

**HIST 632**  
**Technology, Culture and History**

**Tuesdays, 6-8:55pm**  
**Cullimore 307**

**Professor Elizabeth Petrick**

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Office Hours: Thursdays 1-3pm or by appointment

**Course Description:**

This course concerns the relationship between technology and culture, and how it has been studied over time. We will examine how each has shaped the other in various historical contexts. We will analyze methods of researching and understanding technology and culture through key texts in the historiography, as well as new approaches. Themes include: the use of technology; gender, race, and technology; technological determinism; labor and technology; imperialism and technology.

**Required Books:**

Lynn White, Jr., *Medieval Technology and Social Change*. (Oxford: Oxford University Press), 1962.

Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America*. (Oxford: Oxford University Press), 1964.

Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. (Oxford: Oxford University Press), 1981.

Howard P. Segal, *Technological Utopianism in American Culture*. (Syracuse, NY: Syracuse University Press), 1985 or 2005.

Donald Mackenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. (Cambridge, MA: MIT Press), 1990.

Francesca Bray, *Technology and Gender: Fabrics of Power in Late Imperial China*. (Berkeley, CA: University of California Press), 1997.

Gregory J. Downey, *Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950*. (New York: Routledge), 2002.

Carolyn de la Peña, *The Body Electric: How Strange Machines Built the Modern American*. (New York: NYU Press), 2003.

Stephanie Ricker Schulte, *Cached: Decoding the Internet in Global Popular Culture*. (New York: NYU Press), 2013.

Eden Medina, *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile*. (Cambridge, MA: MIT Press), 2014.

Dinesh C. Sharma, *The Outsourcer: The Story of India's IT Revolution*. (Cambridge, MA: MIT Press), 2015.

### **Assignments:**

Discussion Lead x2 (15% each)

Every student will sign up to lead discussion twice. You will present a thorough summary and analysis of your chosen week's readings. You will also share a list of discussion questions on Moodle no later than the Monday night before your class.

Participation (20%)

Final Paper – 15-25 pages (50%)

Historiographical research paper on a subject of your choice (to be approved by me).

***Late Paper Submissions: Papers will lose one grade for every day late (A to A-, A- to B+).***

***Paper Formatting: All papers must be typed, double-spaced, 12 pt standard font (Times, Helvetica, Arial, etc), 1" margins. For digital submission, only the following file types are accepted: pdf, doc, docx.***

***Grading Scale (for assignments):***

<b>96-100</b>	<b>A+</b>
<b>93-95</b>	<b>A</b>
<b>89-92</b>	<b>A-</b>
<b>86-88</b>	<b>B+</b>
<b>83-85</b>	<b>B</b>
<b>79-82</b>	<b>B-</b>
<b>76-78</b>	<b>C+</b>
<b>73-75</b>	<b>C</b>
<b>69-72</b>	<b>C-</b>
<b>66-68</b>	<b>D+</b>
<b>60-65</b>	<b>D</b>
<b>0-60</b>	<b>F</b>

### **Academic Integrity:**

Students are required to follow the University Code on Academic Integrity. Plagiarism will not be tolerated. For details, see: <http://www.njit.edu/academics/integrity.php>

## **Class Schedule:**

### **Week 1 (9/5): Theoretical Approaches**

Langdon Winner, "Do Artefacts have Politics?" *Daedalus*, Vol. 109, No. 1, (Winter, 1980), pgs. 121-136.

Trevor Pinch and Wiebe Bijker. "The Social Construction of Facts and Artifacts," in W. E. Bijker, T. P. Hughes, T. Pinch, eds. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. (Cambridge, MA: MIT Press) 1987. pgs 17-50.

Thomas P. Hughes. "The Evolution of Large Technological Systems," in W. E. Bijker, T. P. Hughes, T. Pinch, eds. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. (Cambridge, MA: MIT Press) 1987. pgs 51-82.

### **Week 2 (9/12): Technological Determinism**

Lynn White, Jr., *Medieval Technology and Social Change*. (Oxford: Oxford University Press), 1962.

Merritt Roe Smith. "Technological Determinism in American Culture," in Merritt Roe Smith and Leo Marx, eds. *Does Technology Drive History?* (MIT Press, 1994). pgs 1-35.

### **Week 3 (9/19): Technology, Culture and Environment**

Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America*. (Oxford: Oxford University Press), 1964.

*Optional:* Jeffrey K. Stine and Joel A. Tarr, "At the Intersection of Histories: Technology and the Environment," *Technology and Culture*, Vol. 39, No. 4 (Oct., 1998), pp. 601-640.

### **Week 4 (9/26): Industrialization and Imperialism**

Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. (Oxford: Oxford University Press), 1981.

### **Week 5 (10/3): Technological Utopia**

Howard P. Segal, *Technological Utopianism in American Culture*. (Syracuse, NY: Syracuse University Press), 1985 or 2005.

### **Week 6 (10/10): Social Construction of Technology**

Donald Mackenzie, *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*. (Cambridge, MA: MIT Press), 1990.

*Optional:* Gabrielle Hecht and Paul N. Edwards, "The Technopolitics of Cold War: Toward a Transregional Perspective," (American Historical Association, 2008; republished in M. Adas, ed., *Essays on Twentieth Century History*, Temple, 2010, pgs 271-314)

### **Week 7 (10/17): Domestic Technologies and Gender**

Francesca Bray, *Technology and Gender: Fabrics of Power in Late Imperial China*. (Berkeley, CA: University of California Press), 1997.

*Optional*: Ruth Schwartz Cowan, "The "Industrial Revolution" in the Home: Household Technology and Social Change in the 20th Century" *Technology and Culture*, Vol. 17, No. 1 (Jan., 1976), pp. 1-23.

### **Week 8 (10/24): Technology and Labor**

Gregory J. Downey, *Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950*. (New York: Routledge), 2002.

*Optional*: Philip Scranton, "None-Too-Porous Boundaries: Labor History and the History of Technology," *Technology and Culture*, Vol. 29, No. 4, Special Issue: Labor History and the History of Technology (Oct., 1988), pp. 722-743.

### **Week 9 (10/31): Technology and the Body**

Carolyn de la Peña, *The Body Electric: How Strange Machines Built the Modern American*. (New York: NYU Press), 2003.

### **Week 10 (11/7): Imagining Technology**

Stephanie Ricker Schulte, *Cached: Decoding the Internet in Global Popular Culture*. (New York: NYU Press), 2013.

*Optional*: Thierry Bardini and August T. Horvath. "The Social Construction of the Personal Computer User," *Journal of Communication*, V. 45, n. 3, Summer 1995, pgs 40-65.

### **Week 11 (11/14): Technological Revolution**

Eden Medina, *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile*. (Cambridge, MA: MIT Press), 2014.

### **Week 12 (11/21): NO CLASS - THANKSGIVING**

### **Week 13 (11/28): Technology and Globalization**

Dinesh C. Sharma, *The Outsourcer: The Story of India's IT Revolution*. (Cambridge, MA: MIT Press), 2015.

*Optional*: Erik van der Vleuten, "Toward a Transnational History of Technology: Meanings, Promises, Pitfalls," *Technology and Culture*, Vol. 49, No. 4 (Oct., 2008), pp. 974-994.

### **Week 14 (12/5): Wrap-up**

Bruno Latour. "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts," in Wiebe E. Bijker and John Law, eds. *Shaping Technology / Building Society*. (MIT Press) 1992, pgs 225-258.

Thomas Misa. "How Machines Make History, and How Historians (and Others) Help Them to Do So." *Science, Technology, and Human Values* 13 (Summer/Autumn 1988): 308-331.

Steve Woolgar and Geoff Cooper. "Do Artefacts Have Ambivalence?" *Social Studies of Science*, Vol. 29, No. 3 (Jun., 1999), pp. 433-449.

**Week 15 (12/12): NO CLASS**