

HIUS 220/TCC 200
TECHNOLOGY IN WORLD HISTORY
Spring 2003

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Purpose of the Course

Along with language, technology is one of the elements that defines what it means to be human. Without technology, we humans would have no food to eat, clothes to wear, or protection for the elements. Without technology, we would lack the tools and artifacts we need to create art, practice religion, or even to think about many topics problems. Technology is essential to being human.

All too often, courses about technology--historical and otherwise--tend to take a scientific orientation and lose sight of the very human stories behind tools, artifacts, and systems. Numerous books offer chronicles of inventions and the scientific principles behind these inventions, but they do not tell us how and why particular technologies appear in different cultures.

This course will take a very different approach: its goal will be to reveal the human and cultural origins of the material world. By examining a variety of different cultures, we will explore how and why different peoples developed the tools and systems that they did. We will examine how practical needs, political structures and spiritual beliefs guided the development of new machines and how new technology often gave rise to new social roles and cultural values. By investigating cultures from the Stone Age to the Twentieth Century, by including both Western and non-western cultures, this course will provide a panoramic view of the role of technology in shaping human history, and will invite the student to compare and contrast the technological choices made by people around the world and across the centuries.

Lectures will be held on Monday and Wednesday, with discussion sessions scheduled on Wednesdays and Thursdays. The most important component of the class will be active participation in the weekly discussion sessions. Engineering students should register for TCC 200 but may participate in any discussion section.

Course Requirements

This course satisfies the second writing requirements for both SEAS and CLAS. Hence the assignments for the course are the following:

10%	5 page essay (Position Paper)
20	Mid-term Exam (in class)
25	12 page research paper
10	Oral presentation in discussion section
10	Participation in discussion section
25	5 page Take-Home Final Exam (cumulative)

Course Rules

Attendance: Students are expected to attend all lectures and all of the weekly discussion sections. Roll will be taken at each and every discussion section. If you cannot attend a discussion section, please contact your discussion leader, Mr. Nichols or Ms. Haffner, by email in advance of the session. Frequent absences in both the lectures and the discussion sections will hurt your grade.

Cell Phones: Out of respect for your fellow students, please turn off all cell phones at the start of the lecture or discussion section.

All work submitted for a grade must be pledged according to the University Honor Code. Any papers without a signed pledge **will be returned ungraded** to the student and will not be graded until a signed pledge is provided.

Written assignments should be typed on one side of the paper. Essay assignments should be double-spaced, using standard fonts (10 or 12 point) and one-inch margins. Any illustrations, diagrams, charts, and tables must be appropriately labeled and the source provided in the caption. Your name, course number, instructor's name, date, and name of the assignment should appear on each paper. Please be sure to **staple** multi-page assignments and **number** the pages. Do not submit papers in clear plastic report folders; I will simply throw the folder away! **Always make and keep a copy of each assignment.**

All papers must be carefully **proofread**. You may use a spell-checker on your papers, provided that the program does not automatically change misspelled words. Any paper with more than **three** typos will not be graded and returned to the student for correction.

The due dates for the assignments are listed on a schedule which will be distributed shortly. All assignments are due either at class time or by 5 PM on the due date. Any late assignments will lose a **full letter grade** for each day that they are late.

While I anticipate that all students will pass this course, previous unpleasant experiences require that I explain to you the ways in which it is possible to **fail** this course. First, you can flunk if you do not turn in all of the assignments and/or the quality of your work is below what I deem to be the acceptable minimum. Second, I have the option to fail you if you do

not submit any or all of the assignments on the due dates. And third, you can fail if you have an inordinate number of absences, excused or unexcused.

Because I have childcare obligations before class and may sometimes be delayed, I ask that you wait for me for **20 minutes** before leaving the classroom.

Readings

Four books are required for this course. The main text, *Technology in World History*, (TWH) has not yet been published and will be made available to you via a website. Chapters from TWH will be most likely put up in the materials section of Toolkit. The other three books are available in the UVA Bookstore.

W. Bernard Carlson, *Technology in World History* (New York: Oxford University Press, forthcoming).

William H. McNeill, *A World History*, 4ed. (New York: Oxford University Press, 1999).

Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1992).

Geoffrey Parker, *Compact History of the World* (New York: Barnes & Noble, 2001).

A few additional readings, listed below, will be made available via electronic reserve.

All reading assignments should be done prior to coming to class, and above all, **PRIOR TO GOING TO DISCUSSION SECTION**. Should it become clear that students are not keeping up with the readings, the TAs and I reserve the right to give unannounced reading quizzes.

Schedule and Assignments

Remarks:

1. All of the written assignment dates are firm.
2. The topics and reading assignments leading up to the Midterm are firm, but I may add some readings and adjust the topics in the second half of the course.

I. Introduction

15 January Introduction to the Course

20 January Key concepts
Carlson, "Introduction to TWH"

II. Survival Regimes

- 22 January The Stone Age
Geselowitz, "The Stone Age"
Pringle, "New Women of the Ice Age"
Parker, 12-15
- 27 January Copper, Bronze, Iron, and Steel
Trevor Williams et al., *A History of Invention*, 71-81 (chapter on
metals and metal-working)

III. Agricultural Societies

- 29 January The Agricultural Revolution and Mesopotamia
Diamond, *Guns, Germs, and Steel*, 104-42
Parker, 16-22
McNeill, 3-26
- 3 February Ancient Egypt
Carlson, "Ancient Egypt, TWH"
Parker, 22-23
McNeill, 27-47
- 5 February Ancient China
Bray, "Ancient China" TWH
Parker, 38-9
Position Paper Assignment given out
- 10 February Pacific Cultures and India
Damon, "Pacific Cultures" and Pfaffenberger, "Ancient and
Classical India, TWH
Parker, 28-9
- 12 February Hittites and Greeks
Geselowitz, "Ancient Mediterranean"
Parker, 30-5
McNeill, 133-48
Position Paper Due (5 pages)
- 17 February Hero's Steam Engine
Green, "Technological Developments: Science as Praxis" from
Alexander to Actium
- 19 February The Romans
Carlson, "The Romans"
Parker, 36-7 and 40-1
McNeill, 149-65

Term Paper Topic Due (1 page)

24 February Aztec and Maya Civilizations
Sabloff, "Aztec and Maya" TWH
Parker, 24-25 and 72-3

26 February **Midterm Exam**

3 March SPRING BREAK

5 March SPRING BREAK

IV. Trading Societies

10 March Islam
Glick, "Islamic Empire" TWH
Parker, 50-1
McNeill, 210-220

12 March Africa
Killick, "Africa," TWH
Parker, 26-27 and 58-9

17 March Imperial China
Bray, "Imperial China," TWH
Parker, 46-7, 68-9, 94-5
Mokyr, 209-238

19 March Medieval Europe
Long, "Medieval Europe"
Parker, 44-5, 48-9, 54-5, 66-7
Mokyr, 31-56
McNeill, 256-69

24 March The Renaissance and Exploration
Carlson, "Early Modern Europe," TWH
Parker, 74-81 and 86-7
Mokyr, 57-80

26 March Early Modern Europe
Parker, 82-3 and 90-1
McNeill, 301-26

V. Industrialization

31 March The Industrial Revolution in Britain I
Carlson and Bruland, "Industrialization of Europe," TWH

Parker, 98-103
Mokyr, 81-112

- 2 April The Industrial Revolution in Britain II
 McNeill, 417-40
- 7 April The Industrialization of America
 Read Carlson, "The Industrial Revolution in North America,"
TWH
 Parker, 104-5
- 9 April The Rise of Big Business and Consumer Society in America
 Read Carlson, "The United States, 1870-1970" TWH
 Parker, 120-1
- 14 April Steel, Electricity, and Oil
 Mokyr, 113-150
 Parker, 126-7
- 16 April Nazi Germany and the Soviet Union
 McNeill, 490-515
 Parker, 134-7, 140-1, 148-9, 164-5
 Coopersmith, "Nazi Germany and the Soviet Union"
Term Paper Due (12 pages)

VI. Information

- 21 April An Age of Information? Communications and Electronics
 Carlson, "The World since 1970," TWH
 Parker, 166-171
- 23 April Globalization and Population
 McNeill, 516-552
 Parker, 172-7
- 28 April Conclusion
Take-Home Exam given out
- 3 May **Take-Home Final Due**