The Georgia Institute of Technology is a rigorous technical school, recognized as the best in the South. Since its founding in 1888, sustained expansion has placed forty million dollars of extensive facilities on its 160 acres. But Georgia Tech is more than impersonal buildings . . .

This is the year of expansion. Tech has begun a twenty-year program which will double its size.
The Electrical Engineering Building houses up-to-date equipment for the department's well-trained students.
The SAE's "humper" takes first place in the parade of cars.

Tech cheerleaders lead the "rats" in the pre-game activities: the spirited "Ramblin' Reck" fight song.

Left: NBC comes to campus for the Duke game and, of course, an interview with Coach Dodd.
Visiting the campus during the fall, Alumnus John Young tells of his adventures with the Gemini space program.

The school has a virile image: a consistently strong football team, a popular fight song, and a large number of successful graduates . . .

The colorful 1965 edition of the football team earned a 6-3-1 record and a thrilling Gator Bowl victory.
In many advanced engineering problems, the computer is a necessity. Many of Tech's departments are now requiring computer courses.

Above: These mechanical hands perform simple operations with radioactive materials. Right: This electron diffraction equipment measures the distance between layers of atoms in crystals.
To the world of science and technology, Georgia Tech has been a breeding ground for significant contributions in the fields of education and research...
The social drive left in the Tech student finds an outlet in fraternity life . . .

Right: Rush is the lifeblood of a fraternity. Here, the SPE's welcome a freshman to pledge-ship. Below: A week of hard work earned the Betas first place in the display contest.
Loud band, opaque container, and female companionship: these are the elements of a break from a hard week.

The Phi Gamma Delta island party is an all-day affair. The first band starts playing early in the afternoon, and the Fiji's don't let up till midnight.
Registration is a battle against IBM cards, pink slips, white slips, and impossible schedules. The winners get a crack at a degree.
Only the fittest will earn the degree and these rarely without the combination of hard work, sleepless nights, and the elusive "word."

"Play just as hard as you know how, but when you quit playing, quit, and then work with all your hearts, and as hard as you know how."

—Theodore Roosevelt, on campus, 1905
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Relaxing momentarily in his office, Dr. Harrison takes a few minutes to discuss the future of the Institute.

With eight years of Institute-building behind him, Dr. Edwin D. Harrison has established himself as the efficient, businesslike president. Realizing the need for more effective management, Harrison is following through with the proposals of a recent managerial study. The plan calls for a complete administrative reorganization, adjusting to the growing physical facilities of the institute.

The walls of the President's office are covered with the signs of the changing times—Tech's expansion program; a visit with the likeable Harrison is not complete without a convincing lecture about the school's bright future.
President Harrison maintains an active schedule in the area of student and alumni relations. Above, he hands out 1000 diplomas during the eighty-second commencement exercises, and (left) he speaks at an alumni luncheon.
Right: Joe W. Guthridge, Vice President, Development.

Above: Jamie R. Anthony, Vice President, Controller. Right: Paul Weber, Vice President, Planning.
Administration

Left: James E. Dull, Dean of Students. Below: Robert E. Stiemke, Dean of the Engineering College.

Above: Ralph R. Hefner, Dean of the General College. Right: Mario J. Goglia, Dean of the Graduate Division.
Administration

Left: Mrs. J. Henley Crosland, Director of Libraries.
Below: James L. Thomas, Director of Georgia Tech Center.

Above: Lucien W. Hope, Assistant Dean of Students.
Right: Edwin P. Kohler, Assistant Dean of Students.
Left: Rocker T. Staton, Associate Dean of the Engineering College. Below: James G. Wohlford, Director of the Cooperative Division.

Above: Walter E. Nichols, Associate Dean of Students. Right: Lawrence V. Johnson, Director of the Engineering Extension Division.
Administration

Right: Robert B. Wallace, Jr., Director of Publications. Below: James A. Strickland, Director of Counseling and Guidance.

Fred W. Ajax, Director of Public Relations.

Basil Hoover, Counselor
Below: Norma M. Johnson, Assistant Registrar.

Right: W. L. Carmichael, Registrar and Director of Admissions. Below: Frank E. Roper, Jr., Assistant Registrar.

Above: James L. Garner, Assistant Registrar. Right: Robert B. Logan, Director of Auxiliary Services.
Right: Thomas H. Hall, Associate Secretary of Alumni Association. Below: Jerry L. Hitt, Associate Director of Admissions.

Above: Robert B. Kimmel, Assistant Registrar. Left: W. Roane Beard, Executive Secretary of Alumni Association.
Aerospace Engineering

The School of Aerospace Engineering has undergone rapid growth in the last few years. With the second largest enrollment of any engineering school on campus, there are approximately 750 undergraduates, while the graduate enrollment has increased proportionately and now includes about 75 students.

The department will soon occupy the new four-story building, Space Science Technology Center. This building will house research in air elasticity, aircraft and missile structures, gas dynamics, and propulsion. Facilities will include a shock tunnel, used to generate very high speeds and high temperatures; a large vacuum facility, used for simulating rocket exhaust flows at high altitudes; and shock tubes, which complement the shock tunnel.

An aspiring engineer puts finishing touches on his design project.

Here in the wind tunnel, a carefully scaled model of the C5A, Lockheed's newest baby, is tested and checked out before further steps in the project are taken.
Used for research projects within the department as well as by industry, the wind tunnel can create wind conditions of 160 mph.

Dr. Arnold Ducoffe,
Director of Aerospace Engineering
With three or four labs per week, young architects find out what work is.
An architect must be many things in many capacities. He is expected to be an artist, an engineer, and a humanist rolled into one. The hours he spends in the labs (and the frustrations he experiences as he realizes that a design must be started again from scratch) are reasons enough to cause those without devotion to drop from the ranks. The upperclassmen who survive this purge spend many hours in the Architecture building and then many more out of class in an attempt to develop a design that will be esthetically satisfying and, at the same time, one that will "work". The "esprit de corps" that is present in the school can only be felt after one has been up all night on a "cherette," a last-ditch effort to get the problem in for judging.
Biological studies have been greatly facilitated by the use of closed circuit television.

Dr. Robert H. Fetner, Director of the School of Applied Biology.
Basic biology will be emphasized more and more. In keeping with the technical university concept derived from the recent self-study, biology will be strengthened as a basic science on campus. Biological aspects of engineering problems will be stressed.

Each member of the biology staff, which includes 7 full-time professors, is engaged in a research project. These include research on electron spin resonance in biological systems and research in radio-biology. Irradiated food projects involving the ability of micro-organisms to survive radiation treatment have been undertaken using the nuclear reactor.

In the "Tech Today" program, Dr. Fetner performs in an alumni relations capacity as he demonstrates one of the department's projects.
Ceramic Engineering

The advent of the space age has greatly increased the demand for ceramic engineers. The development of space vehicles and navigation in space has demanded materials which man has never needed before. To the ceramic engineer falls the task of developing new materials which are very stable and resistant to corrosion and radiation. Some of the new developments are: radomes windows for space vehicles, high temperature encasements of electronic components, memory circuits, heat shields, nose cones and refractory noses for rockets.

The department of Ceramic Engineering works closely with the clay and mineral industries of the state. The school is called upon to help with development projects, with refinements, and with analysis of sales and economic problems.
In this x-ray diffraction experiment, the needle makes a permanent record of the results of directing x-rays at a crystal.
The study of material behavior under various circumstances is a fundamental of Ch.E.; James Wilson is studying such behavior at low temperatures, the new field of cryology.

Dr. Homer V. Grubb, Director of the School of Chemical Engineering.
The development and operation of industrially useful chemical processes, or the practical application of some new chemical discovery, are involved in Chemical Engineering. The chemical engineer in our fast-paced industrial age is called upon to apply his knowledge in a wide variety of industries.

The number of Juniors and Seniors registered in Ch.E. is limited by the high scholastic requirements. The students selected to continue are judged on the quality of their previous two years' work.

In this way, the department maintains its high standards in addition to providing graduates who are recognized for their excellent training. In addition to the four-year bachelors degree, the school offers a master's degree.

Minute crystals of sodium chloride are used to simulate the particles that are always present in our atmosphere. This bubbling column of water is used to eliminate the particles larger than 0.1 micron.
These rubber inlets enable the chemist to work... in an atmosphere other than one using oxygen.
The School of Chemistry at Georgia Tech has granted more Ph.D. degrees than any other school on campus. There are now approximately 100 graduate students in the department where they are exposed to an impressive research atmosphere.

Research facilities include recording infrared spectrometers, a light scattering photometer, polarographs, an inert spectrograph for magneto-optics research, a Bendix automatic polarimeter, and equipment for the study of nuclear magnetic resonance phenomena. Research is extensive and varied. It includes quantum mechanical calculations of electronic energies, wave-functions, and other properties of small atoms and molecules; the structure, stereochemistry, and optical activity of transition metal compounds; and photochemistry of organic molecules.
With the annexation of the old Ceramics building, the C.E. labs have expanded.
The civil engineer provides the community with the facilities it needs for living. Oldest of the engineering professions, civil engineering coordinates and directs the resources of nature, man, and machines toward better living for mankind.

The School of Civil Engineering offers courses in construction, fluid mechanics, sanitary engineering, soil mechanics, soil and rock mechanics, structural engineering, surveying, transportation, water resources, planning, and management. Emphasis is placed on fundamental laws and concepts to enable the student to attack problems in a logical manner and to draw conclusions from principles and facts.

Approximately 440 undergraduate students are enrolled in this school, and the present trend toward graduate education has raised graduate enrollment to about 90 students.

This experiment tests the reaction of sand under water pressure. The instrument above records data from the tank at left.
The School of Electrical Engineering has the largest enrollment of any school on campus. In recent years, the undergraduate enrollment has been third largest in the nation. There are now approximately 1100 undergraduates. The graduate program has been expanded with more than 130 graduate students.

Research activities include six subject matter areas. These are network theory, electromagnetics, physical systems, communications, control systems, and digital systems. Testing facilities are adequately provided in the new Electrical Engineering building. Laboratories include analog and digital computers, materials, and transistors. The entire fourth floor was planned for department research.
In this laboratory study of resistance, pairs of undergraduates have hundreds of dollars of equipment at their disposal.
Engineering Graphics

The Department of Engineering Graphics offers the student basic knowledge of the language of engineers. It is through graphics that the engineer communicates with the technician to transform his ideas into reality.

Although all engineering students do not pursue identical courses in Graphics since the subject matter is tailored to meet the specific needs of various disciplines, it is hoped that the student will reach that level of graphics literacy that will assist him to live more successfully in his professional environment.

Through three quarters of graphics, freshmen labor to learn the language of the engineer.

Dr. R. K. Jacobs, Director
Engineering Mechanics

To meet the demand created by recent advances in science and technology, the School of Engineering Mechanics provides a strong foundation in mathematics, basic electricity and electronics, dynamics, and vibration, advanced strength of materials, theoretical and experimental stress analysis.

Regardless of his field, no engineer has received a complete education without a knowledge of this basic applied course, which has long been recognized as a fundamental of engineering. An excellent background is also provided for further study at the higher degree level.

Experimentation in stress analysis necessitates the delicate touch of a trained engineer.
Dr. Andrew J. Walker, Director

H. Naugle  G. W. Rainey  J. C. S. Rivers

T. F. Almon  R. Bergamo  S. P. Beven  E. Blicksilver  D. B. Comer

E. Evans  A. F. Hamrick  R. L. Hull  S. E. Jackson  W. R. Metcalfe

The ability to express himself clearly and with forcefulness is the mark of the successful professional man.

To the English Department falls the task of teaching future engineers, architects, scientists and businessmen to think, write and speak clearly. All new students begin acquiring these important language skills with the freshman composition course, and, later, the speech course in which the majority of juniors enroll. But the English Department also guides students in their study of the universal themes and great ideas of humanity which run throughout our literature—building an awareness of the values that give meaning to the life of a man.

English 204 (shown on these pages) is a small, seminar-type class enabling the instructor to bring about a more relaxed atmosphere and better creative writing.
These I.E. students are learning to use the analog computer, valuable in solving problems in the Industrial Engineering field.

Frank F. Groseclose, Director
One of the more versatile engineers is the graduate of the School of Industrial Engineering. With training in operations research, management science, and systems engineering, the Industrial Engineer is the link between technology and management. He combines the human factor and the scientific factor to devise the most efficient methods of production; coordinating men, machines, and operations is his specialty. The practical, on-the-job courses of the IE school are numerous; for instance, IE 415 is a demanding, project course in which students spend a quarter analyzing the systems of some local establishment. Other interesting courses are IE 433, a computer course in data processing; IE 447, the actual layout of a plant; and IE 460, the critical path technique.

In the labs the students practice time and motion study, one of the I.E.'s valuable tools.

C. G. Johnson  J. Krol  N. K. Rogers
B. C. Spredlin  H. A. Wadsworth  J. R. Walker
Established in September, 1963, after a series of national conferences and special studies sponsored by the National Science Foundation, the School of Information Science is one of the newest schools. The program is designed to prepare students for professional careers in the field of information science. This is the field of study and professional practice concerned with the nature and properties of information and with its origination, control, and use. Professional applications of information science contribute to the understanding of organization and to the formalization of such information-based processes as problem solving, decision making, communication, and learning. Thus, it bears on most areas of science and on such fields as management and education.

Information science is based on several fields of study: study of languages, mathematics, logic and other areas of philosophy, behavioral sciences, and cybernetics. There is a master's degree offered now, a Ph.D. program, and an undergraduate curriculum in the planning stage.

The B5500 is used extensively by the Information Science students in their research.
The School of Industrial Management has over one thousand students including eighty graduate students, making Tech's I.M. department the largest school of its kind in the country. The I.M. graduates have a certain advantage over their contemporaries in business administration schools; Tech's I.M. students must take more courses in the basic sciences and are educated in a technical atmosphere, resulting in a high respect for the budding managers in industry.

Some of the graduate student projects that the students take to prepare them for the real world of labor relations and sticky management problems are: study of economics, especially marketing analysis; production specialists, utilizing time and motion studies; use of computers to solve management problems with linear programming; and aiding various companies in the selection of firms to do work. Eighty-eight per cent of the graduate students are from other fields of study.
Mathematics

The mathematician finds career opportunities in a variety of fields. These include opportunities as teachers of mathematics, opportunities in mathematical and applied statistics, in industry, in government, and in the actuarial profession.

The Department of Mathematics plays a dual role. It trains engineering and scientific students in basic mathematics and provides more advanced mathematical training for the student who plans to make math his profession.

Professor Fulton offers some help in basic calculus.
The intricacies of this air duct system, its valves and pipes are explained to these M.E. students.
Mechanical Engineering

The art of the generation, transmission, and utilization of heat and mechanical energy, and the design as well as the production of tools and machines and their products are the chief worries of the mechanical engineer. In the M.E. department, the basic principles are impressed upon the students, assisting them in assimilation of new ideas and logical conclusions drawn from given facts.

In the M.E. department, every graduate student is required to work on a research project. These projects result in much nationwide attention and draw many students to the graduate school from other fine institutions. At the same time, the well-trained men who complete the graduate program are in demand as teachers at these same institutions.

This camera-equipped oscilloscope is used in the M.E. student's required research project.

Mr. Wall makes a precise adjustment on the equipment he is using in research work.
The newest department on campus, Nuclear Engineering utilizes Tech's recently activated reactor.

The School of Nuclear Engineering is a graduate level department which grants both M.S. and Ph.D. degrees. Students have access to some of the finest equipment in the country, including a subcritical assembly reactor, used for instruction only; a reactor simulator, which is essentially an analytical computer; a neutron generator, pulsed to give bursts of neutrons; and, of course, the reactor itself.

Two current research projects, both aimed at measuring fundamental parameters or characteristics of the reactor, are a pile oscillator study of the reactor and a noise analysis technique.

These mechanical hands enable the operator to handle radioactive materials.
The Department of Modern Languages is first concerned with preparing the Tech student for reading technical and scientific materials in a foreign language. In addition, it seeks to broaden the student's non-technical background, and acquaint him with the civilization and literature of the country whose language he is studying.

Courses are offered in Spanish, French, German, Russian, and, on an experimental basis for the first time this year, Chinese. Approximately fifty-five percent of the matriculating freshman take a modern language.
To prevent the overlapping of course material which invariably occurs in technical education, the School of Physics has revamped its undergraduate curriculum. While reducing drastically the number of required hours, the progressive move is expected to provide a better education by allowing the students to concentrate on a smaller number of courses.

Fundamental to most of technology, courses in physics are included in the requirements of almost all departments on campus. The School of Physics provides these courses as well as the advanced training for those who seek a degree in the science. The curriculum for physics majors includes a wide variety of courses in quantum mechanics, molecular, atomic, nuclear, and solid state physics.
An E.E. graduate, this student works with the Physics team, handling the intricate electronics equipment necessary to conduct their research.
Psychology

Below: Senior Tony Yaksh prepares two chickens for use in his project on the effects of removal of the cerebellum. Right: In his test of depth perception Tony observes to which side the chicken chooses to travel on this specially constructed surface.
The School of Applied Psychology offers a curriculum which stresses the human factor in all phases of engineering and industrial management. The general objective of the curriculum is to provide the student with an understanding of human behavior and its effects in personal, family, and industrial problems.

An effort is made to create in the student an awareness of the whole man: his attitude, his feelings, his fears, and his desire for recognition and security. The applied psychology graduate will be well prepared to work in personnel and training departments in industry.
The problem of developing the physical resources of the Techman is the job of the Department of Physical Training. For the freshmen, the department has a program designed to teach the basic concepts of physical fitness, exercise, and water safety with a quarter of track, one of swimming, and one of gym. To maintain the conditioning found as freshmen, the sophomores enjoy a more recreative year; this second year is spent playing indoor and outdoor sports as basketball, football, and tennis.

A freshman's P.T. assignment: Stay afloat and avoid panic with limbs tied.

Tech's Director of P.T., Tonto Coleman gives his farewell address—he becomes SEC commissioner next fall.

Coach Welser instructs his gym class in one of the high bar techniques.
One of the mainstays in the attempt to obtain well-rounded students is the Department of Social Sciences. With the basic courses in sociology and American Government for the freshman, the school also has available a number of electives for the upperclassmen. These higher courses include the philosophical, (for example, SS 405-6, a study of political theory from Plato to John S. Mill) and the more practical, (like SS 401, a course in municipal and county government). The department of Social Science collaborates with the School of Civil Engineering on the City Planning curriculum.

Social Science

Dr. George Hendricks, Director of the Department of Social Sciences.

A relief from the problem-solving courses: SS 325.

J. D. McClain    M. Mitzner    R. S. Scharf    S. W. Thornton    W. E. Wight
With the end of compulsory ROTC at Georgia Tech this year, the military programs received a stimulus. Now that all cadets are in their respective departments by choice, the Air Force, Army, and Navy are turning out more capable officers.

The Air Science Department divides its training into two parts: The first two years (General Military Training) precedes the selection of those who enter the Professional Officer Course, a two-year program leading to a commission in the Air Force. The Military Science Department has a similar curriculum in which students are trained for one of the six branches of the Army. The Naval Science Department has a four-year program for "regular" students (those on Navy scholarship) and "contract" (those who contract to enter the Navy upon graduation).
Dynamics is the branch of physics dealing with the action of force on bodies in motion or at rest. Effectively, it could be called the study of change—and it could even be called a study of Georgia Tech's A. French School of Textiles.

During the past year, every phase of the textile department has undergone drastic change. New courses, new faces, and new equipment are evident throughout the building. Even the basic textile courses are no longer concerned only with spinning and weaving. Now, the objective is to consider the end use and potential uses of the materials. The days of "Basket weaving 201" are gone and the field of fabric construction is providing a real challenge.
Much of Georgia Tech's advancement in the field of textiles is the direct result of the school's close association with the industry it serves. The Georgia Textile Manufacturers Association has gone all out to support Tech by setting up the Textile Education Foundation. This is a non-profit organization which has, over the past ten years, contributed over $105,000 for new equipment. Each year, the Foundation also donates about $60,000 for other projects including 24 scholarships for textile majors.

The Foundation's help enabled Tech's textile department to locate and procure the very latest in equipment. Some of the new equipment was used to set up a lab to test all of the cotton produced in Georgia.

The density of a cotton sample is determined in Tech's new cotton testing laboratory.

The digital fibrograph is used to determine the average staple length of samples from a bale of cotton stock. Eventually, Tech plans to run tests on every bale of cotton produced in the state of Georgia.

R. F. Johnson  R. G. Latherm  J. W. McCarty
Research:

Engineering Experiment Station

Designed for all types of engineering investigations for the state, the Georgia Tech Engineering Experiment Station is an official agency of the University System of Georgia. With private as well as governmental projects, the station employs many of Tech's faculty members and graduate students to conduct the research.

This page shows the electron microscope, used for high order magnifications. In the picture above are the crystals of magnesium oxide smoke, magnified 68,000 times.
The x-ray diffraction equipment shown here examines the physical structure of crystalline substances. At left is the ray gun directed towards the sample material. Above is the unit which records the data.
In February, the Engineering Experiment Station's one million dollar electronics building was officially dedicated by Georgia's governor, Carl Sanders. Sanders' interest in the project was founded on the growth of Georgia's electronics industry that this project reflects.

With sixteen major research contracts, the division's director, Dr. Maurice W. Long has his work cut out for him; the contracts are for mostly classified work and are distributed among the Army, Air Force, NASA, and several private industries.
The Governor,
Electronics,
and Georgia Tech