HSCI 5533: Advanced Studies in the History of Modern Science, Medicine, and Technology: Technology, Media, and the Construction of Modernity

Course Description:
This course is an introduction to the history of modern technology, with a focus on the joint social and technological construction of a distinctively modern life. As one goal of the course is to introduce graduate students to a variety of approaches and perspectives, some readings will present a more traditional econo-technical story of development, while others will emphasize social and political decisions, cultural meanings, and everyday experiences. The focus will be on Western technology and culture, though a number of works have a global or comparative perspective. In addition, as a reflection of my own interests and in hopes of integrating the guest speakers for this semester’s “History of Media” course, media technologies will receive extra attention.

Course Mechanics:
We will meet each week on Wednesday from 1:30 to 4:20 in the seminar room. We will break for 10-15 minutes at some point in the second hour. Each week there will be a common core reading or readings that all students are to read. Each student is to turn in a short written commentary on the core reading for that week: these commentaries should consist of one paragraph summarizing the main argument of the reading, one paragraph of commentary relating the reading to another work or works we have covered (or a related work that you have read in another course), and one paragraph of personal reflection (usually consisting of questions it raised for you, things you found surprising, critiques you might have, connections to your own experience, or some such personal engagement with the reading). You should circulate your response essay electronically to the whole class (including me) by 11 am Wednesday. Length is not the priority on these responses essays; clarity and conciseness are.

Twice during the semester, you will also read one of the readings listed as supplemental readings for a given week. You will prepare and circulate a response essay for that reading as well, and you should be prepared to discuss how that supplemental reading adds to/parallels/changes/challenges the argument set forth in the main reading. It is a good idea to choose supplemental readings that will be relevant to your research paper; if the ones listed aren’t, talk with me and we can adapt things.

The major assignment for this course will be a research paper on some aspect of the history of modern technology. For those whose primary interests are in the history of science or of medicine, papers that deal with the intersection of technology and science/medicine are perfectly acceptable (and I define technology rather broadly). These papers should be roughly 6000-7000 words in length, including notes (i.e. 20-25 pages). You should meet with me early on in the semester to start developing a topic for your paper and a strategy for researching and writing it. In the middle third of the semester (October), you will make a brief presentation to the class about your topic, the questions you are asking, the key primary sources you intend to use, and the secondary sources that seem most relevant. The resulting discussion of this progress report should help you move forward into the final stage of research and writing. You will circulate a draft of your paper to the whole class (and me) by noon on Monday the last week of class (Dec. 5). The last day of class we will set aside at least 30 minutes per paper to discuss your paper drafts. You will then have a week to revise your paper before turning it in on Dec. 14. These are hard deadlines; if you anticipate problems meeting them, talk to me ahead of time to make alternate arrangements.
COURSE SCHEDULE

Week 1, August 24: Background and a Big Picture.

Week 2, August 31: Approaches—systems, actors, cultures, meanings.

Week 3, September 7: Theme: early modern states and the transformation of nature
Reading: Francesca Bray, *Technology and Gender: Fabrics of Power in Late Imperial China* (1997); Burke and Pomeranz, "Introduction" to *The Environment and World History*;

Week 4, September 14: Theme: socio-cultural histories of early industrialization in Europe and the U.S.
Reading: Christine MacLeod, *Heroes of Invention: technology, liberalism, and British identity, 1750-1914*, (2010).

Week 5, September 21: Theme: technology and military power/the military revolution

Week 6, September 28: Theme: The Creation of the Media

Week 7, October 5: Theme: the recorded experience
Week 8, October 12: Theme: broadcast media
Reading: Susan Douglas, Listening In (2004).
Supplements: Susan Douglas, Where the Girls Are; Michele Hilmes, ed., The Radio Reader; Eric Barnouw, Tube of Plenty; Doherty, Cold War, Cool Medium; Richard Butsch, The Making of American Audiences or The Citizen Audience; Jason Mittel, Television and American Culture (2009); Lynn Gorman and David MacLean, Media and Society in the 20th Century (2009);

Week 9, October 19: Theme: the second industrial revolution and transformation of work and business
Reading: Thomas Hughes, American Genesis (2004)
Supplements: Alfred Chandler, The Visible Hand; Phil Scranton, Endless Novelty; David Hounshell, From the American System to Mass Production; Alfred Chandler and James Cortada, A Nation Transformed By Information; Anson Rabinbach, The Human Motor;

Week 10, October 26: Theme: the transformation of the everyday
Supplements: Robert Rydell, All the World's a Fair; Oldenziel and Zachmann, Cold War Kitchen; Ruth Schwartz Cowan, More Work for Mother; Gail Cooper, Air-Conditioning America; Christine Cogdell, Eugenic Design; Jeffrey Meikle, 20th Century Limited (2001)

Week 11, November 2: Theme: 20th century tech and state power
Supplements: Gabrielle Hecht, The Radiance of France; Richard Rhodes, The Making of the Atomic Bomb or Dark Sun or Twilight of the Bombs; MacDougall, The Heavens and the Earth; Hecht, ed., Entangled Geographies: technopolities and empire in the Global Cold War; Suzanne Moon

Week 12, November 9: Theme: the industrial transformation of nature
Reading: Sarah Pritchard, Confluence (2011);

Week 13, November 16: Theme: late modern technology and the transformation of space and time
Reading: Joy Parr, Sensing Changes (2010).
Supplements: Manuel Castells, The Rise of the Network Society; David Harvey, The Condition of Postmodernity; Graham and Marvin, Splintering Urbanism; Jimena Canales, A Tenth of a Second; Stephen Kern, The Culture of Time and Space; Kevin Lynch, The Image of the City; John Urry, Mobilities

Week 14, November 23: No Class. Thanksgiving Holiday.

Week 15, November 30: Theme: digital culture
Reading: Paul Edwards, The Closed World (1997);
Supplements: Fred Turner, From Counterculture to Cyberculture; N. Katherine Hayles, How We Became Posthuman; Jenkins and Thorburn, Democracy and New Media, Convergence Culture; Bennett and Strange, TV as a Digital Medium; Manuel Castells, Mobile Communications and Society; Green and Haddonb, Mobile Communications; Carr, The Big Switch;

Week 16, December 7: Theme: a big picture?
Readings: student paper drafts; Hunter Heyck, Artifice draft (time permitting).