

Engineering in History

Last Updated: Fri, 08/08/2025

Course prefix: HTS

Course number: 1081

Section: A

CRN: 93576

Instructor First Name: Eric

Instructor Last Name: Schatzberg

Semester: Fall

Academic year: 2025

Course description:

Description. This course examines the history of the engineering profession and related activities, as well as selected ethical dilemmas that engineers have faced when making technological choices.

Course learning outcomes:

Course Goals and Learning Outcomes. By the end of HTS 2084, students should be able to:

- Define “engineering” as a profession and set of activities;
- Define “technology” with examples;
- Give a broad overview of the history of engineering;
- Explain the ethical implications of engineering practice.

Required course materials:

Course Books and Readings. There is one required book that you will need to get for week 10:

Loren R. Graham, *The Ghost of the Executed Engineer: Technology and the Fall of the Soviet Union* (Cambridge: Harvard University Press, 1996).

All other assigned readings are posted to Canvas.

Grading policy:

Grades. Major exams, 17% each (51% total); weekly quizzes, discussions, and other assignments, 39%, attendance, 10%.

Percentage grades will be converted to letter grades as follows: $100 \geq A \geq 90$; $90 > B \geq 80$; $80 > C \geq 70$; $70 > D \geq 60$; $F < 60$.

Attendance policy:

Attendance is required, and counts for 10% of your grade. If you need to be absent, please let me know in advance and I'll do my best to accommodate you.

Academic honesty/integrity statement:

Academic Integrity. I expect students to maintain the highest ethical standards in this course. Each student is responsible for knowing the Georgia Tech rules on academic misconduct, known as the "Honor Code": <http://b.gatech.edu/2CjF1Ro>.

Here's summary for written assignments. Don't copy stuff without 1) citing the source where you found the ideas, and 2) putting phrases in quotation marks when you use the exact words from your source. For a short guide to avoiding plagiarism, see <https://bit.ly/3Tg9XJE>; for more detail, see <http://unc.live/2CiHag9>. Any student suspected of cheating on a quiz, exam, or assignment will be reported to the Office of Student Integrity.

Use of generative AI software, such as ChatGPT, is not allowed for any assignments in this course, unless explicitly permitted by the instructor.

Also see the Student-Faculty Expectations Agreement (<https://catalog.gatech.edu/rules/21/>).

Core IMPACTS statement(s) (if applicable):

Boilerplate. The University System of Georgia and the Georgia Institute of Technology require that I include the following bureaucratic prose in this syllabus. I neither endorse nor reject these statements.

This is a Core IMPACTS course that is part of the Social Sciences area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question: • How do I understand human experiences and connections?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will effectively analyze the complexity of human behavior, and how historical, economic, political, social, or geographic relationships develop, persist, or change.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Intercultural Competence
- Perspective-Taking
- Persuasion

Ethics Attribute Learning Outcomes

HTS 2084 fulfills the Georgia Tech ethics requirement. In this course, students will acquire:

- An ability to recognize ethical and professional responsibilities in real-world contexts.
- An ability to assess actions or decisions based on established ethical principles and theories, or through deliberative processes.
- An ability to consider the implications of actions, both for society as a whole and for individuals.