Georgia Tech-Europe, European Campus of the Georgia Institute of Technology
HTS 2084 RMZ - Technology and Society
(Technology through the Ages)
Web version
Course Syllabus

Instructor
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Time and Place
TBD

Course Attributes
HTS 2084 fulfills the social science and ethics requirements at Georgia Tech.

Course Description
Technologies have formed the basis of material culture and influenced the course of social change throughout human history. Yet the shape of technologies' influence on society has varied significantly with time and place and usually goes unnoticed by engineering students. The present course combines the history of technology with world history, focusing predominantly on Europe and the city of Metz. Through a selection of historical case studies – prehistoric axes, medieval cathedrals, French bread, and fast food – we will see how technical practices ("engineering," broadly defined) evolved over major eras of the past. Our case studies will show how the relationship between technology and the social order shifted over the long course of history between various types of increasingly sophisticated societies, organized around tools, crafts, machines, and industrial systems, respectively. Our goal in recounting the large-scale course of technological change will be to prompt reflection about what it means to live in our current technological world – in which complex and interconnected systems increasingly dominate our lives.

Course Objectives
Students will accomplish the following objectives:
- Students will describe relationships among languages, philosophies, cultures, literature, ethics, or the arts.*
- Students will demonstrate the ability to describe the social, political, and economic forcesthat influence social behavior.*
- Students will develop a critical perspective on changes in the relationship between technology, culture and society over major periods of human history.

- Students will integrate aspects of their living experience while in Europe with their classroom study and develop self-awareness of their identity as travel consumers.
- Students will demonstrate proficiency in the process of articulating and organizing rhetorical arguments in written, oral, visual, and nonverbal modes, using concrete support and conventional language.*
- Students will be able to judge factual claims and theories on the basis of evidence.*
- Students will develop effective oral and written communication skills.

(* Language is taken directly from the General Education Mission Statement of Georgia Tech's Core Curriculum, available on the Registrar website.)

Core IMPACTS

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 Requirement

In order to fulfill the ethics requirement at Georgia Tech, HTS 2084 will align course-level objectives, content, and assessments with the following criteria of student success:
- 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 broadly (e.g. global, economic, environmental, or societal) and for individuals.

Grading
Course assessment will be based on the following formula:

  In-class assignments
  After-class discussion posts (Canvas)
  Reading quizzes
  Group debate
  Group essay
  Group presentation
  Test
  Semester review essay

Georgia Tech Lorraine is a serious academic program. While not required, attendance is strongly encouraged at all classes. Please let me know in advance if you cannot attend for an official reason. Students are expected to pay attention in class and actively discuss readings. Please do not use electronic devices, including laptops and cell phones, without special permission.

To receive grades of excellence, students must demonstrate close understanding of course concepts and knowledge of relevant historical material covered in lectures, readings, videos, and class discussion. Final grading will be done on a letter basis and will not be rounded up (90% = A). Final grades will not be available through Oscar until the Monday following the end of the exam period (Aug 8). Please do not ask to have grades changed.

Students will sign up to lead class discussion of assigned readings once during the semester (10 minutes). Please sign in twos or threes in the spreadsheet provided under Collaborations on Canvas. Your grade for leading class discussion will be included as part of your in-class assignment grade, which will include other in-class work. You will also have a separate grade for an extended class debate on fast food (I will provide a grading formula). Plan to meet with me as a team during the debate process. You must make up all missed in-class assignments within one week or receive a grade of zero. I will not make any grade changes after more than one week.

You will receive a grade for after-class responses completed through Discussions on Canvas. You are required to make 10 discussion posts over the semester – 5 direct posts and 5 replies to other students' posts. Each missing post or reply will count for 10% of your final Discussions post grade. Posts and replies must be at least one paragraph in length, be written by midnight on the day after class, and cover any aspect of the class; only one post and reply will be counted per class day.

Reading quizzes will cover the assigned daily reading at the start of the following class. They will include T/F questions and I will grade them on the following scale: - (1) 90% - (2) 80% - (3) 70% - (4) 60%. Quizzes are not optional. If you come to class, you must take the quiz, even if you have not done the reading. Missed quizzes (i.e., missed classes) will not count in your grade and you do not have to make them up.

The test may include multiple-choice, short answer, and short essay questions. You will complete a group presentation based on course readings and short research during the final unit on RING technologies. The semester review essay, in take-home format, will provide a comprehensive review of course themes.

Honor Policy
Students are expected to abide by the Georgia Tech honor code. All infractions will be handled through the Office of the Dean of Students and treated with the utmost seriousness.

Statement on Inclusion
The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society. (Statement taken from Ivan Allen College Dean's Office.)

Course Materials
There are no required textbooks. All reading material and course communication will occur through Canvas.

Course Schedule

> Introduction: Technology & society
> Tool-using societies
> > Prehistoric axes
> Craft-making societies
> > Gothic cathedrals
> > French bread (& baguette tasting)
> Industrial system-based societies
> > Fast vs. slow food
> The technological society
> > RING technologies

<u>Class schedule and readings</u> (subject to modification)

Introduction - Technology & society

Class 1   Course overview

Class 2   How should we think about technological change?
                 Reading: Neil Postman, "Introduction," "The Judgment of Thamus" in
                 Technopoly: The Surrender of Culture to Technology (1993)

Class 3   Smartphones & technological change
                 Reading: Ian Bogost, "The Cigarette of the Century" (*The Atlantic*,
                 2012);Sherry Turkle, "The Flight from Conversation" (*NYT*, 2012)

Class 4   What is technology? / Technology & society: An historical
                 outline Reading: David Nye, "Preface," "Can We Define
                 "Technology"?" in*Technology Matters: Questions to Live With*
                 (2006)

Tool-using societies

Prehistorical axes

Class 5   The Yir Yiront: A tool-using society
                 Reading: Lauriston Sharp, "Steel Axes for Stone-Age Australians" (Pts. I, II)
                 Review: Handout "Tools" (Canvas)

Craft-making societies

Medieval cathedrals

Class 6   Crafts and craft-making societies / Gothic cathedral building as craft architecture
                 Reading: Arnold Pacey, "Preface" and "The Cathedral Builders" in *The Maze of*
                 Ingenuity: Ideas and Idealism in the Development of Technology (1992)
                 Review: Handout "Crafts" (Canvas)

(pm)   Review session *(optional)*

French bread

Class 7   Bread making in 18th-century Paris / The baguette: A modern French
                 breadReading: Steven Kaplan, "Bread Making" in
                 The Bakers of Paris and the Bread Question, 1700-1775 (1996)
                 In-class activity: baguette tasting
                 Due: *Group essay (Canvas)*

Class 8   **Test**

Industrial system-based societies
Fast food vs slow food
Class 9   Industrialization of food production: cereals and meat

Class 10   Industrialization of food production: cereals and meat
               Debate introduction & sign-up
               Reading: Ted Steinberg, "The Secret History of Meat" in *Down to Earth: Nature's
               Rolein American History* (2002)
               Review: Handout "Machines" and "Systems" (Canvas)

Class 11   Fast food & slow food / Debate preparation
               Reading: George Ritzer, "An Introduction to McDonaldization" in *The McDonaldization
               of Society* (2004); Miele & Murdoch, "Slow Food" in *McDonaldization: The Reader*
               (2006)

Class 12   Debate preparation

Class 13   Debate preparation

Class 14   Debate preparation
               Due: Debate briefs

Class 15   *Class debate: Fast vs. slow food*

The technological society
Class 16   Introduction to the technological society
               Reading: J.R. McNeill, "Prologue: Peculiarities of a Prodigal Century" in *Something
               NewUnder the Sun: An Environmental History of the Twentieth Century World* (2000)

Class 17   Artificial intelligence, robotics, and the future of work
               Readings: See Canvas

Class 18   Genetic technologies & human enhancement
               Readings: See Canvas

Class 19   The Anthropocene, Sixth Extinction, & fate of the biosphere
               Reading: Christophe Bonneuil & Jean-Baptiste Fressoz, "Welcome to the
               Anthropocene"in *The Shock of the Anthropocene* (2017); J.R. McNeill "Biodiversity
               and the Sixth Extinction" in *Something New Under the Sun* (2000)

Class 20   Final class: The future of humanity
               Reading: Giorgos Zarkadakes, "The Future of Humanity" in *In Our Own Image:
               Savior or Destroyer? The History and Future of Artificial Intelligence* (2017)
               In-class discussion: "What is the future of humanistic values?"
               Due: Short response

               Final exams