Course Description

This course will provide an introduction to the scholarly literature in the history of technology and will examine how the historiography has changed from the late twentieth century to the present. We will read across time and place, considering classic texts in the field as well as more recent works, some of which adopt global or comparative frameworks. We will explore the intellectual foundations of the field as well as intersections with other fields, including the history of science, environmental history, business history, and the history of capitalism. (Our reading list is not comprehensive but rather designed to introduce a range of approaches and topics that students may pursue in more depth in their qualifying exam lists and/or their own research.)

Major questions will include the following: How has the “social construction of technology” shaped the scholarship of the past twenty years? How have histories of race, class, and gender intersected with histories of technology? How do national, comparative, and global frameworks shape narratives of technological change? How does the “the dilemma of technological determinism” account for structure and agency? How have politics and technologies shaped each other historically? How do networks, systems, and infrastructures allow us to conceptualize technological change? How do historiographical critiques of ideologies of progress relate to historical considerations of technological enthusiasm? What is the relationship between aesthetics and materiality in the history of technology?

The course is divided into four thematic units (on infrastructures, environments, economies, and representations), and specific topics will include communication and transportation networks, automobility, electrification, nuclear power, industrial agriculture, climate modeling, technologies of war and empire, invention and innovation, domestic labor and household technologies, commodity futures trading, timekeeping, acoustics, and photography.

Course Requirements

Coursework consists of weekly readings, weekly discussion questions (to be posted to our course Sakai blog by 7 PM each Wednesday), a short book review (3-5 pages), and a final historiographical essay (12-15 pages) on a topic of your choosing. In addition, students will take turns introducing the readings each week. Required books will be available for purchase at the Rutgers Bookstore and online at Amazon, etc. Additional articles, essays, and book chapters will be available on Sakai.
Required books
Deborah Fitzgerald, Every Farm a Factory: The Industrial Ideal in American Agriculture (Yale, 2010.) Paperback.

Grading
50% Participation
10% Book review
40% Historiographical essay

Schedule
4 September: Definitions and Debates (**No discussion questions due this week**) 
Philip Scranton, “Determinism and Indeterminacy in the History of Technology,” in Merritt Roe Smith and Leo Marx, eds., Does Technology Drive History? The Dilemma of Technological Determinism (MIT Press, 1994), 143-68. [Sakai]
Edmund P. Russell, “Can Organisms be Technology?” in Stephen Cutcliffe and Martin Reuss, eds., The Illusory Boundary (UVA Press, 2010), 249-262. [Sakai]


**Part I: Infrastructures**

11 Sept: Networks and Connectivity


Recommended: Robert MacDougall, “The Wire Devils: Pulp Thrillers, the Telephone, and Action at a Distance in the Wiring of the Nation,” *American Quarterly* 58, no. 3 (2006): 715-41. [Sakai]

18 Sept: Mobility and Large Sociotechnical Systems


Recommended: Christopher Wells, *Car Country: An Environmental History* (University of Washington Press, 2013), prologue & chap. 4. [Sakai]

25 Sept: Power, Technopolitics, and Culture


**Part II: Environments**

**2 Oct: Industrial Agriculture in the U.S. and the World**
Deborah Fitzgerald, *Every Farm a Factory: The Industrial Ideal in American Agriculture* (Yale, 2010).


**9 Oct: Climate Modeling and Geoengineering**


**16 Oct: Technologies of War & Empire**


Part III: Economies

23 Oct: Innovation and Inventors


30 Oct: Gender, Production, and Consumption
Francesca Bray, *Technology and Gender: Fabrics of Power in Late Imperial China* (UC Press, 1997), introduction & chaps. 4 & 6. [Sakai]

Kathleen Franz, *Tinkering: Consumers Reinvent the Early Automobile* (Penn, 2005), introduction & chap. 2. [Sakai]

6 Nov: Information and Markets  *Book reviews due on or before 6 Nov.*


**Part IV: Representations**

13 Nov: Temporalities
Mark M. Smith, *Mastered by the Clock: Time, Slavery, and Freedom in the American South* (UNC Press, 1997), introduction & chap. 4. [Sakai]


20 Nov: Aesthetics

Recommended: David Stradling, *Smokestacks and Progressives: Environmentalists, Engineers, and Air Quality in America, 1881-1951* (Johns Hopkins UP, 1999), chap. 3. [Sakai]

**Tues 25 Nov**: NO CLASS—READING WEEK
4 Dec: Conclusions and Future Directions in the History of Technology


*Final papers due on or before 15 Dec* (to be submitted in hard copy to my mailbox in Van Dyck)