

## Technology & Society in American History Course Syllabus

Course: HIST 151  
Offered at PSU – New Kensington

### Course Description:

Advanced technology is today a hallmark of American society. Most Americans know this, but few realize that the United States has been famous for its distinctive technology for at least a century and a half.

This course surveys technology in the United States from the colonial period through the late 20th century. By surveying some of the major American technological developments we will explore the economic, social, and environmental aspects of technology in the United States from the 18<sup>th</sup> century to the present. Special emphasis is placed on agriculture, manufacturing, transportation, and the household.

The main thrust of the course will be go beyond "how things work" to issues such as: How has technology evolved? Why has it changed? With what consequences?

### Required Readings:

(Purchase)

Purcell, *The Machine in the Garden: A Social History of Technology* (Baltimore: The Johns Hopkins University Press, 1995); ISBN: 0801848180

Hindle & Lubar, *Engines of Change: The American Industrial Revolution, 1790 – 1860* (Washington, D.C.: Smithsonian Institution Press, 1986); ISBN: 087474539X

### Etiquette:

Attending class and preparation are courtesies that we will extend to each other. I will attend class, and I will come prepared to lecture and engage in discussions on the assigned readings. I expect each of you to attend and be prepared to engage the course materials as well.

### Grades:

Grades will be determined based on the grades from quizzes, a mid-term exam, a cumulative final examination, and your personal participation in classroom discussions. Grading will be broken down as follows:

Quizzes	25%	A Mid-term Overall Grade will be based on work turned in to date. It is intended as an indicator of progress and does not affect your final grade.
Mid-Term Exam	25%	
Final Exam	30%	
Participation	20%	

### Academic Integrity:

All students are expected to act with civility and personal integrity; respect other students' dignity, rights, and property; and help create and maintain an environment in which all can succeed through the fruits of their own efforts. An environment of academic integrity is requisite for self and others in a civil community.

Academic integrity includes a commitment to not engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty including cheating or copying, plagiarizing, submitting another person's work as one's own, using Internet sources without citation, fabricating field data or citations, "ghosting" (taking or having another student take an exam), stealing examinations, tampering with the academic work of another student, facilitating other students' acts of academic dishonesty, etc.

Students charged with a breach of academic integrity will receive due process and, if the charge is found valid, academic sanctions may range, depending of the severity of the offense, from F for the assignment to F for the course.

The university's statement on academic integrity, from which the above statement is drawn, is available at <http://www.psu.edu/dept/oue/aapmm/G-9.html>.

**All quizzes and exams for this course will be closed book, closed notes.**

### **Class Meetings and Assignments:**

The following schedule of classes and assignments is subject to change based on student progress and availability of resources.

#### Week 1

Introduction to the History of Technology:

Terms and definitions, overview of theories and debates among historians of technology

Assignment: none

#### Week 2

Frontiers of Technology: The European – Native American Exchange, 1607 – 1750

Adaptation and persistence of the tools and techniques of agriculture, construction, manufacturing, and warfare

Reading: *The Machine in America*, 1 – 33, and *Engines of Change*, 27 – 58, 94 – 108

Pre-industrial America: From "the Colonies" to the "Early Republic"

From Workshop to Factory: Technological Change in an Agrarian Society

Reading: *The Machine in America*, 35 – 83, and *Engines of Change*, 59 – 93

#### Week 3

The "First" Industrial Revolution in the United States

What Changed, what didn't, and why?

Reading: *The Machine in America*, 87 – 107, and *Engines of Change*, 152 - 235

**A Hand-out will be issued for Sep. 17 class meeting**

Group Discussion: Technology and the Family Economy: Women at Work, Pt. I

Reading: Read "Overview" handed out in class, Sep. 17

#### Week 4 – Quiz covering Weeks 1 – 3

Internal Improvements: Nature, Politics, and Technological Choices

Reading: *Engines of Change*, 109 – 151

"Industrial Evolution:" From Waterpower to Steam

Reading: Review *The Machine in America*, 55 – 83, Read *Engines of Change*, 157 – 160

#### Week 5

Railroads and the "Second Industrial Revolution"

Reading: *Engines of Change*, 145 - 151

Mass Production, Pt. I: Manufacturing

Reading: Review *Engines of Change*, 218 - 235

Week 6

Mass Production, Pt. II: Agriculture

Reading: TBA

New Frontiers: Changes in Urban and Rural Landscapes

Reading: TBA

Week 7 – Mid-term Exam covering Weeks 1 – 6

Engineers

Reading: *The Machine in America*, 179 - 199

Week 8

The Metabolism of the City: Urban Infrastructure and Sanitation

Reading: *The Machine in America*, 203 - 228

Rivers by Design: Land Reclamation and Flood Control

Reading: 251 – 269

Week 9

Great Inventors: Edison, Westinghouse, and Electric Light

Reading: 203 – 228

Guest Lecture: "Railroad Passenger Travel"

Week 10

Great Innovators: Henry Ford and the Automobile

Reading: *The Machine in America*, 229 – 250

Group Discussion: Technology and the Family Economy: Women at Work, Pt. I

Reading: Read "Overview" handed out in class, Sep. 17

Week 11 – Quiz covering Weeks 7 – 10

The Control Revolution

Reading: None

Mechanizing the Household: Transforming the Domestic Workplace

Reading: None

Week 12

Modern Technology and the Great Depression

Reading: Review *The Machine in America*, 251 - 269

"Networks of Power": Electric Power Grids and Resistance to Change

Reading: None

Week 13

Broadcasting Technology: Wireless, Radio, and Television

Reading: Review *The Machine in America*, 230 - 38

**Thanksgiving Break**

No Class Meeting

Week 14

Military – Industrial Complex

Reading: *The Machine in America*, 279 - 319

The Internet

Reading: None

Week 15

Whither Technology

Film: *TBA*

Final Review Session

**Week 16 – Cumulative Final Exam Administered during Exam Week**