

History of Science 555, Spring 2006
Undergraduate Seminar
Topic: Technology, Medicine and Science in the 1960s-Enthusiasts and Critics

1:20-3:15 Tuesdays, 6109 Social Science

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Description:

This capstone seminar for History of Science majors introduces students to the process of doing history, not just reading about it. The course will guide students through the steps involved in writing an original research paper using primary sources. These steps include selecting a topic, finding and interpreting sources, constructing an argument, and writing and revising the paper.

The topic for this semester is technology, medicine and science (STM) in the long 1960s, the period from the launch of Sputnik by the Soviet Union in 1957 through the fall of Saigon to the Vietnamese Communists in May 1975. Between these two dates, American society and culture experienced a profound transformation in which STM played a major role. Americans after WWII were enthusiastic about science and technology, which they hoped would bring about a radically better future, but Americans also feared the dangers of science and technology epitomized by nuclear weapons. Sputnik redoubled both the enthusiasm and the fears, prompting dreams about space travel while increasing anxieties about Soviet nuclear missiles. Debates over STM swirled throughout this turbulent period, starting with the movement to stop the testing of nuclear weapons. Some technical professionals even began to question the consequences of developments in their own fields. Biologists lamented the destructive power of chemical pesticides, engineers decried the poor safety engineering of the automobile, physicians argued for alternatives to medicalized childbirth, and government-funded scientists lamented the corrupting effects of government funding. Increasingly in the 1960s, young people began questioning the basic dichotomies of the Cold War, particularly with regard to Vietnam. This rising tide of dissent engulfed STM as well, raising doubts among many Americans about the supposed automatic benefits of new technologies. The environmental movement, feminist critiques of male-dominated medicine, and the movement for socially responsible science were examples of this intense public questioning of STM at the end of our period.

Requirements:

This is a tough course; expect it to be your most intense course this semester. There are two main requirements and a series of smaller assignments. Participation in discussion is also required.

- The first requirement is a major research paper, about 20 pages long, based mainly on primary sources. This paper is due on April 4, a mere 11 weeks from the beginning of the semester. You will revise this paper in response to my comments and comments from a classmate; the revised version is due May 11 during exam week. Each version of the paper will be graded separately.
- The second requirement is a formal talk summarizing the results of your paper. This talk will be about 12 minutes long, with 3 minutes for questions. Talks will be scheduled for the last two weeks of the course.
- Every week there will be a smaller assignment designed to guide you through the research and writing process, teaching you the advanced skills needed for the research paper.

Requirements (continued from previous page):

- Much of the class time will be devoted to discussion. Please come to class prepared to discuss the readings or your research. Much of the learning in this class will come from your classmates.
- Your paper will require footnotes and a bibliography, and you will need to provide citations for the smaller assignments as well. You are required to use the Chicago/Turabian citation style for footnotes and bibliography. The basics of this style are available here:

<http://www.wisc.edu/writing/Handbook/DocChicago.html> ; for more detail, consult Kate L.

Turabian, *A Manual for Writers of Term Papers, Theses, and Dissertations*, any recent edition.

Please follow these rules so I don't have to correct you on things you should have learned in your Comm A class.

Getting help:

Some of you will never have written a research paper. Others will have very little experience with the UW libraries. Some of you may have trouble writing clearly. Some of you are certainly terrified of public speaking. Please let me know if you need help in any of these areas, because help is available. But don't try to muddle through, because this class is too small and too intense for that.

The UW Writing Center is a great resource for a course like this. Everyone can benefit from its services; even my Ph.D. students use it. The Center's consultants will help you with clarity of prose, organization, and argument. They are especially helpful for shorter writing assignments, but they can help you with the longer paper too. The Center has been increasingly popular recently, so it can be difficult to get appointments, especially late in the semester. Please use the syllabus to schedule appointments well in advance. Learn more about the center here:

<http://www.wisc.edu/writing/> .

Class Etiquette:

I know that the latest story in *The Onion* is more interesting than footnote punctuation, but please don't read newspapers or surf the Net on your laptop when class is underway. Most of this class will be discussion. During discussion, address your remarks to the class, not to me. Try to respond to your classmates by name. Always respond respectfully to your classmates, even if you disagree strongly with them.

Feel free to discuss with me any problems you have with the course; I'll fix them if I can.

Grades:

Roughly, here are the weights I will give to the various requirements; I reserve the right to fiddle with these to insure fairness, given the fact that some topics are much more difficult than others.

- The paper (both versions together): 50%; presentation: 10%; discussion and weekly assignments: 40%.

Course Books and Readings:

There are no required books for this course, although you should expect to do more reading in this course than in any other course this semester.

A course packet will be available for purchase from the History of Science department office, 7143 Social Science (262-1406). I'll send an email when it is ready, most likely at the beginning of the second week of classes.

NO RETURNS ARE PERMITTED, even if you drop the class.

If you wish to consult the readings on reserve, please let me know and I will make a copy available at College Library.

Email:

I will use an email list to communicate with the class, including sending assignments for reading responses and essays. The address of the list is "histsci555-1-s06@lists.wisc.edu". In all correspondence with me about the course, please begin the subject line with "HS555".

Because this class meets only once a week, I require some assignments to be submitted by email on the Monday before the class to make my response more timely. Feel free to send your assignment as an attachment, but please use the following naming convention: "HS555-yourname-week#"; for example, "HS555-Johnson-week3.doc".

Religious Holidays and ADA Notice:

You can take off any religious holidays you want, as long as you make up the work. Instructors are not supposed to schedule tests on the more popular religious holidays. If necessary, I'll give observant students an alternative but equivalent assignment.

If you have a disability that might affect your performance in this course, let me know and I'll do my best to accommodate you. For more information, contact the McBurney Disability Resource Center, 263-2741.

Freaking Out:

College life often involves a lot of stress. If you feel like things are getting out of hand, either for personal or academic reasons, please contact the Counseling and Consultation Service, part of the University Health Service, 905 University Avenue, 265-5600. For more information, see <http://www.uhs.wisc.edu/>; click on "Counseling Services" on the left side of the page.

Course Outline

Week 1 (1/17) - Introduction to Historical Research

What it means to produce original, scholarly historical scholarship; background on the period and topics that will be the focus on the seminar. Discussion of assignment for next week, which is to examine the sources used in a chapter of a book by a leading American historian. Distinction between primary and secondary sources.

Week 2 (1/24) - From Sources to Narrative

Drawing on the sources examined by the class, we will discuss the relationship between Boyer's sources and his text. Research methods: how to find primary sources.

Reading: Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age*, repr. ed. (Chapel Hill: University of North Carolina Press, 1994), 3-26, 370-373 (chap. 1 plus endnotes).

Assignment: following the instructions in the handout, locate the sources in Boyer's endnotes; carefully read two of these sources and write a one or two-page discussion of their relationship to Boyer's text.

Week 3 (1/31) - Questioning STM in the long 1960s, I

Discussion of the readings for this week, starting with Hodgson's survey of postwar America.
Research method: finding secondary sources.

Overview reading: Godfrey Hodgson, "The 1940s," and "Abundance," chaps. 2 and 3 in *America in Our Time* (New York: Vintage, 1976), 17-64.

Primary-source readings: E. Rabinowitch, "Responsibilities of Scientists in the Atomic Age," *Bulletin of the Atomic Scientists* 15 (Jan. 1959): 2-7;

Ralph Nader, "The Safe Car You Can't Buy," *The Nation* 188 (April 11, 1959), 310-13 and "Fashion or Safety," *The Nation* 197 (Oct. 12, 1963), 214-16;

Jacques Ellul, "The Technological Order," *Technology and Culture* 4 (1962): 394-421.

Assignment: 1) read carefully, consulting the questions I will distribute, to prepare for discussion; 2) using the methods discussed in class, identify at least three primary sources on a topic related to this course. Locate these sources and write a brief description of their content, no more than one double-spaced page. List the sources on a separate page using Turabian bibliography formatting.

Week 4 (2/7) - Questioning STM in the long 1960s, II; Finding a Research Topic

Discussion of key issues in the later 1960s of relevance to STM. Research: how to find a topic.

Readings: Normal L. Rosenberg and Emily S. Rosenberg, *In Our Times: American Since World War II*, 6th ed. (Upper Saddle River, N.J.: Prentice-Hall, 1999), 111-199;

Robert Gottlieb, "The Sixties Rebellion," chap. 3 in *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington, DC: Island Press, 1993), 81-114;

E. F. Schumacher, "Industrialisation Through Intermediate Technology," in *This I Believe and Other Essays* (Foxhole, Dartington Totnes, Devon: Green Books, 1997), 130-42;

Ellen Frankfort, *Vaginal Politics* (New York: Quadrangle Books, 1972), ix-xviii.

Assignment: 1) prepare for discussion on the readings; 2) using the techniques discussed in class, find a cluster of at least three related SECONDARY sources. You must have at least one journal article and at least one book or book chapter. Using no more than one page, describe what unites these sources and explain how you located them.

Week 5 (2/14) – Thinking Like a Historian

The tasks of the historian.

Reading: Richard Marius, *A Short Guide to Writing About History*, 3rd ed. (New York: Addison-Wesley-Longman, 1999), 1-12, 29-48 (introduction, chap. 2).

Assignment: Write up your preliminary ideas about a research topic. Obtain at least five NEW primary and secondary sources (some of each) relevant to this topic. Include an annotated bibliography describing the content of each source in one or two sentences.

Week 6 (2/21) - Letting Research Question Drive Your Research

Focusing your topic and defining problems that will drive your research.

Reading: Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, *The Craft of Research* (Chicago: University of Chicago Press, 1995), 35-84.

Assignment: after doing the assigned readings, plunge back into research to find and read more sources. Be sure you have identified the best tools for finding primary sources for your topic. Now is a good time to talk with a reference librarian, particularly the reference librarians at specialized libraries for your topic (Ebling for medicine, Wendt for engineering, etc.).

Write a short paragraph discussing your revised topic; also discuss the strategies and bibliographic tools you are using for your research. Include an updated annotated bibliography. I'll be concerned if you have less than 10 good sources at this point; you should also have a mix of primary and secondary sources (heavier on the primary), including both books and articles.

Week 7 (2/28) - Constructing Your Argument

Modes of historical writing; how to formulate a good argument.

Reading: Marius, *A Short Guide to Writing About History*, 3rd ed., 49-71 (chap. 3).

Assignment: after reading Marius, write up a summary of your argument, clearly stating the proposition you hope to prove, the type of evidence you will use to support it, and the reason the reader should care (the answer to the "so what" question). Email the assignment to me by **6:00 pm Monday**.

Week 8 (3/7) - Structuring Your Paper to Support the Argument

How to organize a research paper.

Reading: Jacques Barzun and Henry F. Graff, "Organizing: Paragraph, Chapter, and Part," chap. 9 in *The Modern Researcher*, 5th ed. (Fort Worth, TX: Harcourt, Brace, Jovanovich, 1992), 201-23.

Assignment: By **6:00 pm Monday**, email me a provisional outline of our paper, stating the argument and describing the main sections you will use to develop the argument.

Spring Break (3/14)

Use spring break for more research.

Week 9 (3/21) - Writing with Style; Tricks of the Historian's Trade

How to communicate your argument effectively. Sign up for individual meeting next week.

Reading: Joseph M. Williams, *Style: Ten Lessons in Clarity and Grace*, 3rd ed (New York: HarperCollins, 1989), 1-63 (skip the exercises).

Assignment: write one self-contained, temporally ordered story on some aspect of your research, drawing mainly on primary sources. Do not exceed four double-spaced pages. Pay careful attention to what Williams terms the grammar of clarity and cohesion. Include footnotes.

Week 10 (3/28) - Individual Meetings; No Class

With papers due in two weeks, this is a crucial time to make sure that you have a solid argument and a good structure for your paper.

Assignment: by Monday evening, email me your revised outline and a list of sources.

Week 11(4/4) - Mechanics of the Research Paper

Lecture on technical details of the research paper, including use of quotations, footnotes and bibliography (boring but important). Bring specific questions to class related to your papers.

Reading: <http://www.wisc.edu/writing/Handbook/DocChicago.html> . Review the material in the pages linked by the first three bullet points.

Assignment: Practice producing correct footnotes for a section of your draft, at least five pages. Bring the draft with footnotes to class for peer editing.

Week 12 (4/11) - PAPERS DUE; Strategies for Revision

I will discuss strategies for revising your papers and explain my expectations for peer review.

Assignment: Hand in your completed, polished paper; bring a second copy to exchange with a classmate. Remember this version is not a draft, but rather a finished paper, and it will receive its own grade.

Week 13 (4/18) - How to Give an Oral Presentation; Discussion of Revisions

You will share your peer-review comments with your classmate, and I will give advice on oral presentations. (If necessary we will have a few presentations this week.)

Assignment: carefully read and comment on your classmate's paper following the instructions in the handout; remember to bring in two copies of your comments, one for me and one for the author of the paper.

Weeks 14 and 15 (4/25 and 5/2) - Final Presentations

Participants will present formal summaries of their research results and respond to questions.

Assignment:

- 1) Present a polished, 12-minute summary of your research paper.
- 2) If you are not presenting, keep working on your revisions.

Final Paper, due Thursday, May 11, 2:00 pm