

HSTY 452: Readings in the History of American Technology

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Office Hours: Monday and Wednesday 3:00 to 4:00, or by appointment, in Mather 304

Overview:

This course introduces major questions and approaches in the study of technology in American history: How have Americans made things and thought about the built world around themselves? How has the American relationship to technology changed over time? How has technology played a role in broader questions of American history?

Major topics include the development of technological systems; technology and gender; industrialization, mechanization, and labor; technologies of sound and space; the environment; computing; technology and warfare; and technology in American foreign relations.

Advanced undergraduates admitted by permission of Instructor.

Class Structure

Class meets once a week on Tuesday from 2:00 until 4:30 in Mather 203. As a graduate seminar, the focus is a close reading of weekly texts and a discussion of them. Students will rotate presenting introductions to the week's reading, after which follows a group discussion.

Assignments:

The requirements for this course are four-fold:

- 1) Discussions: All students are expected to read all assigned texts and be prepared for critical discussions. Among the participants, we will rotate leading our weekly discussion. Weekly leader responsible for presenting a 15-20 minute introduction to the work, focusing on identifying its key argument(s), sources, and historiographic significance (that is, how it relates to other books on a similar theme that preceded and followed it). Leader will also suggest a few important questions to spark discussion.
 - Note: reading relevant book reviews and review essays will help greatly. To find reviews, search for the book title under the "Advanced Search" page at JSTOR, limiting results to "Review." While logged into the campus VPN see <http://www.jstor.org/action/showAdvancedSearch>. With some overlap though also broader coverage, perform similar searches at "America: History and Life" and the "HistSciTechMed" accessible through the library's database

portal at <http://library.case.edu/databases/> (the latter database will be found under the title “History of Science, Technology, and Medicine”).

- 2) Reading Responses: Participants will also submit a two page response essay to the week’s readings to our Blackboard site. Please post by Monday, midnight, so everyone has a chance to read all the essays. Along with the weekly presentation, these essays serve to provoke discussion and sharpen our critical reading of the texts.
- 3) Mid-term book review: Due Monday, October 6. Students will write a 750 word (maximum) book review of a work in the history of American technology.
- 4) Final Historiographic Essay: Due Monday, December 1. Students will write a 10-12 page historiographic essay on the theme (ie, Gender and Technology, Computing, Energy, etc.) or historical process (industrialization, advent of commercial air travel, etc.) of their choice, analyzing, contextualizing, and comparing some 4-6 additional books within that theme.

Grades:

Grades will be determined as follows: 50% class participation, reading responses, and presentations; 20% mid-term book review, 30% final historiographic essay.

DISCLAIMER: Plagiarism in any form will not be permitted in this course. Plagiarism consists of appropriating others’ work as your own, whether intentionally or unintentionally, cited or not. If you have questions about appropriate citations, please let me know or consult the librarians at KSL.

Readings:

Required readings are listed in the syllabus below. Required books are available at the University Bookstore or on reserve at the KSL Circulation Desk. Also, see attached “Guide for Purchasing Books On-Line” for advice on tracking down less expensive copies of books. Other readings—essays, books sections, and other materials, will be made available on our Blackboard site.

Topics & Readings:

Tuesday, August 25

Introductions

Tuesday, September 1

Asking Big Questions, Writing the History of Technology

Melvin Kranzberg, “The Newest History: Science and Technology.” *Science*, 11 May 1962, **136** (3515): 463-8.

Leo Marx, "Technology: The Emergence of a Hazardous Concept." *Social Research* **64** (3): 965-88.

Eric Schatzberg, "Technik Comes to America: Changing Meanings of *Technology* before 1930." *Technology and Culture* **47** (3): 486-512.

SHOT Fiftieth-Anniversary Plenary Session papers by Thomas P. Hughes, Wiebe E. Bijker, Rebecca Herzig, and John M. Staudenmaier, *Technology and Culture* **50** (3): 594-630.

David Nye, *Technology Matters: Questions to Live With*. Cambridge: MIT, 2006.

Tuesday, September 8

Technology, Bodies, and Gender in Colonial America

Laurel Thatcher Ulrich, *The Age of Homespun: Objects and Stories in the Creation of an American Myth*. New York: Vintage, 2002.

OR, Joyce Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676*. Cambridge: Harvard, 2001.

Tuesday, September 15

Machines and Markets in Early National America

Lawrence A. Peskin, *Manufacturing Revolution: The Intellectual Origins of Early American Industry*. Baltimore: Johns Hopkins, 2003.

OR Angela Lakwete, *Inventing the Cotton Gin: Machine and Myth in Antebellum America*. Baltimore: Johns Hopkins, 2003.

Tuesday, September 22

Manufacturing and Industrialization

Hounshell, David A. *From the American System to Mass Production, 1800-1932*. Baltimore: Johns Hopkins University Press, 1984.

OR Wallace, Anthony F. C. *Rockdale: The Growth of an American Village in the Early Industrial Revolution*. Lincoln: University of Nebraska Press, 2005 [Knopf, 1978].

Tuesday, September 29

State and System

John Lauritz Larson, *Internal Improvement: National Public Works and the Promise of Popular Government in the Early United States*. Chapel Hill: University of North Carolina, 2001.

OR Richard John, *Spreading the News: The American Postal System from Franklin to Morse*. Cambridge: Harvard, 1998 [1995].

Tuesday, October 6

Technological Systems

Hughes, Thomas Parke. *Networks of Power: Electrification in Western Society, 1880-1930*. Baltimore: Johns Hopkins University Press, 1983.

OR Alfred D. Chandler, *The Visible Hand: The Managerial Revolution in American Business*. Cambridge: Harvard, 1977.

Tuesday, October 13

Communications and Culture

Fischer, Claude S. *America Calling: A Social History of the Telephone to 1940*. Berkeley: University of California Press, 1992.

OR Susan Smulyan, *Selling Radio: The Commercialization of American Broadcasting, 1920-1934*. Washington: Smithsonian Institution Press, 1994.

Tuesday, October 20

Fall Break: NO CLASS

Tuesday, October 27

Technology and Modern Culture

Thompson, Emily. *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*. Cambridge, MA: MIT Press, 2002.

OR Joseph Corn, ed., *Imagining Tomorrow: History, Technology, and the American Future*. Cambridge: MIT, 1986.

Tuesday, November 3

Cities and Countrysides

Melosi, Martin V. *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*, abridged edition. Pittsburgh: University of Pittsburgh Press, 2008.

[Or check out original edition of 2000: Melosi, Martin V. *The Sanitary City: Urban Infrastructure in America from*

Colonial Times to the Present. Baltimore: Johns Hopkins University Press, 2000.]

OR Shane Hamilton, *Trucking Country: The Road to America's Wal-Mart Economy*. Princeton: Princeton UP, 2008.

Tuesday, November 10

Computing

David Mindell. *Between Human and Machine: Feedback, Control, and Computing before Cybernetics*. Baltimore: Johns Hopkins University Press, 2002.

OR Donald MacKenzie, *Mechanizing Proof: Computing, Risk, and Trust*. Cambridge: MIT, 2001.

Tuesday, November 17

Technology and the Military

Leslie, Stuart W. *The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford*. New York: Columbia University Press, 1993.

OR Donald MacKenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. Cambridge: MIT, 1990.

Tuesday, November 24

The United States in the World

Adas, Michael. *Dominance by Design: Technological Imperatives and America's Civilizing Mission*. Cambridge: Harvard University Press, 2006.

OR Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America*. Cambridge: MIT, 1996.

Tuesday, December 1

Technology at the End of the 20th Century

To be determined based on class interests. Possible topics might include literature on the social construction of technological systems, technology in literature, or cultural history (or something else entirely).