

**HISTORY OF TECHNOLOGY, ENVIRONMENT, AND MEDICINE:  
THEORY AND METHOD**

**1945 — PRESENT**

Rutgers, Newark: Spring 2011  
Graduate Course: History 635  
Location: Conklin 324  
Time: Wednesday 5:30-8:10 PM

**Instructor:**

Professor Neil Maher  
Federated Department of History  
NJIT—Rutgers University, Newark

**Office Hours:**

Mondays, 2:00-4:00 p.m., Cullimore (NJIT), Room 325  
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And by appointment

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**COURSE DESCRIPTION:**

This readings course will focus on the technological, environmental, and medical history of the post-World War II era. In an effort to place this history within its broader cultural context, the semester's readings will include works that explore this period in both the United States and beyond its borders. The semester will begin with a four-week introduction to the three fields under consideration — the history of technology, environmental history, and the history of medicine and health. We will then spend the rest of the semester reading innovative works that attempt to bridge these three historical methodologies. All of these readings will engage historical categories such as race, class, gender, consumption, politics, and the human body in an effort to better understand the numerous social movements of this period, from civil rights and the women's movement to environmentalism, the counterculture, and the rise of conservatism. Finally, the class will examine several theoretical approaches used to conceptualize this complex relationship between the history of technology, environmental history, and the history of medicine and health during the postwar era.

**REQUIREMENTS:**

**Attendance and Class Participation:** Attendance in graduate classes is required — no unexcused absences will be tolerated. Class participation should involve active listening and engagement — more than simply showing up, and more than sheer volume of oral output.

**Readings:** Weekly reading assignments will average one book and one article per week, so plan accordingly. In general, the book will emphasize an important aspect of the post-World War II history of technology, environment, and medicine while the article will discuss theory and/or method in historical research. While I do not expect you to read every word, you should understand and be comfortable discussing the factual content of the work as well as the author's argument and his or her use of sources. You should also be able to think critically about the theoretical and methodological issues raised by the readings. Please try to purchase the books for the class; the first three books are available at New Jersey Books, which is located at the corner of University and Bleeker streets (it is cheaper than the Rutgers Bookstore). You should order the other books for the course online at Amazon or Abebooks (you should do this immediately). You can purchase used copies of these books, but please make sure you are buying the correct edition (year published) of each book. The assigned articles are available online through our Moodle website (which is the NJIT version of Blackboard).

**Papers:**

During the course of the semester, you will be asked to write two short essays, and a longer final paper. The goal of the shorter essays is to help jump-start you on your final paper. We will discuss all three paper assignments in more detail as the due dates for them approach.

***Short Essay #1: Methodological Analysis:***

Your first paper of the semester will be a four-page methodology analysis of the readings from the first four weeks of the course (up to and including week 4). For this paper you will compare and contrast the methodologies of these historians – you will focus your analysis on how each historian “does” their history. This will entail an examination of each historian's source materials, both primary and secondary. The paper is due in class during week 4 (February 9<sup>th</sup>).

***Short Essay #2: Theme Analysis:***

Your second paper of the semester will be a four-page analysis of a specific theme that is explored by the authors of the books from Part II of the course up until spring break (weeks 5-8). For this paper you will choose one theme that is explored in all of these books, and compare and contrast how each author engages this particular theme. The paper is due in class during week 8 (March 9<sup>th</sup>, before you leave for spring break).

***Final Historiographical Paper:***

You will also be asked to write a final paper 12-15 pages in length (please try to keep within these limits). For this paper, students will identify an historical theme that appears throughout much of the literature we have read over the course of the semester, and write an essay comparing and contrasting the various methodologies used by historians of technology, environmental historians, and historians of medicine and health in analyzing this particular theme. The goal for this assignment is for students to combine a thematic (short essay #2) and methodological (short essay #1) analysis of the course reading.

***Final Paper Outline:*** To help organize and conceptualize your final paper, you will also be asked to submit a detailed outline of your project. The outline should include a brief paragraph explaining your argument. The outline is due in class on April 6 (week 12).

**HisTEM Concentration:**

While in this M.A. program you must choose a major and minor field of study. The concentration in the History of Technology, Environment and Medicine/Health is unique in its integration of three relatively new historical sub-disciplines. The rapid growth of these three fields in recent years reflects greater awareness among professional historians and the general public of the significance of broader issues concerning technology, the environment, medicine, and health in contemporary life. As these issues loom larger in the consciousness of society, so does the need to learn more about their historical origins, causes, and patterns of development. The major field in the History of Technology, Environment and Medicine/Health has been specially constructed to meet this growing need. Major: 18 credits (6 classes); Minor: 6 credits (only two classes).

#### **GRADING:**

Attendance and Participation:	50%
Written Assignments:	50%

Consistent effort and improvement will be weighted heavily in grading.

#### **REQUIRED TEXTS:**

- Adam Rome, *Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (New York: Cambridge University Press, 2001)
- Barron Lerner, *Breast Cancer Wars: Hope, Fear, and the Pursuit of a Cure in Twentieth-Century America* (Oxford University Press, 2001)
- David Mindell, *Digital Apollo: Human and Machines in Spaceflight* (MIT Press, 2008)
- John Krige, *American Hegemony and the Postwar Reconstruction of Science in Europe* (MIT Press, 2006)
- Jennifer Light, *From Warfare to Welfare: Defense Intellectuals and Urban Problems in Cold War America* (Johns Hopkins University Press, 2005)
- Mary Dudziak, *Cold War Civil Rights: Race and the Image of American Democracy* (Princeton University Press, 2000)
- James Gibson, *The Perfect War: Technowar in Vietnam* (Atlantic Monthly Press, 2000) NOTE: Make sure to get 2000 edition.
- Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (Routledge, 1989)
- Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago University Press, 2006)
- Elizabeth Siegel Watkins, *On the Pill: A Social History of Oral Contraceptives, 1950-1970* (Johns Hopkins University Press, 2001)
- Margaret Pugh O'Mara, *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley* (Princeton University Press, 2005)
- Thomas Frank, *The Conquest of Cool: Business Culture, Counterculture, and the Rise of Hip Consumerism* (Chicago University Press, 1997)

#### **WEEKLY ASSIGNMENTS:**

### **PART I: INTRODUCTIONS**

**WEEK 1: WHAT ARE THEORY AND METHOD? (January 19)**

No Required Reading:

**WEEK 2: LOCATING THE HISTORY OF TECHNOLOGY (February 9)**

Required Reading:

David Mindell, *Digital Apollo: Human and Machines in Spaceflight*  
Jeffrey Stine and Joel Tarr, "At the Intersections of Histories: Technology and the Environment," *Technology and Culture* 39 (October 1998): 601-640

**WEEK 3: DEFINING ENVIRONMENTAL HISTORY (January 26)**

Required Reading:

Adam Rome, *Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism*  
Mart Stewart, "Environmental History: Profile of a Developing Field," *The History Teacher* 31 (May 1998): 350-368

**WEEK 4: IDENTIFYING THE HISTORY OF HEALTH (February 2)**

Required Reading:

Barron Lerner, *Breast Cancer Wars: Hope, Fear, and the Pursuit of a Cure in Twentieth-Century America*  
Brandt, Allan, "Emerging Themes in the History of Medicine," *Milbank Quarterly*, 69, no. 2 (1991) p. 199-214

**PART II: CROSSING BOUNDARIES**

**WEEK 5: THE COLD WAR (February 16)**

Required Reading:

John Krige, *American Hegemony and the Postwar Reconstruction of Science in Europe*  
Richard White, "The Nationalization of Nature," *Journal of American History*, 86, 3 (1999): 976-986

**WEEK 6: THE MILITARY INDUSTRIAL COMPLEX (February 23)**

Required Reading:

Jennifer Light, *From Warfare to Welfare: Defense Intellectuals and Urban Problems in Cold War America*  
Matthew Farish, "Creating Cold War Climates: The Laboratories of American Globalism," in J.R. McNeill and Corinna R. Unger, eds., *Environmental Histories of the Cold War*, 51-84.

**WEEK 7: CIVIL RIGHTS (March 2)**

Required Reading:

Mary Dudziak, *Cold War Civil Rights: Race and the Image of American Democracy*

Thomas Bender, "Wholes and Parts: The Need for Synthesis in American History," *Journal of American History*, Vol. 73, no. (June, 1986), 120-136

Nell Irvin Painter, "Bias and Synthesis in History," *Journal of American History*, vol. 74, no. 1 (June 1987), 109-112

**WEEK 8: VIETNAM (March 9)**

Required Reading:

James Gibson, *The Perfect War: Technowar in Vietnam*

David Zierler, "Against Protocol: Ecocide, Détente, and the Question of Chemical Warfare in Vietnam, 1969-1975," in J.R. McNeill and Corinna R. Unger, eds., *Environmental Histories of the Cold War*, 227-256.

**WEEK 9: SPRING BREAK (March 16)**

**WEEK 10: POSTWAR SCIENCE (March 23)**

Required Reading:

Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (excerpts)

Charles Rosenberg, "Framing Disease: Illness, Society, and History," in Charles Rosenberg and Janet Golden, eds., *Framing Disease: Studies in Cultural History*, xii-xxvi

**WEEK 10: FIELD TRIP — YALE EH CONFERENCE (March 26)**

Required Reading:

Yale Pre-circulated Papers to be announced

**WEEK 11: THE COUNTERCULTURE (March 30)**

Required Reading:

Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*

Robert Heilbroner, "Do Machines Make History?," in Merrit Roe Smith and Leo Marx, eds., *Does Technology Drive History: The Dilemma of Technological Determinism*, 54-65

Robert Heilbroner, "Technological Determinism Revisited," in Merrit Roe Smith and Leo Marx, eds., *Does Technology Drive History: The Dilemma of Technological Determinism*, 67-78

**WEEK 12: SECOND WAVE FEMINISM (April 6)**

Required Reading:

Elizabeth Siegel Watkins, *On the Pill: A Social History of Oral Contraceptives, 1950-1970*

Joan W. Scott, "Gender: A Useful Category of Historical Analysis," *The American Historical Review*, Vol. 91, No. 5. (Dec., 1986), pp. 1053-1075

**WEEK 13: NO CLASS- ASEH CONFERENCE, PHOENIX (April 13)**

Required Reading:

None— Already done for Yale Conference

**WEEK 14: SUBURBANIZATION (April 20)**

Required Reading:

Margaret Pugh O'Mara, *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley*

Bruno Latour, "Give Me a Laboratory and I Will Raise the World," in K. D. Knorr-Cetina and M. J. Mulkay, eds., *Science Observed*

**WEEK 15: CONSERVATISM (April 27)**

Required Reading:

Thomas Frank, *The Conquest of Cool: Business Culture, Counterculture, and the Rise of Hip Consumerism*

Bethany Moreton, "Make Payroll, Not War: Business Culture as Youth Culture," in Bruce Schulman and Julien Zelizer, eds., *Rightward Bound*, 52-70.