

Georgia Tech – Then and Now



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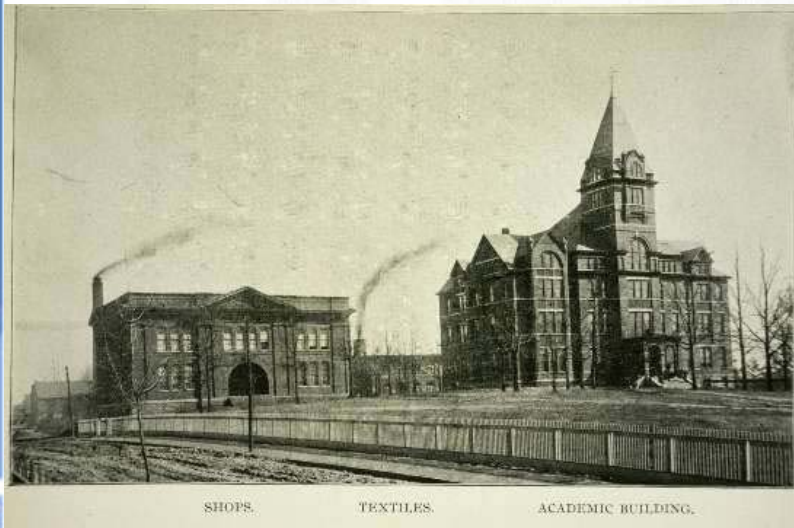
Need For The Institute

- The South was behind economically to the North.
- A way to educate southerners in the manufacturing ways of the North.
- Based of the WPI and MIT models.
- Created during Reconstruction.
- Do you think we succeeded?

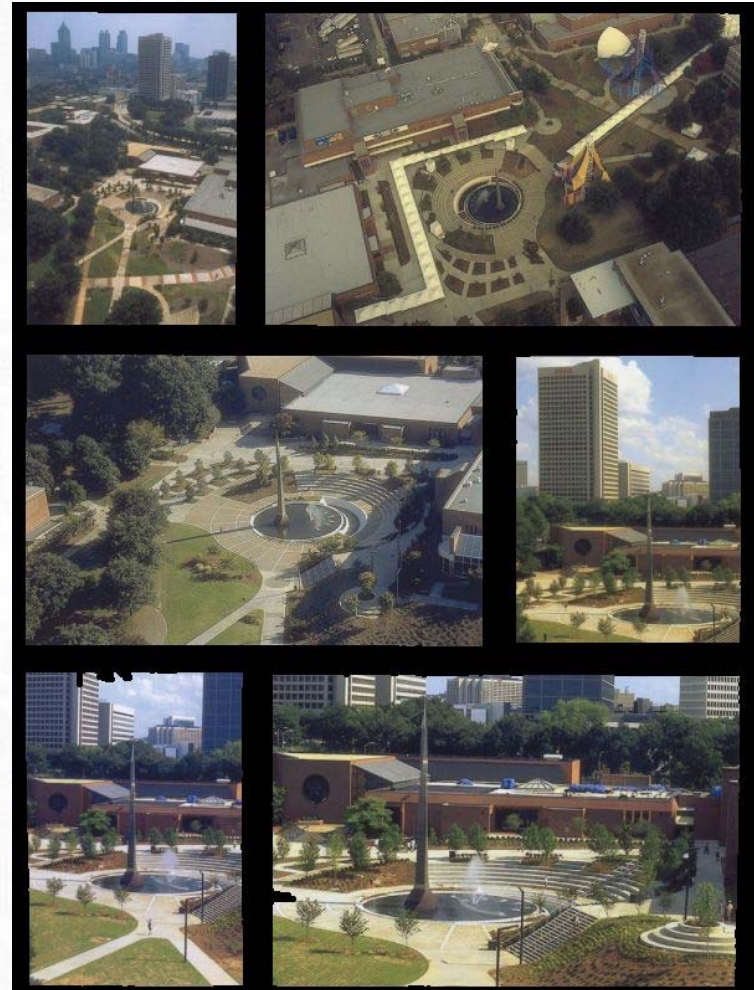


Georgia Tech – Then and Now

Then



Now

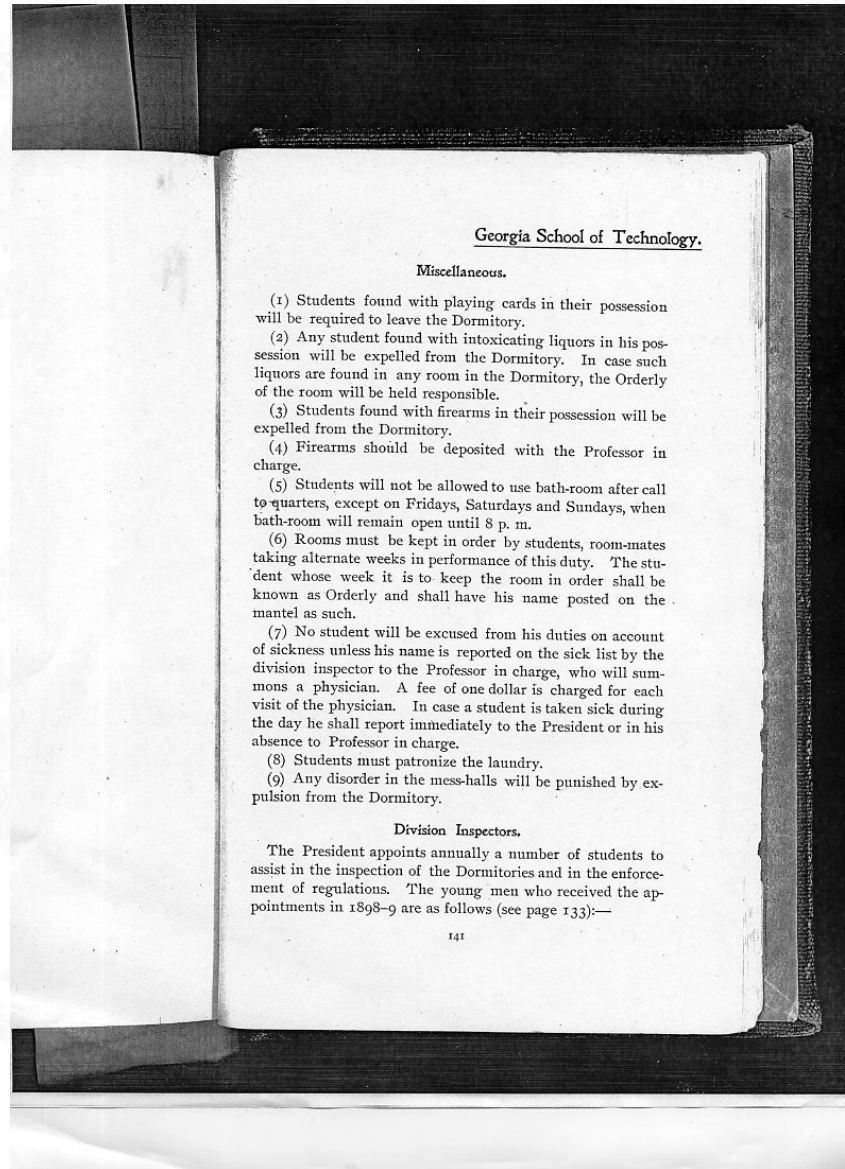


Differences in Georgia Tech

- Possession of playing cards would lead to a student's expulsion.
- A student would be allowed to leave his firearm with his professor before class.
- Dormitory bathrooms were only open until 8 pm on weekdays.
- Students were required to pay for their laundry to be done.
- Any of these do you find troubling?



Differences in Georgia Tech



Georgia School of Technology.

Miscellaneous.

- (1) Students found with playing cards in their possession will be required to leave the Dormitory.
- (2) Any student found with intoxicating liquors in his possession will be expelled from the Dormitory. In case such liquors are found in any room in the Dormitory, the Orderly of the room will be held responsible.
- (3) Students found with firearms in their possession will be expelled from the Dormitory.
- (4) Firearms should be deposited with the Professor in charge.
- (5) Students will not be allowed to use bath-room after call to quarters, except on Fridays, Saturdays and Sundays, when bath-room will remain open until 8 p. m.
- (6) Rooms must be kept in order by students, room-mates taking alternate weeks in performance of this duty. The student whose week it is to keep the room in order shall be known as Orderly and shall have his name posted on the mantel as such.
- (7) No student will be excused from his duties on account of sickness unless his name is reported on the sick list by the division inspector to the Professor in charge, who will summons a physician. A fee of one dollar is charged for each visit of the physician. In case a student is taken sick during the day he shall report immediately to the President or in his absence to Professor in charge.
- (8) Students must patronize the laundry.
- (9) Any disorder in the mess-halls will be punished by expulsion from the Dormitory.

Division Inspectors.

The President appoints annually a number of students to assist in the inspection of the Dormitories and in the enforcement of regulations. The young men who received the appointments in 1898-9 are as follows (see page 133):—

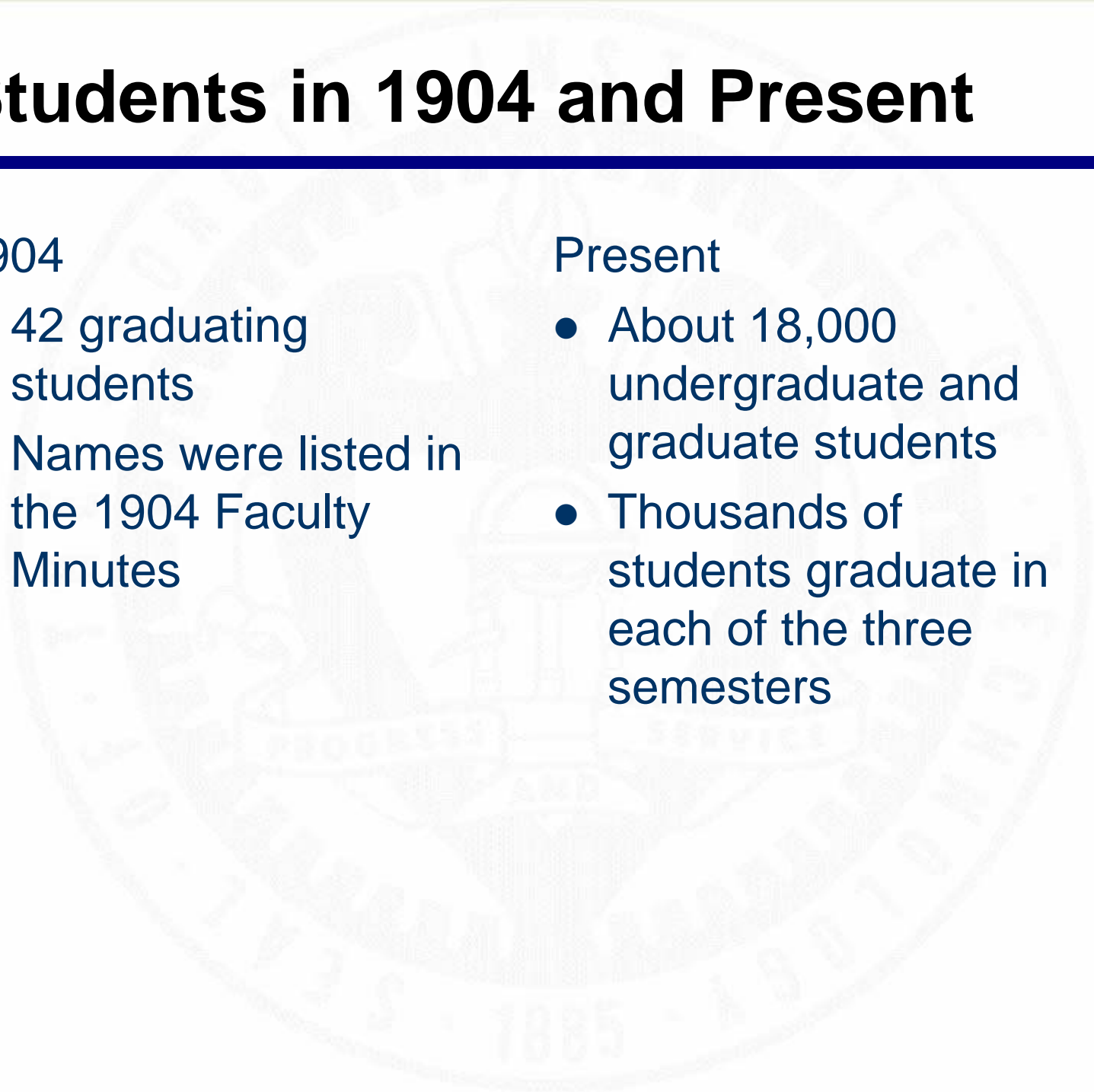
Students in 1904 and Present

1904

- 42 graduating students
- Names were listed in the 1904 Faculty Minutes

Present

- About 18,000 undergraduate and graduate students
- Thousands of students graduate in each of the three semesters



1904 and Present Degrees

1904

- 5 degrees
 - Mechanical Engineering
 - Textile Engineering
 - Electrical Engineering
 - Engineering Chemistry
 - Civil Engineering

PRESENT

- 6 colleges (Architecture, Computing, Engineering, Management, Liberal Arts, and Sciences) with...
 - 9 certificates
 - 54 undergraduate degrees
 - 71 master's degrees
 - 30 doctoral degrees



Differences in ME Course of Study

- Mechanical engineering program initially had a shop-work component. The products of shop exercises were sold to generate income for the school (Drury 10).
- Introductory math classes were algebra, geometry, and trigonometry.
- English was taken every term.
- Chemistry was taken in eight out of twelve terms (Announcements 70-73).



Differences in ME Course of Study (cont.)

- The curricula no longer requires shop work. However, about forty percent of all mechanical engineering majors are involved with the Cooperative Program (“A Brief History” par. 4).
- Introductory math classes today are Calculus I, Calculus II, and Calculus III (“Degree Requirements”).
- Only two English courses are required today. Students have the option of selecting English literature to fulfill the humanities requirement.
- The core curriculum requires one chemistry course but provides the freedom to schedule higher-level chemistry classes.



Course of Study in 1901

COURSE OF STUDY.

(Numbers following subjects indicate hours per week.)

MECHANICAL ENGINEERING.

Apprentice Year.

FIRST TERM.

Mathematics (5).—Elementary Algebra completed; Plane Geometry.

English (4).—U. S. History; Spelling; Readings; Essays.

Chemistry (3).—Inorganic Chemistry (2); Qualitative Laboratory (1).

Drawing (4).—Free-hand; Geometric; Linear; Perspective Sketching.

Shop-Work (12).

SECOND TERM.

Mathematics (5).—Plane and Solid Geometry completed.

English (4).—Rhetoric; Spelling; Readings; Essays.

Chemistry (3).—Inorganic Chemistry (2); Qualitative Laboratory (1).

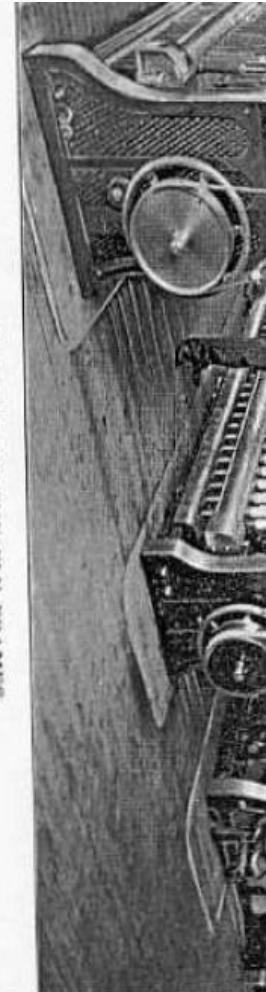
Drawing (8).—Instrumental Linear; Descriptive Geometry Drawing.

Shop-Work (12).

THIRD TERM.

Mathematics (5).—Trigonometry completed.

PRACTICE ON THE FLY FRAMES.



Course of Study in 1901 (cont.)

Georgia School of Technology.

Junior Year

FIRST TERM.

Mathematics (5).—Higher Algebra completed; Trigonometry practice.

English (4).—Civics; Readings; Essays.

Chemistry (7).—Inorganic Chemistry (3); Qualitative Laboratory (4).

Drawing (4).—Descriptive Geometric Drawing.

Physics (3).—Kinematics and Mechanics.

Shop-Work (8).

SECOND TERM.

Mathematics (5).—Analytic Geometry.

English (3).—English Literature; Mythology; Readings; Essays.

Chemistry (8).—Laboratory Work.

Drawing (4).—Machine Drawing to Scale.

Physics (3).—Sound and Light.

Shop-Work (8).

THIRD TERM.

Mathematics (5).—Analytic Geometry completed.

English (3).—History of England; Readings; Essays.

Chemistry (6).—Qualitative Laboratory.

Drawing (4).—Machine Drawing to Scale.

Physics (3).—Light and Heat.

Surveying (4).—Use of Level, Compass and Transit.

Shop-Work (8).

Middle Year.

FIRST TERM.

Mathematics (5).—Calculus.

English (3).—Political Economy; Readings; Essays.

Drawing (4).—Spur, Bevel and Worm Gearing.

Engineering (3).—Kinematics and Mechanism.

Physics (4).—Electricity and Magnetism.

Shop-Work (8).



Course of Study in 2007

FIRST YEAR-FALL	HRS
MATH 1501 CALCULUS I	4
ENGL 1101 ENGLISH COMPOSITION I	3
CHEM 1310 GENERAL CHEMISTRY	4
HIST 2111 or 2112 or POL 1101 or PUBP 3000 or INTA 1200	3
WELLNESS	2
TOTAL SEMESTER HOURS =	16

FIRST YEAR-SPRING	HRS
MATH 1502 CALCULUS II	4
ENGL 1102 ENGLISH COMPOSITION II	3
PHYS 2211 INTRODUCTORY PHYSICS I	4
CS 1371 COMPUTING FOR ENGINEERS	3
ME 1770 ENGINEERING GRAPHICS & VISUALIZATION	3
TOTAL SEMESTER HOURS =	17

SECOND YEAR-FALL	HRS
MATH 2401 CALCULUS III	4
PHYS 2212 INTRODUCTORY PHYSICS II	4
MSE 2001 PRINCIPLES & APPLICATIONS OF ENGINEERING MATERIALS	3
ME 2016 COMPUTING TECHNIQUES	3
COE 2001 STATICS	2
TOTAL SEMESTER HOURS =	16

SECOND YEAR-SPRING	HRS
MATH 2403 DIFFERENTIAL EQUATIONS	4

SECOND YEAR-SPRING	HRS
MATH 2403 DIFFERENTIAL EQUATIONS	4
ME 2202 DYNAMICS OF RIGID BODIES	3
ME 2110 CREATIVE DECISIONS AND DESIGN	3
LAB SCIENCE (BIOL, CHEM, EAS, PHYS)	3
ECE 3710 CIRCUITS & ELECTRONICS	2
TOTAL SEMESTER HOURS =	15

THIRD YEAR-FALL	HRS
ME 3322 THERMODYNAMICS	3
ME 3340 FLUID MECHANICS	3
COE 3001 MECHANICS OF DEFORMABLE BODIES	3
ECON 2100 or 2105 or 2106	3
ECE 3741 INSTRUMENTATION & ELECTRONICS LAB	1
SOCIAL SCIENCE ELECTIVE(S)	3
TOTAL SEMESTER HOURS =	16

THIRD YEAR-SPRING	HRS
ME 3015 SYSTEM DYNAMICS & CONTROL	4
ME 3345 HEAT TRANSFER	3
ENGINEERING ETHICS ELECTIVE(S)	3
CEE / MATH / ISYE 3770 STATISTICS & APPLICATIONS	3
ISYE 3025 ESSENTIALS OF ENGINEERING ECONOMY	1
HUMANITIES ELECTIVE(S)	3
TOTAL SEMESTER HOURS =	17

FOURTH YEAR-FALL	HRS
ME 3057 EXPERIMENTAL METHODOLOGY & TECHNICAL WRITING	3
ME 3180 Machine Design or	3
ME 4315 Energy Systems Analysis and Design	3
ME 4210 MANUFACTURING PROCESSES & ENGINEERING	3
MECHANICAL ENGINEERING ELECTIVE(S)	3
FREE ELECTIVE(S)	3



Questions?

- Take a ~5 year snapshot of your major, are there any differences in the requirements now than 5 years ago?
- What have been some new rules that have changed in the last 5 years?
- Does Georgia Tech have any current rules or regulations you find absurd?
- How do you see Georgia Tech changing in the Future?



Sources

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- Announcements. Georgia Institute of Technology Archives. Atlanta, GA. 1900-1901.
- “A Brief History of Georgia Tech and the Woodruff School.” Georgia Institute of Technology. 25 October 2007. <<http://www.me.gatech.edu/about/history.shtml>>
- “Degree Requirements.” Georgia Institute of Technology. 25 October 2007. <<http://www.catalog.gatech.edu/colleges/coe/me/ugrad/bsme/bsme.php>>

