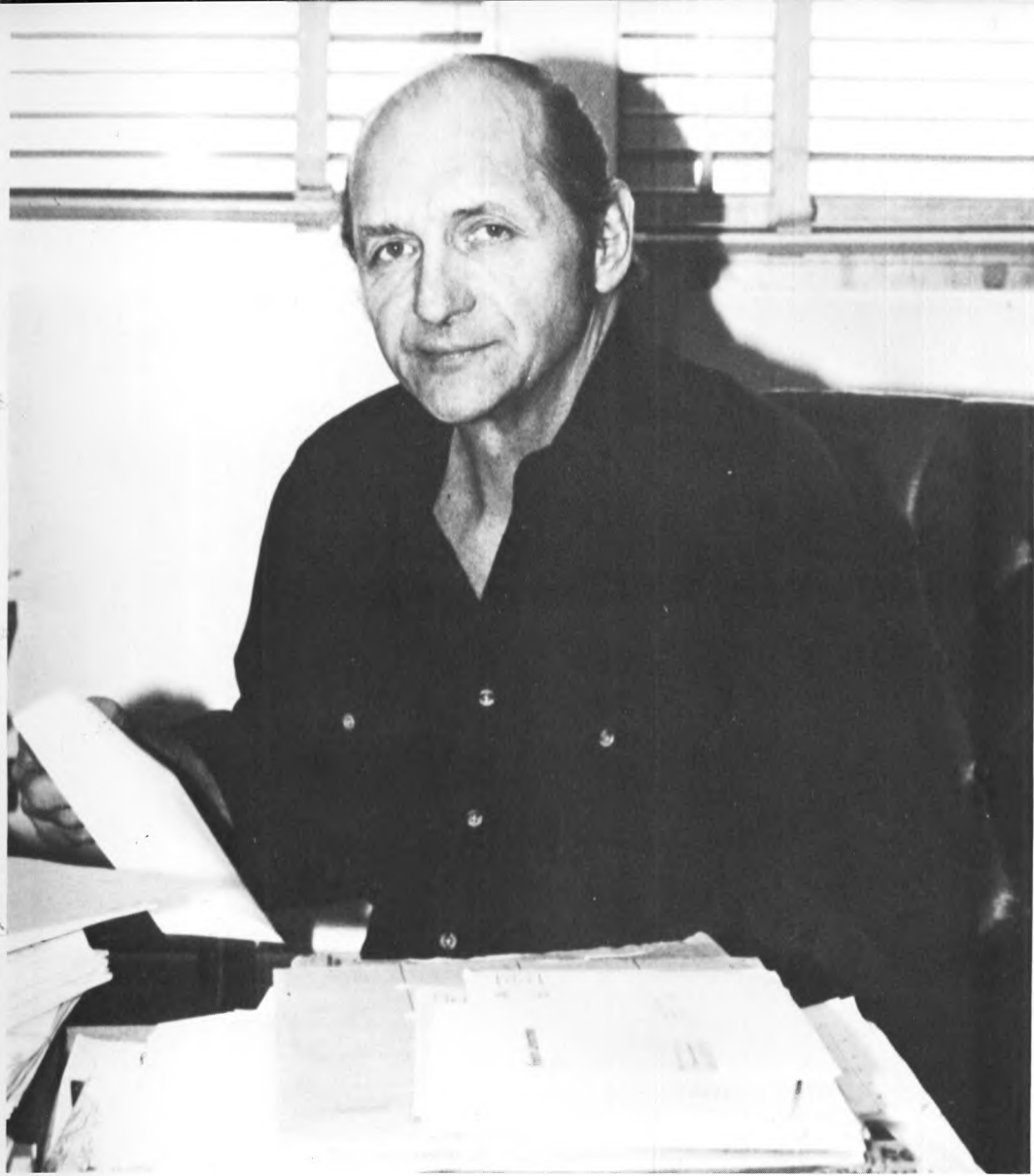
Since its beginning a decade ago, the School of Geophysical Sciences has come to stress the necessity for knowledge in basic science as well as the earth sciences. The traditional graduate program concentrates on the earth sciences and geology. Tech's program however insists on students' having a knowledge of a basic science such as physics or chemistry, and a more concentrated aspect of earth science. Dr. Charles Weaver, director of the school, pointed out the positive results of producing a physicist who deals with the physics of the earth, rather than a geologist involved in the physics of the earth.

A curriculum such as this gives Tech students an edge in a very competitive job market by virtue of having additional math and science courses. Even though almost half of the Geophysical Science graduates go to work for oil companies, the flexibility and diversity of knowledge enables the graduate to gain jobs in a variety of areas.

A full range of areas of concentration are provided in both instruction and research. Geochemists are studying organic materials phenomena in coastal waters, while seismologists are monitoring earthquakes and their effects on dams in Georgia and surrounding states. Atmospheric specialists within the school are involved in analyzing problems of ozone distribution and atmospheric pollutants.

With over seventy students enrolled in the program, future growth is limited only by the physical availability of classroom and lab space. Dr. Weaver has noted that being scattered across the campus in three different buildings has deprived the school of cohesiveness necessary for rapid academic development. In spite of this problem, future growth is foreseen in the areas of radioactive waste disposal, bio-geo-marine chemistry, and data processing applications.

*TOP, LEFT TO RIGHT:* English Lab is used to write practice Regent's Tests. Dr. Karl M. Murphy, Director of English. Dr. Charles E. Weaver, Director of Geophysical Sciences. *BOTTOM, LEFT TO RIGHT:* English papers often require library research. Joe Collins identifies different minerals with his lab group.





## Remodeling of Computer Center Improves Facilities



With the invasion of computer technology into all aspects of everyday life, it is not surprising that the number of students enrolled in the Department of Information and Computer Science is growing at a yearly rate of twenty percent. To meet this increasing demand, five faculty members have been added to the staff. Students receiving a degree in information and computer science are in great demand, for there is a shortage in business and industry of people with programming or system design training.

A new system of teaching the basics of programming language is being introduced in the school. Director Raymond E. Miller feels that the system whereby the student uses an interactive terminal programmed with a learning package will be

a real aid in learning the subtleties of computer language. Coupled with this development is the introduction of a series of uniform courses in programming.

The Rich Computer Center was revamped to improve access to the computer facilities by relocating distracting punch card machines away from the terminal area. The addition of several express terminals greatly aided those who needed a terminal for very short periods of time.

In order to better train future programmers in all aspects of information collection and retrieval, the department operates the Computer Systems Laboratory, and the Human Information Processing Laboratory.





## Mathematics

# Department Joins Co-Op Program

In order to better serve students from the dual viewpoints of a major school and service department, the School of Mathematics introduced new innovations during the past year. One of these now allows undergraduates who choose to major in mathematics to join the cooperative education program and receive job-related training as do their engineering counterparts.

To cope with the need for computers in many classes, television monitors were installed which allowed whole classes to view information at one time. Dr. Les Karlovitz, director of the school, hopes to improve these computer aids in the larger classrooms by working with the Physics Department on a projection system for their lecture halls.

The firm commitment of the School of Mathematics toward the students can be found in the growing undergraduate complex. Here there is a lounge where all students may study, do homework, or just have a few moments of rest. The Math Lab gives tutorial help with an emphasis on a one-to-one student-teaching assistant ratio. Future plans include an expansion of this lab and the addition of more computer terminals so that interested students have opportunities to probe deeper into ideas that were introduced in class.

The aim of the school was that these teaching methods will permit their graduates to make real contributions in mathematics.

*TOP, LEFT TO RIGHT:* Computer output is diligently searched for the right combination of program steps as a student utilizes an interactive terminal. Software developed by undergraduates is used as a teaching aid. *BOTTOM, LEFT TO RIGHT:* Dr. Raymond E. Miller, Director of School of Information and Computer Science. Dr. Les Karlovitz, Director of School of Mathematics.





## Student Interest Results in More Course Offerings



The increased presence of international corporations has created a need for multilingual engineers. Consequently, Tech students have realized the practicality of learning a foreign language. Courses offered reflect the interests of the international science and business communities.

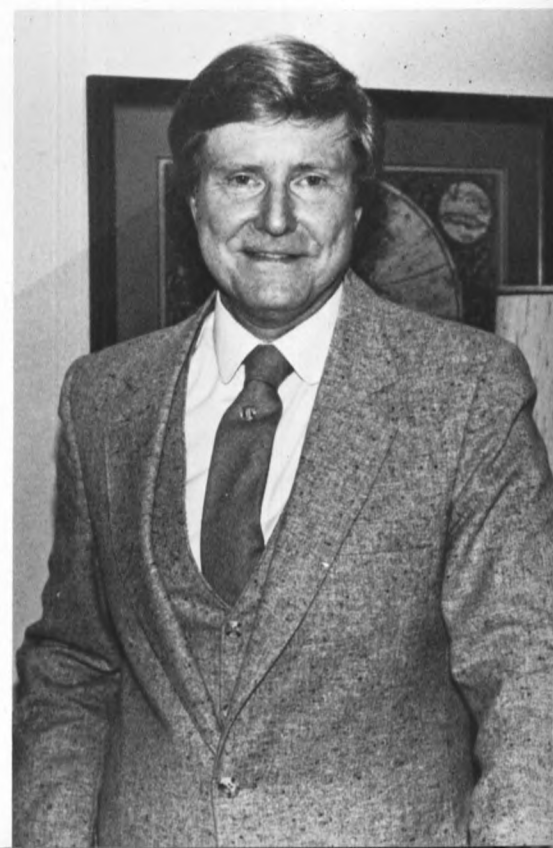
This surge in popularity is reflected in department enrollment. The number of students taking modern languages has doubled in the past four years. In an average quarter, fifteen hundred students participate in foreign language courses. Additionally, half the student population will have had at least one modern language class during their stay at Tech.

Additional course offerings reflect the growth of student interest. Italian was introduced into the curriculum this past year, and Japanese and Chinese are being considered as additions for future quarters.

being considered as additions for future quarters.

The department is rounded out by one of the oldest and largest programs in the State of Georgia which teaches English as a foreign language to international students. Intensive English courses handle two hundred students per class meeting twenty-five hours a week. Foreign students of various national origins are combined in one class with English as the only spoken language. After successfully completing this course, foreign students are able to enter the mainstream of education at Georgia Tech.

*TOP, LEFT TO RIGHT:* Instructor reads aloud in an intensive English course. A Spanish student listens intently in lab. Mr. Gregory Colson, Director of Music. *BOTTOM, LEFT TO RIGHT:* Dr. Louis J. Zahn, Director of Modern Language. The band entertains at halftime.





## MUSIC

# Department Encourages Creativity

One of the disadvantages of a technically oriented school is the lack of opportunity for the pursuit of individual interests in nontechnical areas. Students with an interest in music are able to expand their talents through participation in the student government sponsored Department of Music centered at the Couch Building in Area III. Course offerings allow students to earn humanities credit while expressing themselves in a variety of vocal and instrumental groups including the Chorale, Pep Band and Jazz Ensemble.

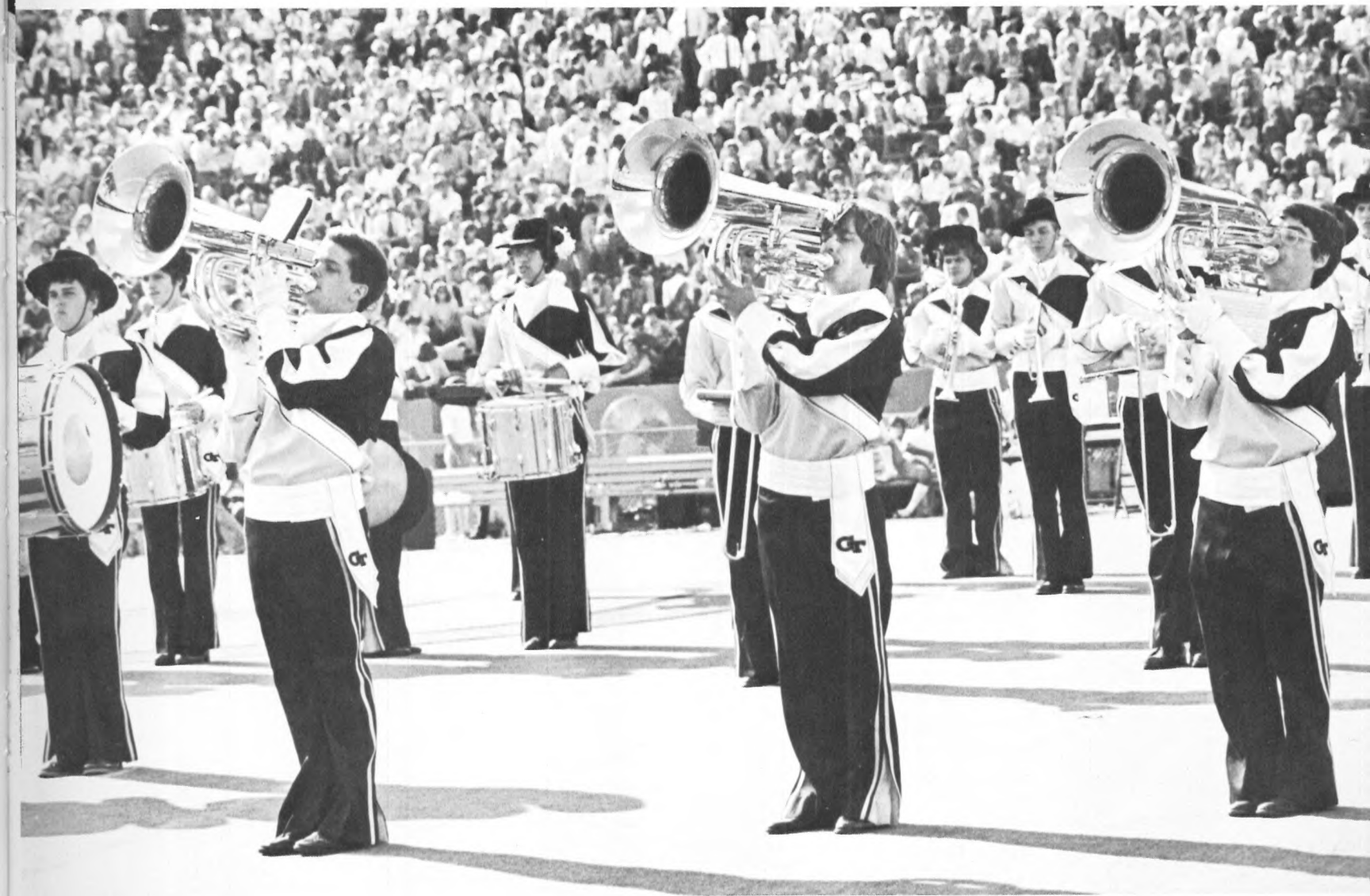
The Chorale, chartered in 1908, has grown to include almost seventy members. Although relatively unknown on campus, the group has attained popularity in the Atlanta community. The singers' plans for appearances included the Atlanta Yacht Club, a televised service at the Grace United Methodist

Church, and a performance with the Atlanta Symphony Orchestra.

Spreading the tradition of "Ramblin' Reck," the band and pep band strive to encourage school spirit at pep rallies, ball-games and other campus events.

The most recent addition to the department is the Jazz Ensemble, under the direction of Ron Mendola. Created in response to increased interest in modern jazz, the ensemble interprets works of contemporary jazz artists.

The Jazz Ensemble, Band, and Chorale combine for a joint concert in the winter in an attempt to spread their enthusiasm and gain more support. While participants derived their greatest satisfaction from creative expression, their activities helped maintain a diverse cultural element in an otherwise technical atmosphere.



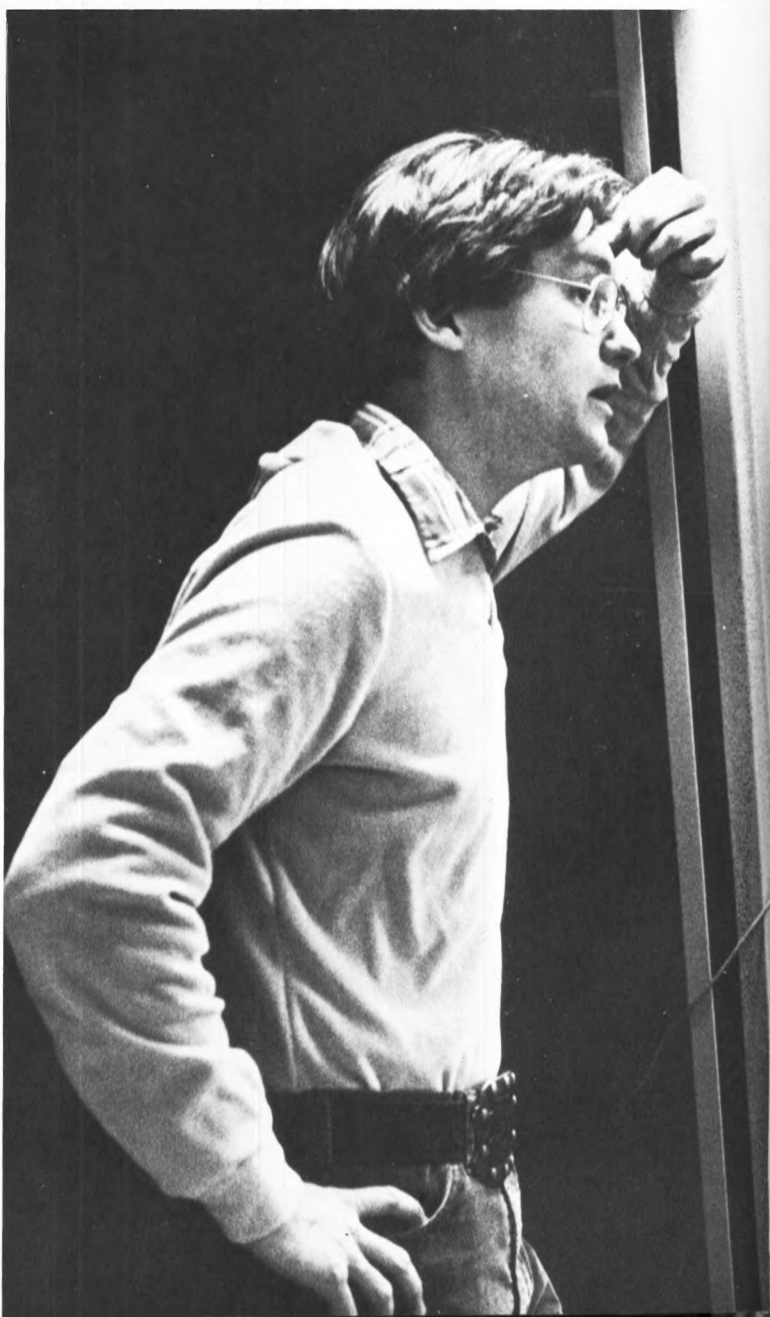
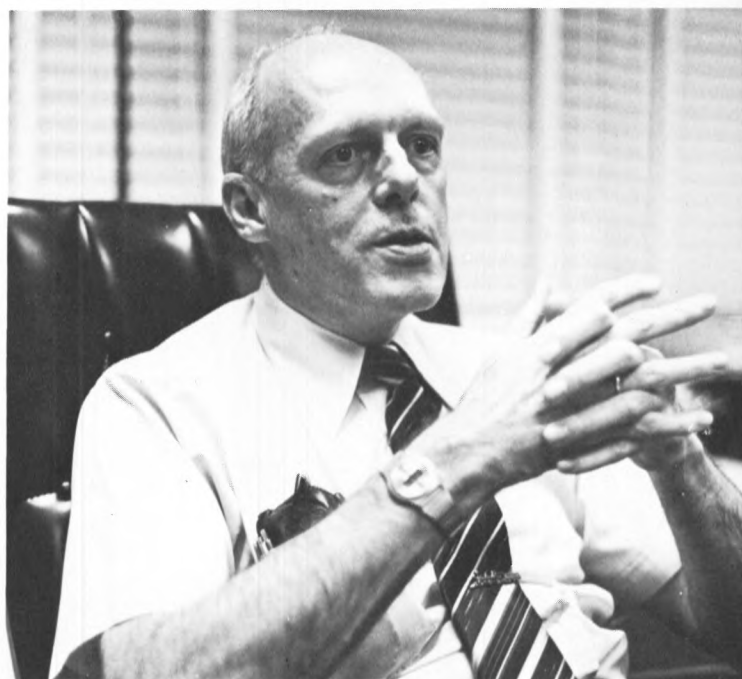


## Emphasis Shifts to Up Classroom Experience



Increased enrollment in the school's introductory classes has severely strained the resources of the School of Physics. In an effort to reduce the strain on both the faculty and facilities, the responsibility of supervising labs and grading homework has been shifted to graduate students. This shift has allowed professors to concentrate on teaching more specialized courses within the school thus making the students' classroom experience more beneficial.

The field of applied physics has experienced growth in recent years. The number of graduate students, as well as the amount of research, is on the increase. Current physics graduates number approximately 60 with 30 percent working on doctoral thesis research. Many graduates seek jobs in fields ranging from Microwave spectroscopy, nuclear physics and solid state physics to elementary particle theory, statistical mechanics and x-ray and neutron diffraction. Throughout the school, research continues in the areas of optics, bio-physics, laser technology and atomic collision in a continuing effort to find solutions to some modern problems.



## PSYCHOLOGY

# New Options Increase Flexibility

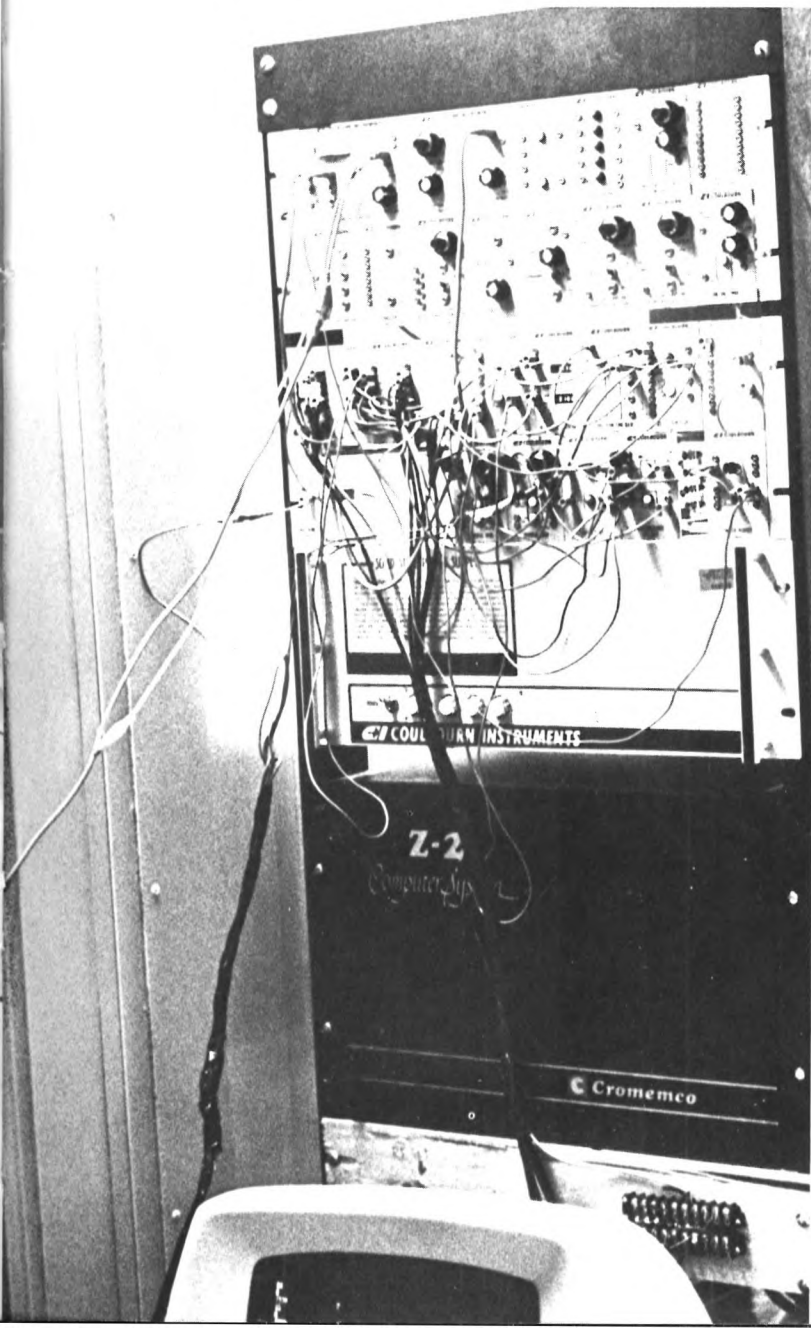
Some of Tech's most popular electives are the courses offered by the School of Psychology. The courses help undergraduate students broaden their education by understanding some aspects of behavioral science. Although it is an elective that will put them three hours closer to graduation, students realize that an awareness of psychology will help them in future careers.

The School of Psychology offers three curriculum options. The newest option often selected by pre-med and pre-law students offers the most flexibility for specialization. The second, more technical option, stresses quantitative and experimental approaches to psychology. Both of these options may be applied toward obtaining a teaching certificate from Georgia State University. The third option is designed for students who wish to com-

bine the study of psychology and linguistics.

A large amount of sophisticated equipment, used to study human behavior, is located in the basement of the D. M. Smith building. The equipment and labs are used for both instructional and research purposes by the School of Psychology. The opportunity to visit foreign countries and to study animal behavior are a few of the interactions available outside the classroom. The school is formally associated with the Yerkes Primate Research Center, the Georgia Mental Health Institute, and the Georgia Retardation Center.

*TOP, LEFT TO RIGHT: A receiver is used in studying microwaves, Dr. C. H. Braden, Director of Physics, Dr. E. H. Loveland, Director of Psychology. BOTTOM, LEFT TO RIGHT: Rhea Eskew monitors equipment in a noise lab. Dr. Greg calls up a simulation program.*

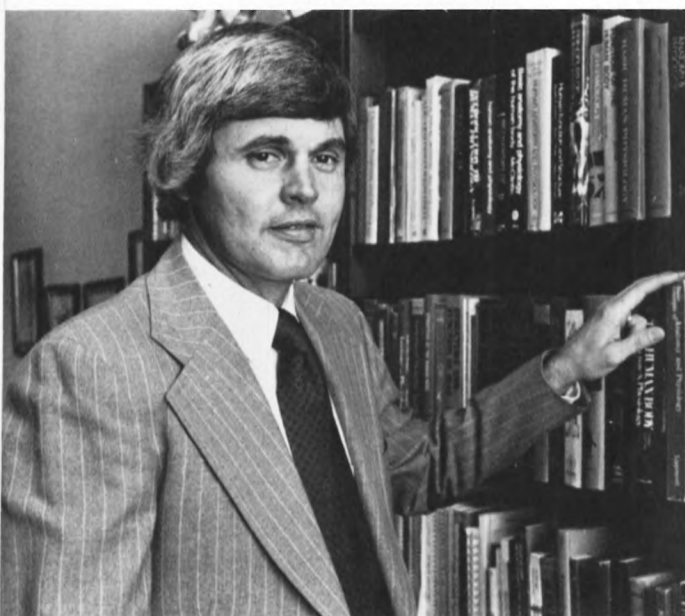
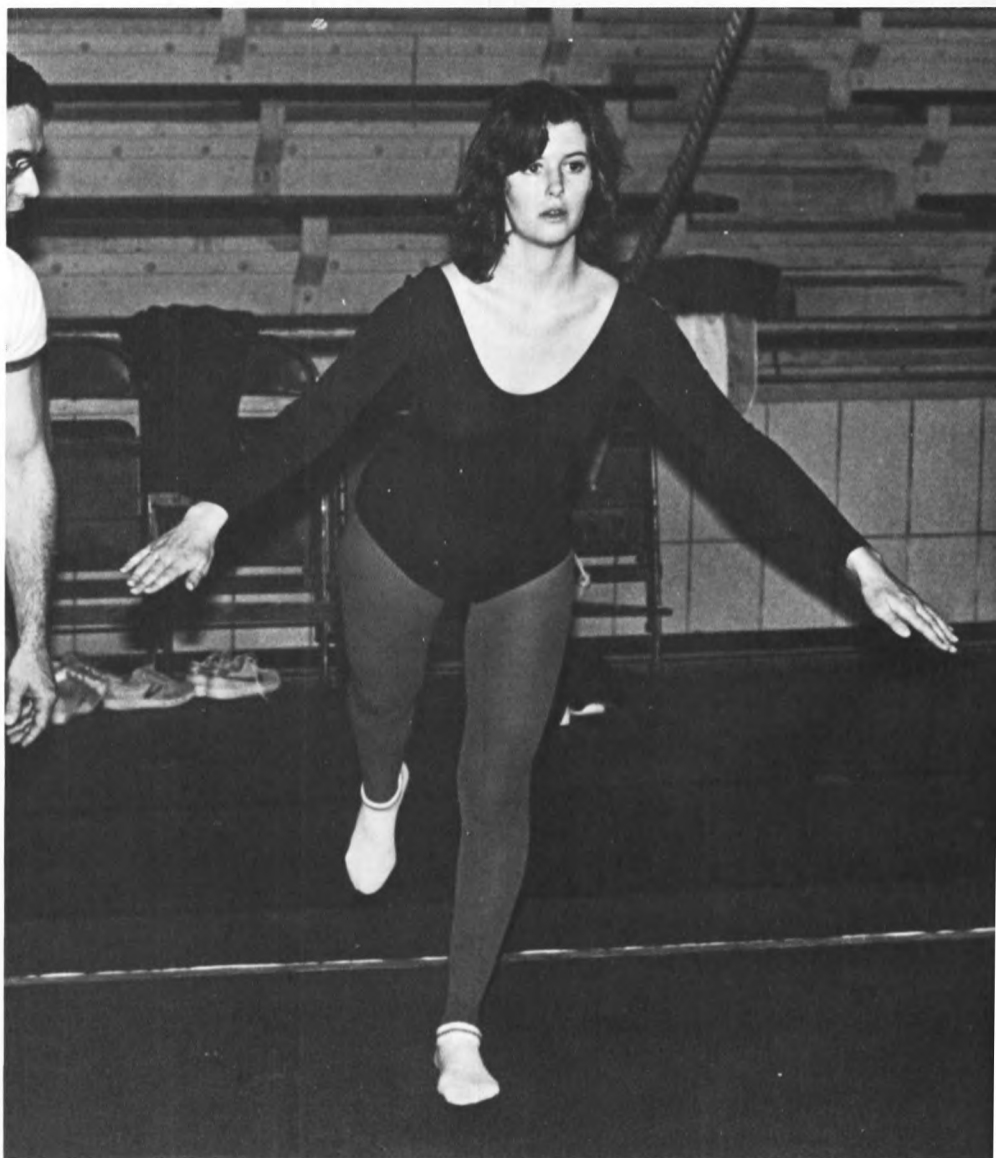




## New Fitness Evaluation Course Becomes Requirement

One of the major goals of the Physical Education Department is to increase health awareness within the Georgia Tech community. "Fitness, Theory, Evaluation and Conditioning," a recently approved course will be added to the freshman physical education requirements. The Human Performance Laboratory, finished with aid from the Clark Howell fund, will be a major part of this course. Fitness evaluation and planning will be implemented by the lab course, which gives individual fitness tests and prescribes personally tailored fitness plans for each student.

The department is also concerned with the effects of stress on both the faculty and students of Georgia Tech. Exercise psychologists specialize in evaluations of man under physical stress and use the full instrumentation of the department laboratories to determine vital signs. There is gas analysis equipment to test oxygen consumption and a hydrostatic weighing system to measure the percentage of fat in total body weight. For the faculty an adult fitness program is being further expanded. This supervised exercise program also conducts various tests, including a blood test which gives twenty-six results to get a profile of the body's metabolism. Through these programs the department hopes to impart a renewed interest in health awareness to all members of the Tech campus, thereby insuring a healthier community.



## SOCIAL SCIENCES

# School Offers Master's Degree

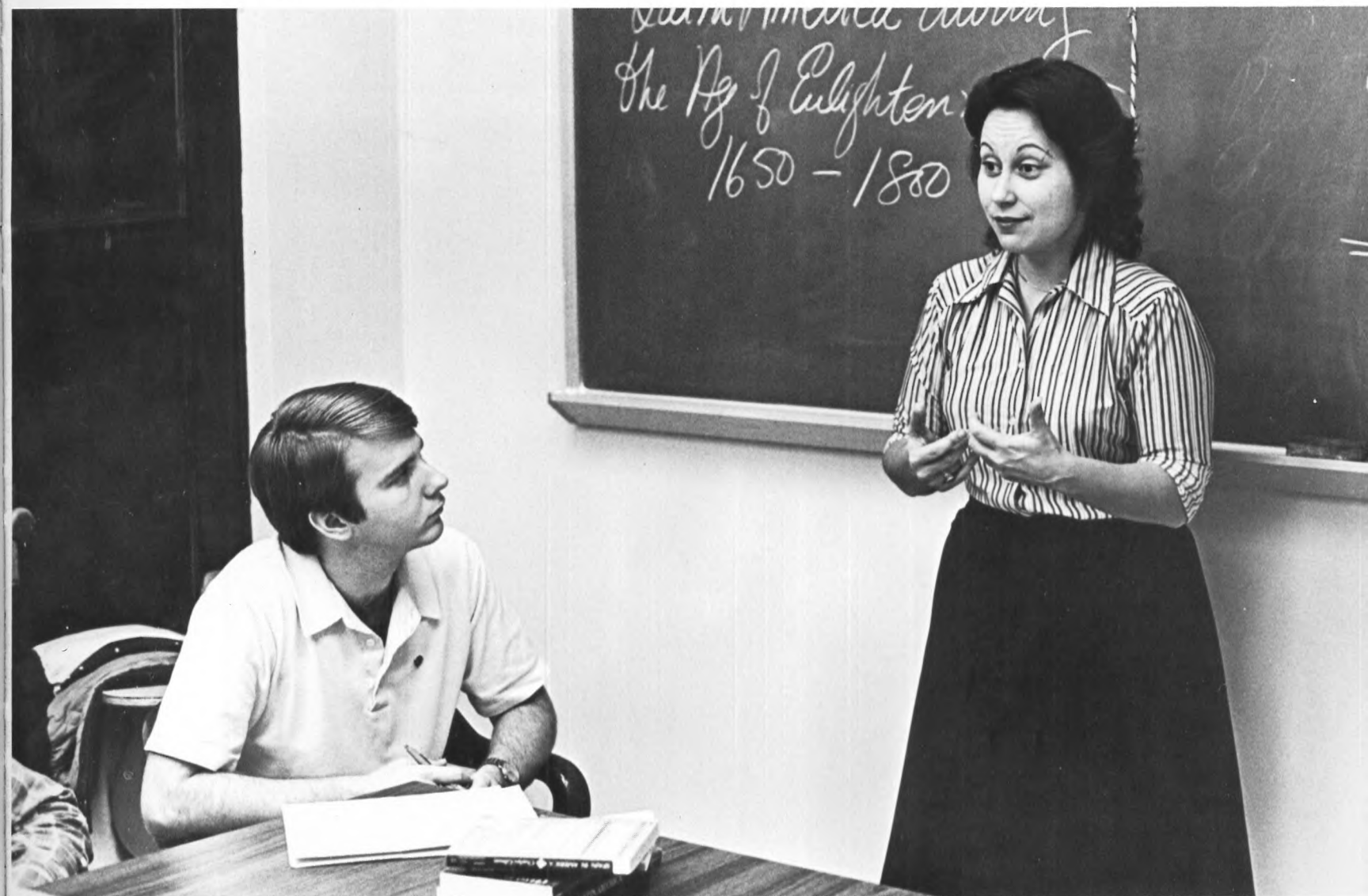
This year's addition of a graduate program transformed the old Social Science Department into the School of Social Sciences. Now students can earn a Master of Science in Technology and Science Policy degree. Dr. Daniel Papp, director of the School, is actively seeking Georgia Tech graduates as well as students from other technical schools for this new program. The new course work will deal with the formation of policy and how social scientists work with the industrial community. Furthermore, this program complements a degree in Engineering or Management, and allows the graduate to become a member of the business community.

The nature of the social sciences is one of constant change; this necessitates a regular updating of curriculum and even teaching methods. Because of this fact, plans are now underway to install new

teaching procedures that were recommended by a project of the Exxon Educational Foundation.

Even with the advent of school status and graduate programs, social science remains dedicated to the undergraduate student. A certificate of specialization in one of the school's four disciplines, history, philosophy, political science, or sociology is still available at the undergraduate level. Freshman introductory courses are being enlarged to handle the increased student awareness of the need for social studies as they relate to a technical society.

*TOP, LEFT TO RIGHT:* Balance is essential in gymnastics. Dr. Daniel S. Papp, Director of Social Sciences. *BOTTOM, LEFT TO RIGHT:* Dr. James Reedy, Director of Physical Education. A student struggles with the rigors of drown-proofing. Dr. Diana Velez elaborates during a class on Latin American history.





## Large Number of Cadets Shows Student Patriotism

Participation in ROTC has not been mandatory at Georgia Tech for more than a decade, units, however, continue to thrive on the campus. Each cadet has his own reasons for choosing ROTC and the particular branch of service. However, the idea of patriotism still ranks on the list.

The Air Force ROTC program boasts the largest number of scholarship winners and the third largest total cadets of any non-mandatory detachment in the country. Under the direction of Col. James Priest, the Tech concept is to prepare the future officer for life after commissioning. In order to fulfill this goal, Priest and his staff frequently evaluate their program, altering and expanding aspects of the training as necessary. Two recent additions were increased counseling and added emphasis on communication skills. The additional counseling comes in the form of a field trip for seniors to Eglin Air Force Base where cadets are able to get advice from recent graduates of ROTC programs. The purchase of a video-tape camera and recorder allows the students

the opportunity to see just what they are doing wrong — and right — in their attempts to communicate. Acquired responsibility and traditional comradery remain important in the curriculum.

The Army ROTC program considers locating quality students who will become qualified officers as their paramount duty. Lt. Col. David B. Garvin emphasizes the "way of life" aspect of the unit. In the Army program, the staff is interested in taking care of their cadets in all phases of Tech life. The detachment combines the expected classroom and practical instruction with programs aimed at the less regimented parts of the cadets' life. The unit conducts an extensive counseling program and provides a home-away-from-home atmosphere for leisure hours. This integrated program seeks to provide its cadets with the traits of management and leadership needed to succeed, in the Army or life.

During the past year, the Naval ROTC unit has learned the importance of enduring change. The nine month period found

the cadets in three different locations under three commanding officers. The physical moves were instigated with the demolition of the old Naval Armory. The unit temporarily set up shop in the old Civil Engineering building while waiting for the renovation of their new permanent home, the old Ceramic Engineering building. The personnel changes began fall quarter as Captain George Henson retired. Henson's replacement Captain C. E. Hill remained with the unit for only a few months with Captain Frederick taking over command in March.

In spite of these rapid changes, the aim of NROTC remains constant: to provide a program of academics, leadership training, and extracurricular activities which is the path of cadet growth.

*TOP, LEFT TO RIGHT:* Navy ROTC's improve their drill technique on Grant Field. Air Force cadet concentrates on the weekly topic of discussion. *BOTTOM, LEFT TO RIGHT:* Dallas Wurst leads the Army troops on parade in the area of Rose Bowl Field. Upperclass Naval cadets assemble for roll call and exercises. ROTC Commanders: Lt. Col. James Garvin U.S. Army ROTC; Col. James L. Priest, U.S. Air Force ROTC; Captain C. E. Hill, U.S. Navy ROTC.











# Staff Aids Advanced Technology Development Center



Advanced technology research operations are centered at the Engineering Experiment Station. Co-operation between the 525 scientists and engineers of the E.E.S. and the faculty of the academic schools and departments of Tech are found in projects ranging from solar energy to pollution. Although most of the research operations are for governmental organizations and private industry, many services and facilities are used by Tech faculty and students for institutional research and projects.

In the very near future the E.E.S. will be involved with Georgia's Advanced Technology Development Center (ATDC). New businesses will be offered working space and the expertise of Tech faculty and graduate students as a well trained labor base. With this new complex the State of Georgia should benefit greatly from the attraction of new industries and subsequent employment openings.

*TOP, LEFT TO RIGHT:* Researcher checks contacts on scanners. An ohmmeter is used to test for circuit continuity. Computer printout is used to analyze data. *BOTTOM, LEFT TO RIGHT:* Rabbit's tumor is probed electrically. The controls of a corrosion chamber are adjusted.



## Students Gain Valuable Insight

Since 1912, Tech has offered students the opportunity to combine studies at school with practical work experience in industry through the Cooperative Program. Approximately 2000 students are currently enrolled as co-ops, alternating their studies with work quarters while pursuing a degree. The program is designed so that co-ops work a minimum of six quarters and graduate in five years with a bachelor's degree — cooperative plan in their chosen field. Presently, the program includes students from 16 different major fields in engineering, science, and management.

Many co-ops apply their work-quarter earnings toward school, and, as a rule, most are able to pay one-half of a quarter's expenses. Also, by gaining first-hand job experience, the student is able to balance the theoretical training at school

with the practical aspects of hands on experience. Often times, this experience with the company will lead co-op employers to offer those students positions of permanent employment upon graduation.

In these ways, co-op students are able to acquire insight which could never be obtained from the classroom or from textbooks. Their on-the-job efforts benefit them both in school, and long after graduation, thus demonstrating that the program is a very attractive means of getting an education at Tech.

*TOP, LEFT TO RIGHT:* Student adjusts controls while doing Biomass research. Careful attention to detail is important in drafting. *BOTTOM, LEFT TO RIGHT:* Cancer research is carried out with the aid of a computer and a rabbit. A co-op repairs a circuit board in the Engineering Experiment Station. James G. Wohlford, Director of the Cooperative Division, advises a Chemical Engineering student about prospective co-op job interviews.







# Graduation Transports Seniors into World Realities

Graduation is the symbolic transition from college to career. The Tech senior, waiting to go forward and pick up that hard-earned diploma, sees this symbolism in many aspects of the ceremony.

On one hand, are the representations of Tech herself. Old White and Gold are all around. Across the podium sit the faculty members, one from each discipline, physically representing every academic aspect of the campus. Tech's unique traditions are further enhanced by the singing of the "Ramblin' Reck," instead of the usual "alma mater."

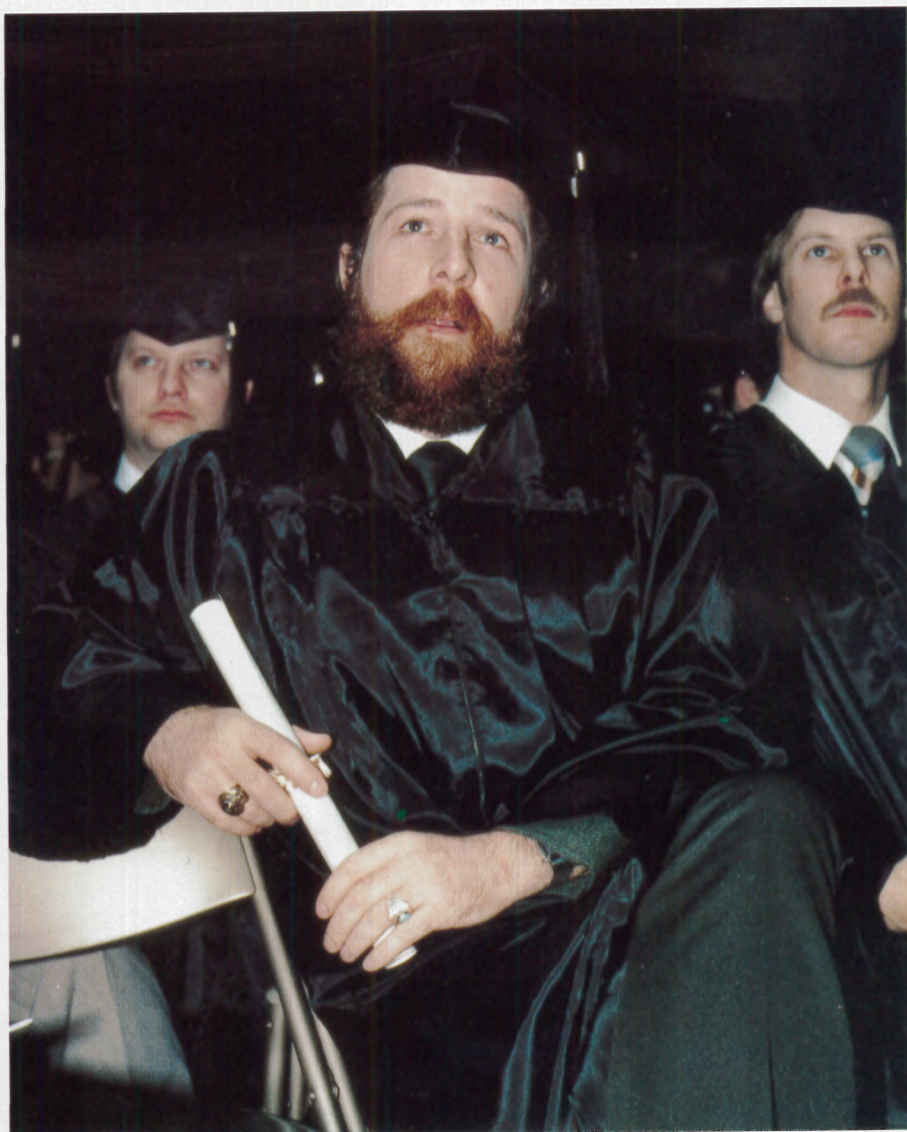
On the other hand are the representations of the world ahead. The diploma, the "ticket to tomorrow," is placed in the hand by President Pettit. The president of the alumni association welcomes the graduates to its membership rolls along with those from years past.

Walking out of the coliseum, the transition is complete. The celebration begins, the cap and gown go into the closet, the Tech graduate starts a new life in a new world.

*TOP, LEFT TO RIGHT:* Beatrice Leyba, Jimmy Zafares, and Frank Zorc celebrate the end of their college careers. The paper is worth all the work. The master's sash is draped over a graduate student. *BOTTOM, TOP TO LEFT:* A reception is held on President Pettit's lawn. A youngster is awed by graduation's magic. Students listen intently to the commencement speaker's message.









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# Anak

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## HIGHEST SENIOR HONORARY

Established in 1908, ANAK recognizes students for their leadership ability, personal achievement and strong character. Membership in the society is the highest honor a student can receive while at Georgia Tech. ANAK is unique in that meetings and activities are known only to its members.

Thomas Blake  
Karl Green  
Isaac Champagne  
Robert Holloway  
Mark Loch  
Jack Markwalter

Noelle Marier  
Ben Mathis  
Kelly McKeague  
John O'Callaghan  
David K. Scott  
David Vogel

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# Omicron Delta Kappa

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## NATIONAL LEADERSHIP HONORARY

Founded in 1930, Georgia Tech's chapter of Omicron Delta Kappa honors juniors and seniors who have proven themselves outstanding in the areas of

academics, athletics, social service, journalism and creative and performing arts. Only distinguished leaders with at least a 2.8 GPA are considered for membership.

Dr. Walter Bloom  
Dr. James Bynum  
Mr. Bill Cherry  
Dr. Vernon Crawford  
Mr. William A. Curry  
Dean James Dull  
Dean George Griffin  
Dr. James Herod  
Dr. Harold Johnson  
Dr. William Lnenicka  
Dr. Paul Mayer  
Dr. Joseph Pettit  
Dr. John B. Peatman  
Dr. Joseph Penetcost  
Mr. Nelson Rodgers  
Dr. Peter Sherry  
Dr. James Stevenson

Dr. Miller Templeton  
Dr. James Walker  
Dr. Paul Weber  
Dr. John White  
Dr. William Woolf  
Dr. James Young  
Susan Bailey  
Patricia Becker  
Lisa Berson  
Tom Blake  
Julie Ellis  
Dan Finelli  
Sheldon Fox  
Doug Fuller  
Bill Gartner  
Garry Gauthier  
Chris Gorby

Lauriston Hardin  
Bob Holloway  
Mark Hemmer  
Ralph Hornbeck  
Steve Justice  
Ken Ko  
Frankie Little  
Mark Loch  
Jack Markwalter  
Noelle Marier  
Ben Mathis  
Jim McFarland  
Chris McGahey  
Kelly McKeague  
Kathy Miller  
Dick Odum

Linda Podger  
Juan Prieto  
Steve Sanders  
Charles Shockey  
Bob Spretnak  
Tommy Thompson  
Susan Velandar  
Cindy Vitale  
Dave Vogel  
Teresa Volmar  
Williams Wells  
Amy Wepking  
Greg White  
Joseph Whitiker  
Jim Williams  
Mike Williams

# 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. To be considered for membership, candidates must rank in the top ten percent of their class as well as display good character and superlative academic achievement.

Jeffery Alan Aaron  
Robert F. Arnold  
Marsha Lea Arrendale  
Paul James Ausbeck, Jr.  
Donald Wayne Bagwell  
Barbara E. Ballas  
Brian Robert Barber  
Patricia Elizabeth Becker  
Daniel Behr  
David Ross Benator  
Jimmy Chancy Black  
Thomas Gregory Bradberry  
David H. Bridgers  
Cynthia Grace Brinkley  
Kenneth Morgan Brooks, Jr.  
Clay Matthew Bryant  
Roger Buch  
Russell W. Buchanan  
Kevin Lawrence Butt  
Mark Smith Byers  
James E. Cartwright, Jr.  
Vincent S. Chung  
Joseph Michael Clarkson  
Mitchell Ray Cline  
Kerry Warren Cozad  
John Jay Crittenden  
William H. Deen  
Russell K. Denney  
Roxanne Drago  
Peter Warren Estelle  
Paul Timothy Fastenau  
Keith C. George  
Lisbeth Randol Gibson  
Clinton D. Gilbreath  
Christopher F. Class  
Tracy Ruth Corton

Michael George Guler  
Robert Alan Hall  
Peter V. Hansen  
Charles Lee Harris  
Perry Leigh Heedley  
Mark Carl Hemmer  
Scott Hoenig  
Robert Bryant Holloway  
Eric P. Jack  
David Alan Kemp  
Marion Mark King  
Robert Elford Livingston  
Martin Randall MacBlane  
H. Anne Marsden  
Peter F. Martin  
Juan Roberto Martinez  
Angela Erin McCormick  
William Norris McKenzie  
William J. S. McLeomore  
Michael J. McNulty  
Elizabeth Ann Miller  
Kathy Alisa Miller  
Jay Steven Miller  
William Morley Mizell  
Thomas Edward Morgan, Jr.  
Ronald A. Morrison  
Claire Louise Moxley  
Jeffrey P. Murray  
Robert David Nabow  
Terrye Allyn Nipper  
Thomas Joseph O'Brien  
William Max Pavlovsky  
Ronaldo Pels  
Jose Luis Pere  
Laura Kerstin Pitts  
William V. Powell, Jr.

Harry Wayne Presley  
Lynn M. Ramsey  
Roderick Kirkland Randall  
John D. Ratliff  
Donald E. Roett, Jr.  
Laurence Ralph Riddle  
Emmanuel P. Rivas, IV  
Paul David Robbins  
Steven C. Sanders  
Edward Schepps  
Mary Althea Seckinger  
Timothy David Semones  
William Gerald Simpson  
Brock Stanton  
Maryhelen Stevenson  
Steven W. Stewart  
Hon Wah Tam  
Samuel Albro Taylor  
John Christopher Thompson  
Sharon B. Thornley  
Paul Alan Thurner  
Alfredo Trujillo  
Luis J. Varela, Jr.  
Susan Velander  
Paula Marie Vergamini  
Teresa Anne Volmar  
Frank David Wagner  
Rebecca Barkley White  
Brian Daniel Whittemore  
Gregory S. Widell  
B. Suzanne Wiley  
Tony L. Wilkey  
Joseph M. Wilson  
Sanford Lloyd Wilson  
Michael Harris Yount  
Arthur L. Zwern



# Tau Beta Pi

## HIGHEST ENGINEERING HONORARY

Engineering students who show superior scholarship and leadership as well as integrity and breadth of interest, both 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.

Judy Lynn Adams  
James R. Aldrich  
Michael Ray Alexander  
Katherine A. Alland  
Jeffrey Robert Appling  
Lyonel A. Arias  
Robert Furman Arnold  
Marsha Lea Arrendale  
Stephen Attaway  
Paul J. Ausbeck  
Shahriar Ayatollah  
Ernest Bahm  
Susan Fern Bailey  
Nelson Carlton Baker  
Barbara Ellen Ballas  
David Edward Ball  
Brian R. Barber  
Grant P. Barton  
Kerry Gordon Batts  
Patricia E. Becker  
Michael T. Beckham  
Danny Behr  
David R. Bell  
Eric Carl Berkobin  
Hector Bermudez  
Roger Odis Blackwell  
Michael L. Blyler  
Steven Karl Boecler  
Mary F. Bordonaro  
Kevin C. Boteler  
Jack Monroe Boyd Jr.  
Buck Omar Bradberry  
Thomas G. Bradberry  
Daniel H. Bradley  
David H. Bridgers  
Timothy Scott Brookie  
Kenneth M. Brooks Jr.  
Philip Brooks  
Emil W. Brown III  
Clay M. Bryant  
Russell W. Buchanan  
Roger D. Buch  
Edward C. Burdell  
David H. Burgess  
Allan Butler  
Kevin L. Butt  
Joseph Camosy Jr.  
David T. Camp  
Jeffrey A. Cardell  
Edwin Carlsen  
William Richard Carlyon  
Michael R. Carnevale  
J. E. Cartwright Jr.  
Isaac Champagne Jr.  
Wayne K. Chase  
Frederick Chen  
Franco Cimatti  
James Drew Clarke  
Joseph M. Clarkson  
Glenn Douglas Clark  
Emmanuel Gye Collins  
Thomas Riley Collins  
Eligio R. Colon  
Larry William Colwell  
Matthew F. Conner Jr.  
James Couzels  
Kerry Warren Cozad  
Jeff Crittenden  
James Alan Crunkleton  
Bruce Crutcher  
Betty B. Dalton

Daniel H. Darden  
Robert B. Darling  
Mark N. Davidson  
Osvaldo M. J. Delarosa  
Mitchell B. Diamond  
Richard Henry Dickson  
Joseph N. Dinunno Jr.  
Stuart Carter Domeshek  
James M. Dorsey  
Jerry Wayne Dortch  
Cheryl Ann Dotson  
Roxanne Drago  
David R. Dukes  
Douglas Letson Durand  
Jaime Francisco Durand  
Bruce Eisenman  
Julie R. Ellis  
Alec Kaleo Epting  
Peter Warren Estelle  
David B. Etzkorn  
Keith Andrew Evans  
Vaughn R. Evans  
David Michael Fahey  
Paul Timothy Fastenau  
Karen Ann Fay  
Melvin James Ferebee Jr.  
Catherine Ann Fieber  
Yum Leung Fong  
Helmuth R. Forren  
Raymond IV Foster  
Sheldon Fox  
Stephen D. Frazer  
Galen Scott Freemon  
Dennis Michael Friendahl  
Douglas Neal Fuller  
John W. Galella  
Michael P. Gallagher  
Jeffrey Scott Gallinat  
Ricardo H. Garcia  
William J. Gartner  
Daniel Edward Geller  
R. Andrew Gerrick  
David T. Gibson  
Lisbeth R. Gibson  
Geoffrey Gilbert  
James Allen Godsey  
Forrest Webster Goodwin  
Sheila T. Gorman  
Donald Howard Greene  
Joseph Odie Gregg  
Peter D. Griffiths  
Linda G. Griffith  
Christopher Ala Grimmell  
Mark D. Guastaferro  
Mark Lloyd Guenther  
Michael George Guler  
Donald Spyro Gumas  
Gary Neal Hackney  
Michael John Hadsell  
Christopher J. Hall  
Robert Alan Hall  
Marsha R. Hanson  
Philip H. Hardy  
James Robin Harrell  
Charles L. Harris  
Tillman Bagwell Harris  
David Haverkamp  
Steve Anthony Hedges  
Perry Leigh Heedley  
Lily-Ann Zita Heiner  
Stanley D. Hewitt

Lisa B. Hibbard  
Marie E. Hill  
David M. Hitch  
Craig L. Hom  
Ralph W. Hornbeck  
Kevin Hsu  
Billy K. Huh  
David M. Hull  
Joseph W. Humphrey  
Eric M. Jackson  
David P. Jack  
James J. Jaklitsch  
David William Jenkins  
Merrick Andrew Johnson  
Russell B. Johnson  
Theodore L. Jones  
Thomas Jordan  
Mark William Joseph  
Mark A. Kaiser  
Dana W. Karschner  
K. Scott Keen  
Vincent Leo Kegel  
Anthony B. Kehoe  
David Alan Kemp  
William C. Kendrick Jr.  
Richard Wade Kesler  
Galen Kilpatrick  
Marion Mark King  
John S. Kirk  
Betsy Marie Klee  
Ann L. Knickmeyer  
Rebecca S. Knight  
Kenneth David Ko  
Mary G. Krah  
Kevin Kent Krigline  
Eve L. Kuniarsky  
Kathleen A. Kurtz  
Mark Drexel Langenbahn  
Chris Lange  
James Crewe Leathers  
Carol A. Lee  
Michael T. Lee  
Howard A. Leon Jr.  
Lynda F. Lewinski  
Robert E. Livingston  
Tim Kenneth Lockridge  
Charles Londa  
Charles Robert Long  
Timothy J. Louie  
Russell Scott Lowery  
Keith Howard Maberry  
Claudia B. MacDonald  
William F. Mandler Jr.  
John C. Mantovani  
Carl W. Marinelli  
Juan Martinez  
Peter F. Martin  
Stephen Anthony Martucci  
John T. Mattison III  
Christopher E. Matza  
Stacey Gerald McCarver  
Mary Louise McClure  
Angela E. McCormick  
James S. McFarland Jr.  
Christopher McGahey  
Duncan Ewell McGehee  
Robert D. McGinty  
William N. McKenzie  
William K. McKibbin  
Kenneth W. McLain  
William J. S. McLemore

Kimberly L. McMahan  
William J. McNicoll  
Melaine S. Meyer  
Nancy J. Miegel  
Donald Jeffries Miller  
Elizabeth A. Miller  
Kathy Alisa Miller  
David Bryan Mitchell  
Jack C. Mitchell  
William Morley Mizell  
Tyler Clark Montague  
Bryan Banks Moore  
R. A. Morrison III  
John Compton Mosher  
Ted William Moss  
Jorge Alberto Mottoa  
Claire Louise Moxley  
Jeffrey P. Murray  
Robert David Nabow  
Roger W. Nelson  
Terrye Allyn Nipper  
Devorin K. Norwood  
Steven R. Olivier  
Tracy E. Orr  
Carol R. Ostrander  
Henry W. L. Owen III  
Thomas Joseph O'Brien  
John Michael O'Rourke  
Michael Scott Page  
Thomas Abbott Palmer  
Scott B. Pantaleo  
Thomas Clement Parham Jr.  
Colleen Michelle Parry  
Roberto J. Passariello  
Stephen J. Patterson  
William M. Pavlovsky  
Maryk Pellegrini  
Ronaldo Pels  
Paul Perkins  
Mary Ellen Pfister  
Ronald Philipp  
Linda Sue Podger  
Stephen Popielarczyk  
William V. Powell Jr.  
Harry Wayne Presley  
Burt Lee Price  
John J. Rahaim  
Robert C. Ramsdell  
Carlos Ranaldi  
Roderick K. Randall  
Mark A. Randolph  
John D. Ratliff  
Edward Owen Reese  
James W. Reeves  
Andy Register  
Robert Lloyd Rehberg  
Philip Foley Ritchie  
James J. Riticher  
Emmanuel Pierre Rivas IV  
Jorge J. Rivera  
Dennis Roach  
Paul David Robbins  
Emory Braddock Roberts  
Joel A. Rosenfeld  
Christopher Pau Rousseau  
Joseph E. Rumler  
Michael M. Ryan  
Daniel J. Sanford  
John Brian Savage  
Alexander Schepps  
Edward Schepps  
Mark S. Schutz

# Phi Eta Sigma

## FRESHMAN SCHOLASTIC HONORARY

Superior scholastic achievement among college freshmen is recognized through the honor society of Phi Eta Sigma. Founded in 1923 and chartered at Tech in 1930, the society rewards fresh-

man 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.

John Hugie Scogin  
Waymond R. Scott Jr.  
Mary Althea Seckinger  
Timothy D. Semones  
Diana Severs  
James E. Shea  
Alan C. Shedd  
Charles H. Shockey II  
Joanna Shreve  
Karen Audrey Sieg  
Judith G. Simpson  
William G. Simpson  
Albert Lawrence Sly  
David C. Smith  
Michael Stuart Smith  
Wade Adams Smith  
Daniel Marion Snare  
Jean Souza  
John Andrew Sparks  
Kenneth D. Springer  
Patricia Stanciff  
Eric Steinhauer  
Maryhelen Stevenson  
Steven W. Stewart  
Robert D. Strickland  
Ronald L. Stroud  
David B. Sult  
David Talley  
Samuel Albro Taylor  
Edward C. Tefft III  
Douglas Michael Tew  
Thomas L. Thompson  
Sherry B. Thornley  
Terry E. Tibbitts  
Trieu Hung Tran  
David H. Trask  
Alfredo Trujillo  
Richard E. Uhlman Jr.  
Laningham Diane L. Van  
Susan Lynn Velder  
Paula Marie Vergamini  
Carlos J. Vivoni  
Teresa Anne Volmar  
David Herman Wagner  
Frank David Wagner  
Marc K. Weideman  
Kevin John Wells  
James Kevin Wheeler  
Gail White  
Rebecca Barkley White  
Brian Daniel Whittemore  
Gregory S. Widell  
Bobbie S. Wiley  
Tony Lynn Wilkey  
Michael F. Williamson  
Frederick M. Williams  
Leon C. Williams  
Richard R. Williams  
Tina E. Williams  
Jonathan Wilson  
Joseph M. Wilson  
Mark Wilson  
Carol Anne Wise  
Robert Ellis Wood  
David Nelson Word  
James A. Worsham Jr.  
Louise Sowell Wyatt  
Bret J. Yetter  
Michael Jerome Yoham  
Michael H. Yount  
Susan Zedella  
Donald F. Zyriek

Joni Ann Adams  
Matthew Richard Ahrendt  
James Bruce Allan  
Michael H. Amend  
Phillip Marion Anderson, Jr.  
Paul J. Ardie  
David V. Badzik  
Bruce William Bakke  
Sergio Barcala  
Anita R. Bausman  
Julie O. Bercegeay  
Johnathon Mark Berg  
Paul Harvey Bishop  
Robert E. Bitten  
Glenn P. Bochner  
Robert W. Bodron  
Veronon K. Boland  
Mary K. Bresnahan  
Wade T. Bridges  
Nathaniel J. Brown  
James M. Byrum  
Martin L. Campbell  
Daniel T. Carroll  
Jo Ellen Carter  
Reginald A. Cartledge  
Richard H. Cavallaro  
Albert T. Chamillard  
Victor Po On Chan  
Christopher M. Chen  
Stuart Kerry Cheung  
Leslie F. Clay  
David Lee Cohen  
John F. Conway  
Gregory W. Cook  
Jeffrey A. Cooper  
Thomas J. Corbo  
David Charles Cree  
James G. Culbreath  
John J. Curtis III  
Chinh Van Dad  
Mark J. Danielson  
Todd D. Danielson  
Terry S. Danner  
Richard Lee Darden  
Susan L. Davis  
Dawn Ellen Deardorff  
Diana Diaz  
Charles T. Dickson  
Larry G. Estes  
Ronald I. Farb  
Timothy P. Farley  
James R. Flagg  
Neal P. Fleck  
Cherie Lynn Fortham  
George E. Fulton, Jr.  
Robert G. Gabel  
Scott A. Gabeline  
Steven J. Gambon  
Walter G. Glover  
Christopher H. Goheen  
Susan H. Gonsky  
Glenn B. Greathouse  
Edward E. Greene  
Thomas D. Gros  
Shahin Hadian  
Michael Shawn Hairston  
Cynthia L. Hall  
Holly H. Hamilton  
Jerry F. Hancock  
Stephen G. Hardy  
Leslee L. Hare  
James J. Harford

William M. Hargen  
Chris S. Harvey  
Brian K. Hatchell  
Neil C. Hawkins  
William B. Hawkins III  
Pamela L. Hayes  
Elizabeth Ann Heefner  
Michael W. Heiges  
Della L. Henriksen  
John E. Hermes  
Patricia Cooper Herron  
Julia L. Hiebner  
Richard G. Hill  
Cary V. Holsenbeck  
Robert S. Hooker  
Randall C. Horsley  
John Gordon Hotchkiss  
Donna Kathleen Houtzager  
Robert J. Hughes  
Ronald D. Humphreys  
Timothy L. Hunt  
Manuel E. Iglesias  
Luis F. Illingworth  
William V. Ingle  
Johnny C. Jackson III  
Stanford R. Jackson  
Alan Jeffrey Jakobowski  
Kenneth L. Johnson  
Laura C. Johnson  
Russell S. Johnson  
Richard Greg Jordan  
Louis J. Kanellos  
Marvin M. Kilgo III  
James A. Kinnard  
Haruko Kinoshita  
Frank A. Koconis  
Michael D. Koster  
Nanette M. Kunzler  
Christine M. Kurjan  
Joseph Dante Lattanzi  
Conrad M. Leiva  
John Kenneth Leppla  
Richard Leon  
Jeffrey K. Leppla  
James G. Lertola  
David A. Lewin  
Mark D. Lincoln  
Ivan M. Llanos  
Tamara Jayne Loye  
Martin V. Mancuso  
Jack Manevich  
Brian E. Markwalter  
Sharon S. Marky  
John Carlos Marron  
Lewis P. McDermott  
Edward A. McDonald  
Kenneth A. McKenzie  
Michael E. McNeill  
Troy R. Medler  
Kevin S. Mepharm  
Morgan L. Miller  
Gary M. Moland  
Marc A. Montgomery  
George B. Moore  
James Randall Morgan  
Robert Andrew Myers  
Anthony J. Neavereth  
Mark A. Nichols  
Jeffrey D. Nigh  
Joe R. Noles  
Rochelle Oslick  
Teresa M. Parsons

James A. Perry, Jr.  
Sally A. Pfeiffer  
Joseph H. Pinson, Jr.  
James E. Polk  
James E. Powell  
Paul E. Probst  
Martin E. Puller  
Susan M. Raffensperger  
Anne C. Rambaud  
Leigh A. Ramsey  
Michelle Marie Renie  
Peter Meong Rhee  
Roland R. Rodriguez  
Carlos R. Rosales  
Lisandro Sagastume  
Michele D. Saire  
Scott W. Sanders  
Hyman I. Sarasohn  
Daniel John Schaefer  
Richard Pittman Scheff, Jr.  
David Alan Schienvendick  
Richard Alan Schiffler  
David Richard Schlensker  
Scott Jeffrey Schrader  
Charles N. Schaugnessy  
Ronald K. Shea  
Stephen Andrew Sherman  
Kevin C. Shultz  
Philip Bannister Simpson  
Lisa J. Slaiman  
Gerald S. Smith  
Michael Smith  
Michael A. Smith  
Warren B. Smith  
Eric S. Snyder  
Miri So  
Glen F. Spivak  
Scott J. Spivak  
Stephen A. Spooner  
Kenneth M. Sprattlin  
Melanie L. Spriggs  
Maureen E. Stanley  
Laura E. Steele  
Steven L. Story  
Stuart K. Sylvester  
Leo A. Synoracki  
Mark W. Terry  
Ronald J. Thompson  
Thomas L. Tiede  
Charles Brian Titus  
Richard K. Toohey  
Hugh Walter Tracy, Jr.  
Sheryl G. Tucker  
Abhoyprasad M. Vaidya  
Mary K. VanDeren  
April Kathleen Waddell  
Eileen E. Webb  
Elaine M. Webb  
Robert G. Whiale  
Michael D. White  
Donald Scott Wills  
Mark Edward Wills  
Ephie A. Womble  
Todd Leslie Wood  
Lyle A. Woodruff  
Rosalind H. Wright  
Jon E. Wyatt  
Amy K. Young  
Edwin Matthew Young  
John J. Young, Jr.  
Julie A. Zedella



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# Briarean Society

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## 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 enrolled in the co-operative program. To be elected to the Briarean Society, a student must have earned at least a 3.0 cumulative grade point average and have completed five quarters of academic study in the Co-operative Department.

Michael Abadie  
Judy Adams  
John Austin  
Robert Baltar  
Richard Barcori  
Walter Barry  
John Bell  
Mark Bennett  
Coleman Bentley  
Karin Boettcher  
Daniel Bradley  
Karen Brooks  
Michael Brown  
Wesley Bryan  
Edwin Carlsen  
Mitchell Cline  
William Conwell  
Greg Corcaron  
Michael Delange  
Dave Detmer  
Shawna Dunleavy  
Jaime Durand  
Greeg Edmiston  
James Epstein  
Kevin Erickson  
Melvin Ferebee  
Carol Fleishman  
Kevin Fletcher  
Richard Folea  
Paul Franklin  
Leo Frantz  
Doug Fuller  
Andy Gerrick

Lisa Gibbs  
Forrest Goodwin  
Greg Green  
Mark Guenther  
Tom Gurley  
Jason Harry  
Kenneth Hawkins  
Jane Heavrin  
Richard Hernandez  
Richard Hergert  
Rosalind Hill  
Bill Hitch  
Terry Honick  
Joseph Humphrey  
Rick Johnson  
Vince Kegel  
Charles Kerr  
Larry Kimbrough  
Marion Mark King  
Ed Krikorian  
Julie Lange  
Bill Lansford  
Donna Lantz  
Ruth Litman  
Russell Lowery  
Dan Maddox  
Michael Martucci  
Stephen Martucci  
Robert Merkel  
Kimberly Mitchell  
Isaac Moore  
Ronald Morrison  
Kate Nesbit

Brian Nutt  
Michael Oles  
Dave O'Neil  
Tammy Page  
Kate Parker  
Terry Patterson  
Richard Pearson  
Linda Podger  
Vicki Polance  
John Rahaim  
Bill Ralph  
Mark Robb  
Stephen Roberts  
Charlene Russell  
Steve Sheetz  
Mike Sheff  
Ron Slaymaker  
Carol Smith  
Dave Stewart  
W. C. Strickland  
Douglas Taylor  
Samuel Taylor  
Walter Thain  
Paul Thurner  
Gary Turbeville  
Doug Valenti  
Frank Wagner  
David Walker  
Paul Walker  
Andrea Weiss  
Tim White  
Thomas Wiencko  
David Word

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# Order of Omega

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## GREEK 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.

Barry Birckhead	Carole Moore
Frank Clements	Terrye Nipper
Wes Combs	Jim Richards
Randy Henderson	Rick Robbins
Jack Hopkins	Ed Rosequist
Ken Klaer	Don Russell
Noelle Marier	Stacey Sarris
Kelly McKeague	Chuck Shockey
Mike McShane	Tony Taylor
Ed Metzger	Larry Winter

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# Who's Who Among Students in American Colleges and Universities

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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, seniors or graduate students.

Jeffrey L. Baggett	Cheryl L. Hart	Linda Sue Podger
Barbara E. Ballas	Mark C. Hemmer	Juan M. Prieto
Thomas M. Blake	Karen E. Higgins	Lauren Ann Quinn
Luther W. Center, Jr.	Scott Hoenig	Michael B. Sanders
John S. Dirksen	Harold T. Johnson	Steven C. Sanders
Roxanne Drago	Gail E. Jones	Timothy D. Semones
Donald G. Einig	Gregory S. Kendle	Diane L. VanLaningham
Daniel A. Finelli	Irvin B. Lee	Melissa K. Watts
Diane E. Frank	Noelle M. Marier	Gregory A. White
Ellen B. Garvey	John S. Markwalter, Jr.	James A. Williams, Jr.
Joan E. Goff	Benton J. Mathis, Jr.	Michael T. Williams
Christine L. Gorby	Thomas J. O'Brien	Tina E. Williams
Thomas L. Hardin	Richardson M. Odum	Arthur L. Zwern