CLASS OVERVIEW
This course will consider the ways in which technology, broadly defined, has contributed to the building of American society from colonial times to the present. Far from being an "add-on" to political and social events, technology is viewed as a central organizing theme in American history. Indeed, the United States is often referred to in today’s popular media as "the technological society." What does that expression mean? Why did it originate? How and in what ways does technology intersect with other strands of American history – society and politics, for instance? Does technology mean progress? If so, progress for whom and for what? What is the relationship between technology and democracy in America?

This course has three primary goals: to train students to ask critical questions of both technology and the broader American culture of which it is a part; to provide an historical perspective with which to frame and address such questions; and to encourage students to be neither blind critics of new technologies, nor blind advocates for technologies in general, but thoughtful and educated participants in the democratic process.

REQUIREMENTS
This class meets three times a week: on Mondays and Wednesdays there will be a 50-minute lecture or film and a recitation section led by Shane Hamilton. In addition to attending all classes, students are expected to participate in class discussions by reading the assigned materials before class and thinking about the themes, questions, and historical patterns the readings suggest.

Writing for this course will consist of a book report (5-6 pages), an assigned essay (11-12 pages), a revision of the assigned essay, and two or three reading response/reflection papers (2-3 pages). There also may be impromptu reading quizzes, depending on how well class discussions go. Specific instructions for these assignments will be forthcoming.
Due dates for the writing assignments are:

- **Book review:** Due March 12
- **Essay:** Due April 14
- **Revised essay:** Due May 9
- **Reading response papers:** each student will be assigned two or three dates on which they are expected to submit their response papers. These papers will be used by the instructors to initiate discussion during the recitation sections.

All written work must be typed, double-spaced, with adequate margins. All papers must be proofread (not just spell-checked!) before submission; papers will be downgraded for careless errors. A writing tutor, Jessica Weintraub, has been assigned to this class. Students who need extra help with writing will be notified by Professor Smith or Mr. Hamilton and, of course, can seek out Ms. Weintraub on their own.

There will be a three-hour final examination covering all material from the entire semester. This will occur during final exam week. Keep in mind that the lectures and readings for this course do not usually cover the same material, and lecture notes are not available in the library. This means that you must **take good notes** during the lectures to help you study for the final exam.

In this class, only parts of the lectures will make it onto the blackboard, so plan on taking notes on everything whether it is on the board or not. You might want to find a "lecture note buddy" in case you miss a class. There is no mid-term examination, but unannounced quizzes on the reading assignments and films are always possible.

Final grades will be determined as follows:

- **Book review:** 25%
- **Essay:** 30%
- **Reflection papers:** 20% (includes quizzes, if necessary)
- **Final examination:** 25%

**A WORD TO THE WISE**

Regular attendance, participation, and a good attitude are essential. Without all three you will not get much out of this course. Attendance will be taken and poor attendance will result in severe final grade penalties. Each student is allowed four (4) cuts. Thereafter one's final grade will be reduced by one full grade per cut.
Readings and Films

The following textbooks are required and may be purchased at the Tech Coop:


Films will be deposited at the Reserve desk in the Dewey Social Sciences Library immediately after their showing in class. Students who have missed seeing a film may view it in the Library.

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CLASS SCHEDULE

W  5 Feb 2003  **Introduction**  
**Film:** "A Man, A Plan, A Canal, Panama"

M  10 Feb  **What is technology?**  

W  12 Feb  **Technologies of colonization and conquest**  
**Read:** Smith & Clancey, pp. 26-60; Cowan, pp. 5-27.  
Artifacts: homespun cloth, tomahawk

T  18 Feb  **Crafts and craftsmanship in early America**  
**Read:** Cowan, pp. 28-65 (pp. 61-102 are optional).  
**Film:** "The Colonial Gunsmith" (Williamsburg)

W  19 Feb  **Homespun, guns, and shovels: artifacts from a transitional age**
Guest speaker: Dr. Greg Galer (Stonehill College)
Artifact: a piece of homespun woolen cloth, a Kentucky rifle; an Ames shovel

**M 24 Feb**
**Politics and early American industrialization**
**Read:** Smith & Clancy, pp. 103-142; Cowan, pp. 67-91.
Lecture: Technology and nationalism, c. 1790s-1800s

**W 26 Feb**
**Textiles, firearms, and the role of the state in early American industry** (Prof. Smith)
Lecture: From Swords to Plowshares: the domestication of military technologies prior to the Civil War (Prof. Smith)
Artifacts: cloth made at Lowell mills; Hall rifle (1826)

**M 3 Mar**
**Social and political implications of the new technology**
**Read:** Smith & Clancy, pp. 144-189.
Lecture: Technology and Politics (Prof. Smith)

**W 5 Mar**
**The transportation revolution**
**Read:** Cowan, pp. 93-118; Smith & Clancy, pp. 191-221-232.
Lecture: "System/Order/Uniformity": Army engineers and the rise of modern management (Prof. Smith)

**M 10 Mar**
**Art and industrialization**
**Read:** Cowan, pp. 208-218; also read Nathaniel Hawthorne's short story, "The Celestial Railroad" (handout)
Lecture: The railroad as a technological symbol in American art

**W 12 Mar**
**The emerging culture of engineering**
**Read:** Cowan, pp. 119-147; M. R. Smith, "Becoming Engineers" (essay handout).
**Film:** "The Iron Road"

***BOOK REVIEW DUE (March 12)***

**M 17 Mar**
**Technology, Civil War, and the rise of big business**
**Read:** Cowan, pp. 149-171-199; Smith & Clancy, pp. 234-263.
**Discussant:** Brendan Foley (Dibner Institute, MIT)

**W 19 Mar**
**Film:** "Brooklyn Bridge"

**24-27 Mar**
**SPRING VACATION**
M  31 Mar  Human Machines? Taylorism  
Film: "Clockwork"
Read: Smith & Clancey, pp. 267-311.

W  2 Apr  Automobility and mass production  
Read: Cowan, pp. 221-248;  
Smith & Clancey, 313-354.

M  7 Apr  Autos, trucks, and American culture

W  9 Apr  Film: "Modern Times" (1936, with Charles Chaplin)

M 14 Apr  Hobbyist worlds and modern America  
Lecture/discussion: David Lucsko  
***FIRST DRAFT OF ESSAY DUE (April 14)***

W 16 Apr  Aeronautics and the systems approach  
Reading: Cowan, pp. 249-256.  
Guest speaker: Dr. Deborah Douglas (MIT Museum)

M 21 Apr  PATRIOTS’ DAY - Holiday

W 23 Apr  World War II: A technological turning point?  
Read: Cowan, pp. 256-270.  
Guest speaker: Prof. David Mindell (STS, MIT)

M 28 Apr  Film: "The Day After Trinity"

W 30 Apr  A New World: Technology in Coldwar America  
Reading: Smith & Clancey, pp. 427-469.

M  5 May  Computers and control  
Reading: Smith & Clancey, pp. 471-496, 516-518; Cowan, pp. 273-299.  
also read David Noble, "Social Choice in Machine Design"  
(on reserve).  
Film: "Automation" (with Edward R. Murrow, 1957)

W  7 May  Nature's revenge  
Film: "Rachel Carson's Silent Spring"  
Read: Smith & Clancey, pp. 301-327, 384-426; Cowan, pp. 301-327.
M 12 May  
Technology and popular culture
Lecture: Shane Hamilton on the electric guitar

W 14 May  
Technology and terrorism: Sept. 11
Film: "MIT Teach-in"
Guest speaker: Prof. Rosalind Williams
LIST OF ACCEPTABLE BOOKS FOR REVIEW

Hugh G. J. Aitken, *Taylorism at Watertown Arsenal* (1960). A study of the introduction of scientific management at a government arsenal near here and the controversies it raised. This book also was re-issued in 1984 under the title *Scientific Management in Action*.


side of engineering.


Louis C. Hunter, *Steamboats on Western Rivers* (1949). The definitive work on steamboating on the Ohio and Mississippi Rivers. Be forewarned, however, it is a big book!


