

Residential College SocSci 382
History 396-006 (meets with RC SocSci 382)
Winter, 2002
TTh 10:00-12:00, 122 Tyler, Residential College

History of Time

Time plays a central role in human affairs, from the hourly rhythm of a single day to the slow stages of an individual life to the organization of enduring human institutions such as governments and cultures. Temporal coordination is thus a very important socio-technical problem. To use and understand time, societies have produced a plethora of techniques and mechanisms: natural cycles, clocks, communication systems. Experiences, uses, and technologies of time differ widely among cultures.

This course will investigate three threads in the history of time. First, we'll examine the social history of timekeeping technologies, including their role in the history of science and technology. Second, we'll compare concepts and uses of time in different cultures and in history. Finally, we'll explore the individual experience of time, as shaped by social institutions and technological life-worlds. Together, these intertwined threads will lead students to discover very broad, deep, but usually taken-for-granted connections between technology, science, social life, history, and individual experience.

In addition to factual historical studies, readings include a novel and meditations on the experience of time. Several films will be screened.

This course counts as an elective toward the new Academic Minor in Science, Technology & Society (<http://www.umich.edu/~umsts>). Meets Upper Level Writing Requirement.

Prerequisites: none. Open to juniors and seniors. Sophomores admitted by permission.

Instructor:

Prof. Paul N. Edwards
Office Hours:
 Tuesday 4-5 at 301D West Hall
 Thursday 12-1 at 104 Tyler, East Quad

Reading:

Required books

The abbreviation preceding the title identifies the book in the course schedule.

TP: Barnett, Jo Ellen. *Time's Pendulum: The Quest to Capture Time, from Sundials to Atomic Clocks*. New York: Plenum Trade. 1998.

HH: Dohrn-van Rossum, Gerhard. *History of the Hour: Clocks and Modern Temporal Orders*. Chicago: University of Chicago Press. 1996.

Faster: Gleick, James. *Faster: The Acceleration of Just About Everything*. New York: Pantheon Books. 1999.

TAL: Grudin, Robert. *Time and the Art of Living*. New York: Ticknor & Fields. 1988.

BHT: Hawking, S. W. *A Brief History of Time: From the Big Bang to Black Holes*. Toronto ; New York: Bantam Books. 1998 (tenth anniversary edition — do NOT buy the original 1988 edition).

Borderliners: Høeg, Peter. *Borderliners*. New York: Farrar Straus and Giroux. 1994.

CT: Lestienne, Rémy. *The Children of Time: Causality, Entropy, Becoming*. Urbana: University of Illinois Press. 1995.

GC: Stillman, Anne. *Grammatically Correct: The Writer's Essential Guide to Punctuation, Spelling, Style, Usage and Grammar*. Writers Digest Books. 1997.

(C): Coursepack (available at Excel starting January 13)

Recommended books

Sobel, Dava. *Longitude: The True Story of a Lone Genius who Solved the Greatest Scientific Problem of His Time*. New York: Walker. 1995.

All books except the coursepack are also on reserve at the undergraduate library.

Website:

The course website lists the readings and allows you to submit assignments electronically. <http://coursetools.ummu.umich.edu/2002/winter/rcssci/382/001.nsf>

Assignments and Expectations:

- (1) **Class attendance is required.** You can miss up to 3 class sessions during the semester without penalty. After that, **each** missed class will result in a one-third letter grade reduction in your final course grade. For example, if your grade should be a B+ but you missed a total of six classes during the semester, you would receive a C+ instead, or the equivalent mention on your narrative evaluation (RC students).

In the past, some students have tried to get around this policy by pretending that someone in their family died. For that reason, if you need to miss classes because of a death in the family, I will need you to submit a copy of the death certificate.

Similarly, I will need a signed statement from a doctor if you miss class because you're sick.

For these reasons, I strongly suggest that you not miss classes early in the semester. Save your "skip" days for later in the semester, when you'll really need them.

- (2) Your **participation in discussions** is extremely important for the health of a seminar-style class. Class participation is not graded separately, but will be taken strongly into account in determining your final grade. Completing the course reading on time is essential for the quality of your participation. It's usually obvious when you aren't prepared.
- (3) Four **reaction papers** (500–750 words), reflecting on and reacting to course readings. (Each essay is 5 percent of course grade.)
- (4) Three **experiential essays** (800–1200 words), on how time affects the structure of people's lives, memories, and concepts of the past and future. (Each essay is 10 percent of course grade.) For example, you might:
 - Keep a journal of your experiences of time for a week.
 - Interview an older person about how his/her experience of time has changed across a lifetime.
 - Interview a child about his/her understanding of time.
 - Conduct a "clock fast," avoiding timepieces altogether for several days or longer, and reflect on your experience.

Revisions: you must choose two of these assignments for careful revision and resubmission. You can revise others, if you wish; this may (or may not) improve your grade.

- (5) Typed **critiques** (500–700 words each) of two other students' papers (one grade for both; 10 percent of course grade).
- (6) A **term project** (3000–4000 words) on a subject of your choice. This can be a traditional paper, or it can be a website, fictional story, or other creative endeavor. No matter what the medium, the same amount of text is required. If you want, you can collaborate on a project with another student; both of you receive the same grade. (30 percent of course grade.)

History 396: Students taking the course under the History 396 number must write a nonfiction term paper on a historical subject.

In all cases, this paper will be written in three stages:

- (a) A 300–500 word *prospectus*, clearly describing the topic and how you plan to carry out the project, is due in class on February 12th.
- (b) A *full-length, high-quality draft* is due in class on March 26th. It will be returned within a week, with comments and suggestions for revisions.

(c) The *final version*, edited, revised, and proofread, will be due at the final class session.

NB: You must complete all of the assignments, and you must achieve a passing grade in **each** of the above components in order to pass the class.

Extension policy: no extensions, period. Don't even think about it.

Plagiarism is a serious academic crime for which you can be expelled from the university. You **MAY NEVER, UNDER ANY CIRCUMSTANCES**, copy more than a couple of words borrowed from somebody else without quoting and citing the source (including page numbers). Write in your own words, paraphrasing rather than copying when you want to discuss someone else's work. If you borrow ideas from someone else, you must cite the source, even if you do not use the other person's words.

Course Schedule

Readings marked (C) are contained in the coursepack.

I. Introduction

January 8 (Tuesday) — **Introduction**

January 10 (Thursday) — **Time and Human Experience**

Reading: TAL, Chapter 1 (pp. 1–30)
HH, Chapter 1

II. Technologies of Time: Calendars

January 15 (Tuesday) — **Calendars of the Ancient World**

Reading: A. Aveni, *Empires of Time*, Chapters 5, 7–8 (C)

— *Experiential essay #1 due in class* —

January 17 (Thursday) — **Calendars and Clocks in Ancient China**

Reading: A. Aveni, *Empires of Time*, Chapter 9 (C)
D. Landes, *Revolution in Time*, 1–47 (C)

January 22 (Tuesday) — **Religious Cosmologies**

Reading: *The Bible*: books of *Genesis* and *Ecclesiastes* (excerpts – C)
The Bhagavad-Gita, Chapters 8–11 (C)

— *Reaction paper #1 due in class* —

January 24 (Thursday) — **The Western Calendar**

Reading: A. Aveni, *Empires of Time*, chapters 3–4 (C)

— *Revised version of experiential essay #1 due in class* —

January 29 (Tuesday) — **Living in Time**

Reading: TAL, Chapters 11, 2–3. Read Chapter 11 first.

— *Reaction paper #2 due in class* —

III. Technologies of Time: Clocks

January 31 (Thursday) — **Medieval Timekeeping**

Reading: HH, Chapters 2–3 (carefully) and Chapter 4 (read quickly, but thoroughly).

Recommended: TP, Chapters 2–3

February 5 (Tuesday) — **Time and Experience in Medieval Europe**

Reading: HH, Chapters 5–7. Read Chapters 5 and 7 carefully; read Chapter 6 quickly.

Recommended: TP, Chapters 4–8

— *Reaction paper #3 due in class* —

February 7 (Thursday) — **Modern Temporal Orders**

Reading: HH, Chapter 8

February 12 (Tuesday) — **Time in Science**

Reading: CT, Introduction and Chapters 1–6
TP, Chapter 10

Film: *Longitude*

Recommended: D. Sobel, *Longitude*

— *Prospectus for final project due in class* —

February 14 (Thursday) — **Labor, Time, and Value**

Reading: K. Marx, *Capital*, vol. 1, Chapters 1 and 6. Read parts 1, 2, and 4 of chapter 1 carefully; read part 3 of Chapter 1 quickly. Read Chapter 6 carefully. (C)
F. W. Taylor, *Principles of Scientific Management* (excerpts — read quickly) (C)

February 19 (Tuesday) — **Work Discipline**

Reading: Thompson, E. P., “Time, Work Discipline, and Industrial Capitalism,” in Customs in Common (London: Merlin Press, 1991), 352–403.
HH, Chapter 9

— *Reaction paper #4 due in class* —

February 21 (Thursday) — **Living in Time**

Reading: TAL, Chapters 4, 8–9

March 5 (Tuesday) — **Time and Institutions**

Reading: *Borderliners* (entire book). Read this over Winter Break. You'll get much more out of this book if you read it slowly, with concentration. Give yourself time to read it well and enjoy it.

IV. Time in Cosmology and Science

March 7 (Thursday) — **Relativistic Time**

Reading: CT, Chapters 7–8
BHT, Chapters 1–4

March 12 (Tuesday) — **In the Beginning**

Reading: CT, Chapters 9–11
BHT, Chapters 5–9

Film: *Powers of Ten*

— *Experiential essay #2 due in class: **bring 3 copies*** —

March 14 (Thursday) — **Geological Time**

Reading: TP, 189–307

March 19 (Tuesday) — **Time and Biology**

Reading: CT, Chapters 12–17, Epilogue

Recommended: CT, Chapters 18–19 (we will not read these in class)

— Critiques due in class —

V. Culture, Memory, and History

March 21 (Thursday) — **Memory and Identity**

Reading: TAL, Chapter 12

Film: *Memento*

— Revised version of experiential essay #2 due in class —

March 26 (Tuesday) — **Different Temporal Worlds**

Reading: Wylie, John. 1995. "The White Man's Book: The Sense of Time, the Social Construction of Reality, and the Foundations of Nationhood in Dominica and the Faroe Islands." In *Time: Histories and Ethnologies*, eds. Diane Owen Hughes, and Thomas R. Trautmann. Ann Arbor: University of Michigan Press. Pp. 31–70 (C)

— Draft of final project due in class —

March 28 (Thursday) — **Historical Consciousness**

Reading: Collingwood, R. G. "The Historical Imagination," in The Idea of History (Oxford: Clarendon Press, 1993), 231–249. (C)
White, Hayden, "Introduction" to Metahistory: The Historical Imagination in 19th Century Europe (Baltimore: Johns Hopkins, 1973) (C)

VI. "Our" Time: A World on the Go

April 2 (Tuesday) — **Standard Time**

Reading: Bartky, Ian R., "The Adoption of Standard Time," Technology and Culture, Vol. 30, No. 1 (1989), 25–56.

Davison, Graeme. 1992. "Punctuality and Progress: The Foundations of Australian Standard Time." *Australian Historical Studies* 25: 169–91

Recommended: TP, Chapters 11–13

April 4 (Thursday) — **Speed**

Reading: *Faster*, pp. 3–120

Recommended: TP, Chapter 14

April 9 (Tuesday) — **Traveling in Time**

Reading: *Faster*, pp. 121–216

Film: *12 Monkeys*

— *Experiential essay #3 due in class:* —

April 11 (Thursday) — **Even Faster**

Reading: *Faster*, pp. 217–end

April 18 (Thursday) — **Conclusion** — **NOTE DATE!!**

Reading: TAL, Chapter 4

Eno, Brian, “The Big Here and Long Now,”

<http://www.longnow.org/about/articles/BrianEnoLongNow.html>

— *Final draft of final project due in class* —

— *NO LATE PAPERS. NO EXCEPTIONS. NO KIDDING.* —