

Syllabus
Introduction to Science and Technology Studies
ANTH 455 - Spring 2008

Mondays 2-5, Sewall Hall 560
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office hours: Tuesday 10-12 or by appointment

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Science and technology studies (STS) is an interdisciplinary field that draws from anthropology, sociology, history, cultural studies and more to investigate the mutual permeation of technoscience and society. The focus of this course will be on illustrating some of the key questions of STS through analysis of particular concrete examples of scientific practices and objects.

This course has three units. The first unit introduces key concepts in STS, and has two ethnographies as central texts: one on brain imaging and the other on nuclear weapons science. Topics in this unit include the experimental method, objectivity, and subjectivity.

The second and third units are arranged topically around particular objects. We will introduce cyborg theory, and then look at three categories of boundary-blurring technoscientific organisms – transgenic, unborn, and undead. We will attend to the wide range of questions that can be addressed around four categories of technological objects – pharmaceuticals, bombs, computers, and home appliances. The final class will be devoted to student presentations.

Requirements of the course:

Attendance and Class Participation (25%): Students are expected to come to class having done the reading and to be ready to engage in discussion.

Weekly Assignments (50%): Early in the semester each student will choose one technoscientific practice, object, or organism to analyze for the semester. Some initial more structured assignments will help open the topics and objects, with less structured assignments for the rest of the semester. Each week, students will write a concise (roughly 500 word) response paper using the readings to reflect on their particular object. These are to be submitted 24 hours before class (Sunday at 2pm). The response paper might consider ways that the object is topically related to the readings, but more often should engage more creatively—for example, by imagining how one or more of the authors might analyze the object, or suggesting aspects of the object that the approach in question might miss. Connections can be creative and tangential, but should demonstrate comprehension of the reading. There are no extensions on response papers, but each student may skip one over the course of the semester without penalty.

Final Presentation (25%): The final day of class will have all students presenting a cumulative analysis of their object or practice. Emphasis is on analysis rather than outside research. There is no final paper or exam.

Required books, available at the bookstore and on reserve in the library:

Dumit, Joseph, *Picturing Personhood: PET Scans and Biomedical Identity*, Princeton University Press, 2003.

Gusterson, Hugh, *Nuclear Rites: A Weapons Laboratory at the End of the Cold War*, University of California Press, 1996.

Haraway, Donna, *Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse*, Routledge, 1997.

All other readings are available on Owlspace.

Week # Date	Topic	Readings
Wk 1 Jan 7	Intro to the Course	No Readings
UNIT ONE: INTRODUCING STS		
Wk 2 Jan 14	Anthropological Approaches	Dumit, Joseph, <i>Picturing Personhood</i> Chapters 1-2, (“Introduction,” “Metaphors, Histories, and Visions of PET”), pp. 1-49. Gusterson, Hugh, <i>Nuclear Rites</i> Chapters 1-2 (“Introduction” and “Beginnings”), pp. 1-37. Latour, Bruno, Introduction to <i>Science in Action: How to Follow Scientists and Engineers Through Society</i> , Open University Press, 1987, pp. 1-17.
Jan 21	<i>MLK Day – No Class</i>	No readings, but mapping assignment is due Sunday 1/20
Wk 3 Jan 28	Experiment	Shapin, Steven and Simon Schaffer, “Seeing and Believing,” in <i>The Leviathan and the Air Pump: Hobbes, Boyle, and the Experimental Life</i> , Princeton U Press, 1989, pp. 24-79. Haraway, <i>Modest Witness</i> excerpt from Chapter 1 (“Modest_Witness@Second_Millennium”), pp. 23-48. Dumit, <i>Picturing Personhood</i> Chapter 3 (“Producing Brain Images of Mind”), pp. 53-105. Gusterson, <i>Nuclear Rites</i> Chapter 6 (“Testing, Testing, Testing”), pp. 131-164.

<p>Wk 4 Feb 4</p>	<p>Objectivity</p>	<p>Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," <i>Feminist Studies</i>, Vol. 14 No. 3 (Autumn 1988), pp. 575-599.</p> <p>Daston and Gallison, "The Image of Objectivity," <i>Representations</i>, No. 40 (Autumn, 1992), pp. 81-128.</p> <p>Keller, Evelyn Fox, "Gender and Science," in <i>Reflections on Gender and Science</i>, Yale U Press 1985, pp. 75-94.</p> <p>Dumit <i>Picturing Personhood</i> Chapter 4 ("Ways of Seeing Brains as Expert Images"), 110-133.</p>
<p>Wk 5 Feb 11</p>	<p>Subjectivity</p>	<p>Traweek: "Pilgrim's Progress: Male Tales Told in a Life of Physics," Chapter 3 in <i>Beamtimes and Lifetimes: The World of High Energy Physicists</i>, Cambridge: Harvard University Press, pp. 74-105.</p> <p>Gusterson <i>Nuclear Rites</i> Chapters 3-4 ("Becoming a Weapons Scientist" and "Secrecy"), pp. 38-100.</p> <p>Dumit, <i>Picturing Personhood</i> Chapters 5-6 ("Traveling Images, Popularizing Brains" and "Conclusion: Here is a PET image of a Person that Shows Depression"), pp. 140-185.</p>
<p>UNIT TWO: TECHNOSCIENTIFIC ORGANISMS</p>		
<p>Wk 6 Feb 18</p>	<p>Cyborgs</p>	<p>Haraway: "Cyborg Manifesto," in <i>Simians, Cyborgs and Women: The Reinvention of Nature</i>, Routledge 1991, pp. 147-181.</p> <p>Gusterson <i>Nuclear Rites</i> Chapter 5 ("Bodies and Machines"), pp. 101-130.</p> <p>Downey, Dumit, and Williams, "Cyborg Anthropology," <i>Cultural Anthropology</i> 10: 2 (1995): pp. 264-269.</p>
<p>Wk 7 Feb 28</p>	<p>Transgenic Organisms</p>	<p>Haraway <i>Modest Witness</i> Chapter 2 ("FemaleMan©_Meets_Oncomouse™: Mice into Wormholes" pp. 49-118)</p> <p>Heller, Chaia, and Arturo Escobar, "From Pure Genes to GMOs: Transnationalized Gene Landscapes in the Biodiversity and Transgenic Food Networks," in <i>Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide</i>, Berkley: U of California, 2003, pp. 155-175.</p> <p>Seabrook, John, "Tremors in the Hothouse: Genetically Altered Tomatoes," <i>The New Yorker</i>, July 19, 1993.</p>
<p>Mar 3</p>	<p><i>Break – No Class</i></p>	

Wk 8 Mar 10	Unborn	<p>Haraway <i>Modest Witness</i>, Chapter 5 (“Fetus: Virtual Speculum and the New World Order,”) pp. 173-212.</p> <p>Franklin, Sarah, “Embryonic Economies: The Double Reproductive Value of Stem Cells,” <i>BioSocieties</i>, Vol. 1 (2006), 71-90.</p> <p>Rapp, Rayna. <i>Testing Women, Testing the Fetus: The Social Impact of Amniocentesis in America</i>. New York: Routledge, 2000. Chapters 1-2.</p>
Wk 9 Mar 17	Undead	<p>Haraway <i>Modest Witness</i>, Chapter 6 (“Race: Universal Donors in Vampire Culture,”) pp. 173-212.</p> <p>Lock, Margaret. “Living Cadavers and the Calculation of Death,” <i>Body & Society</i> Vol 10 (2004): 135-152.</p> <p>Landecker, Hannah. “Immortality, In Vitro: A History of the HeLa Cell Line,” in <i>Biotechnology and Culture: Bodies, Anxieties, Ethics</i>, edited by Paul Brodwin, Theories of Contemporary Culture series. Indiana University Press, 2000, pp. 53-72.</p>
UNIT THREE: TECHNOSCIENTIFIC OBJECTS		
Wk 10 Mar 24	Drugs	<p>Van der Geest et. al., “The Anthropology of Pharmaceuticals,” <i>Annual Review of Anthropology</i>, Vol. 25 (1996): 153-178.</p> <p>Greenslit, Nathan. “Depression and Consumption: Psychopharmaceuticals, Branding, and New Identity Practices,” <i>Culture, Medicine and Psychiatry</i> 29 (2005): 477–501.</p> <p>Persson, Asha, “Incorporating Pharmakon: HIV, medicine and body shape change,” <i>Body and Society</i> 10 (2004): 45-67.</p> <p>Wight, Gail. “Blue Cheer,” in in <i>Evocative Objects: Things We Think With</i>. Edited by Sherry Turkle. Cambridge: MIT Press, 2007, pp. 92-101.</p>
Wk 11 Mar 31	Bombs	<p>Keller, Evelyn Fox. “From Secrets of Life to Secrets of Death,” in <i>Secrets of Life, Secrets of Death: Essays on Language, Gender and Science</i>. New York: Routledge, 1992, pp. 39-55.</p> <p>Gusterson, <i>Nuclear Rites</i>, Chapters 8-9 (“A Different Reality” and “Conclusion”), pp. 191-231.</p> <p>Roy, Arundhati, “War Talk: Summer Games with Nuclear Bombs,” in <i>War Talk</i>, South End Press, 2003, pp. 1-8.</p>

<p>Wk 12 Apr 7</p>	<p>Computers</p>	<p>Turkle, Sherry. "Wither Psychoanalysis in Computer Culture?" <i>Psychoanalytic Psychology</i>, 2004, Vol. 21 No. 1, 16-30</p> <p>Helmreich, Stefan. "Flexible Infections: Computer Viruses, Human Bodies, Nation-States, Evolutionary Capitalism," <i>Science, Technology and Human Values</i> Vol. 25, No. 4 (Autumn 2000): 472-491.</p> <p>Newitz, Annalee. "My Laptop," in <i>Evocative Objects: Things We Think With</i>. Edited by Sherry Turkle. Cambridge: MIT Press, 2007, pp. 86-91.</p>
<p>Wk 13 Apr 14</p>	<p>Home Appliances</p>	<p>Cowan, Ruth Schwartz. "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the 20th Century," <i>Technology and Culture</i>, Vol. 17, No. 1 (Jan. 1976), pp. 1-23.</p> <p>Bix, Amy Sue, "Equipped for Life: Gendered Technical Training and Consumerism in Home Economics, 1920-1980," <i>Technology and Culture</i>, 43.4 (2002), 728-754.</p> <p>Greenslit, Nathan. "The Vacuum Cleaner," in <i>Evocative Objects: Things We Think With</i>. Edited by Sherry Turkle. Cambridge: MIT Press, 2007, pp. 136-143</p>
<p>Wk 14 Apr 21</p>	<p>Wrap up and Presentations</p>	