

Technology in Western Culture
ENGI 3301H; HIST 3395H, 13529

Spring 2007, MW 2:30-4:00, AH 201

Instructor of record: Dr Helen K Valier, hkvalier@uh.edu
Room 204B, The Honors College at the University of Houston

technic, *a.* and *n.*

A. *adj.*

1. Pertaining to art, or to an art: = TECHNICAL. Now *rare*.
2. Skilfully made or constructed. [After Gr. (Hippocrates).] *rare*1.

B. *n.*

1. A technical term, expression, point, or detail; a technicality. Chiefly *U.S.* *rare*.
2. **a.** Technical details or methods collectively; the technical department of a subject; *esp.* the formal or mechanical part of an art (now chiefly *U.S.*; more commonly TECHNIQUE, *q.v.*).
- b.** Collective pl. **technics** in same sense: also construed as a singular.
3. The science or study of art or arts, *esp.* of the mechanical or industrial arts: = TECHNOLOGY 1. Usually in pl. **technics**.

We shall study the technological bases of Northern European culture. We view the industrialization of Europe and America as a process that began in eighth century Europe and continued through and beyond the Industrial Revolution. But we also refer to Ancient, African, Arabic, and Oriental influences on Western technology. The approach is roughly, but not strictly, chronological. We shall, however, be interested to follow certain themes -- agriculture, energy, public health, etc. -- and see how they weave together.

Learning outcomes

1. Students will learn to think critically about the role of technology in human life.
2. Students will recognize different views of the connection between technology and 'progress'.
3. Students will be able to write coherent accounts of the social history of technology in agriculture, industry, communications, warfare, medicine, non-western cultures and domestic technology.

Time and place

The class will be held MW 2:30-4:00, AH 212.

How to contact me

My office hours are MW 11:00-12:00, 204B, Honors College (second floor of the MD Anderson Library: walk in through the main doors and turn right before you enter the library; my office is amongst the faculty offices towards the back of the College). For appointments at times other than my office hours, please call 713-743-9021 or email hkvalier@uh.edu.

What the Honors (H) designation means

This is an open-enrollment Honors class; you do not need to be enrolled with The Honors College to join. If you are a member of The Honors College, however, this class will meet your requirement of an upper-level Honors Colloquia. As an Honors course, this class includes significant amounts of writing and discussion; however, I am happy to provide whatever help and support you need so just let me know!

Pre-requisites

Junior-level standing is normally required, except with my permission.

Classroom expectations

This is a class in which student-instructor and especially student-student interaction is **strongly** encouraged. If you keep up with the readings and make an effort to get involved in class discussion you will drastically improve your chances of an A grade in this class. I for my part will try to provide interesting lectures and stimulating topics for discussion, and I will also make myself very available outside class to help you with the work this course entails. **Please note though that class disruption of any kind will not be tolerated.** Repeated instances lateness and gossiping in class is incredibly annoying to both me and to your fellow students. I will not hesitate to drop you from the course and assign you the grade of F if your behavior in class is offensive in this way.

Plagiarism

Plagiarism is cheating and it can get you thrown out of the University, or, at the very least, result in an F grade and a note in your personal file. Not citing a source (including web-pages), or copying sections of text from books, on-line essays and web-pages are common acts of plagiarism that I, unfortunately, come across every single semester. Take it from me going through a plagiarism disciplinary investigation is a horrible experience for everyone. If you are short of time on an essay don't give in to the temptation to cheat, just come to me as soon as you can and we'll sort something (legal!) out. Full details of the University's penalties and procedures for cases of plagiarism can be found in the Student Handbook.

Students with disabilities

Please let me know as soon as possible if you require any accommodation to allow you full, fair and equal participation in this course.

Course mechanics and explanation of terms

Class attendance is compulsory and you will be asked to sign in: **5 or more absences will result in a loss of 10%** of your final grade figure, with **an additional 2% loss per absence thereafter**. Your overall grade will otherwise be calculated as follows:

1. Quizzes	15%
2. 1 group assignment	15%
3. 2 response papers (paper 1 worth 15%, paper 2 worth 25%)	40%
4. Final	30%

1. Quizzes: These will be short and, if you do the readings and mostly always come to class, sweet. The easiest 15% you ever made in other words.

2. Group assignment: This will take place during week 10 (the week after spring break) and there will be no classes held that week. Assignments will be distributed later in the semester. Each of you will individually produce a **3 page** report on the work done by the group.

3. Response papers: There will be **two** of these **each of 3 pages** in length. You may use whichever citation system you wish to, but you **must** include a bibliography. I will distribute suggested paper topics a few weeks before each of these papers are due. There is some flexibility in modifying topics to meet personal interests, but do speak to me first please!

4. Final: there will be a written 90 minute final scheduled for the end of semester; the final will cover course themes from across the semester.

Book list

The following course texts will be supplemented with readings that I will make available to you **via web-ct**, and also readings taken from **Professor John Lienhard's *Engines of Our Ingenuity* KUHF-radio website: <http://uh.edu/engines/>**

Donald Cardwell, *Wheels, Clocks and Rockets* (WW Norton & Co. Inc, 1995)
ISBN: 0393321754

David Nye, *American Technological Sublime* (MIT Press, 1994)
ISBN: 0262640341

Arnold Pacey, *Technology in World Civilization: A Thousand Year History* (MIT Press, 1990)
ISBN: 0262660725

Class schedule

Week one: Introduction to class mechanics and course themes

15th Jan MLK day, no class

17th Jan Why do the history of technology at all? Pacey pp 3-19.

Weeks two & three: Technology in the ancient world

22nd Jan Pacey, pp 1-19.

24th Jan Pacey, pp 20-37.

29th Jan Pacey pp 38-57.

31st Jan readings from web-ct.

Week four: Gunpowder and New Worlds.

5th Feb Cardwell pp 20-37.

7th Feb Pacey pp 73-91.

Week five: Clockwork and Christianity: The Scientific Revolution in Western Europe

12th Feb Cardwell pp 75-91

14th Feb Cardwell pp 91-101

Weeks six and seven: Industrial Nations: Power and technological revolution(s)

19th Feb Pacey pp 108-130.

21st Feb Readings from web-ct.

26th Feb Cardwell pp 153-177.

28th Feb Nye pp 109-142.

Week eight: Control and Communication: Railways and telegraphy

2nd April Pacey pp 131-149.

4th April No reading: **Reponse paper 1 due.**

Week nine: Spring Break, no classes

12th-16th March.

Week ten: group work period, no classes

19th & 21st March.

Week eleven: Waging industrial war

26th March Cardwell pp 364-394.

28th March Nye pp 225-237. **Group assignment paper due.**

Week twelve: The American technological sublime

2nd April Nye pp 199-224.

4th April Nye pp 237-256.

Week thirteen: Environment and technology transfer

9th April Pacey pp 187-207.

11th April Reading from web-ct.

Week fourteen: Small-scale technologies

16th April Cardwell pp 457-484.

18th April No reading: **Response paper 2 due.**

Week fifteen: Towards a philosophy of technology

23rd April Cardwell pp 485-513.

25th April No reading.

Week sixteen: Conclusion

30th April Last day of class: no reading: discussion and exam preparation.