

Intro to STaC Syllabus Fall 2009

LCC 2100- Introduction to Science, Technology and Culture

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Office Hours: Skiles 360, Wednesday 3-5 or by appointment

This syllabus is preliminary and subject to change. The most current version will always be posted on the T-Square site.

Science and technology are an integral part of contemporary societies. At the same time, culture, politics, and economics are built into contemporary science and technology. This course draws on anthropology, history, philosophy, media studies, and literature to interrogate the mutual permeation of science and culture. The goal is to introduce students to analysis of science and technology from a social and cultural standpoint, crossing some of the assumed and traditional boundaries between scientists, humanists and social scientists. Focusing on concrete objects ranging from brain scans and amniocentesis to nuclear weapons and computer viruses, this course will provide a foundation for further study in STAC, as well as analytical tools for students from all majors interested in investigating science and technology in/and culture.

This course has three units. The first unit introduces key concepts in the cultural study of science and technology, 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. We will introduce cyborg theory, and then look at boundary-blurring technoscientific organisms at each side of human life – unborn and undead. Finally, we will attend to the wide range of questions that can be addressed around four categories of technoscientific objects – pharmaceuticals, bombs, computers, and home appliances.

Requirements of the course:

Early in the semester each student will choose one technoscientific practice, object, or organism to analyze for the semester. The topic should be chosen provisionally by the September 4 in-class essay. Three further assignments—an annotated bibliography, a mapping of the object, and a reading of a promotional image—will help build toward the student's choice of a final project in a genre of the student's choosing (traditional scholarly paper, fiction, web site, film, etc.). In whatever format, the final project should demonstrate mastery of the concepts discussed in class, properly cited references to class texts and outside research, close and creative analysis of the object in question, and lucid arrangement of ideas.

Assessment:

- Attendance and Class Participation: 20% Come to class regularly, having done the reading and with those readings in hand, ready to participate in class discussion. If you must miss class no matter the reason, contact me to make arrangements for making up what you missed. Peer review of final paper drafts is an essential part of participation.
- In-class essay: 15%
- Annotated Bibliography of Scholarly Sources on Object: 15%
- Object Mapping: 20%
- Reading Promotional Image: 5%
- Final Paper/Project: 25%

All assignments are due on the date and time specified on the assignment. Late assignments will be penalized by 10% per day. Refer to university policies on accommodation of students with disabilities, as well as guidelines on academic integrity.

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.

Recommended book, available at the bookstore and on reserve in the library:

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

All other readings are available on T-Square.

	Monday	Wednesday	Friday
UNIT ONE: KEY CONCEPTS IN SCIENCE AND TECHNOLOGY STUDIES			
Week 1 Aug 17	Intro to Course	Approaching Science Latour, Bruno, <i>Introduction to Science in Action: How to Follow Scientists and Engineers Through Society</i> , Open University Press, 1987, pp. 1-17.	Cultural Approaches Gusterson, Hugh, <i>Nuclear Rites</i> Chapters 1-2 (“Introduction” and “Beginnings”), pp. 1-37.

<p>Week 2 Aug 24</p>	<p>Cultural Approaches</p> <p>Dumit, Joseph, <i>Picturing Personhood</i> Chapters 1-2, (“Introduction,” “Metaphors, Histories, and Visions of PET”), pp. 1-49.</p>	<p>Object Discussion Day</p> <p>Come to class ready to discuss objects of technoscience that might make interesting projects.</p>	<p>Ethnography of Experiment</p> <p>Gusterson, <i>Nuclear Rites</i> Chapter 6 (“Testing, Testing, Testing”), pp. 131-164.</p> <p>Dumit, <i>Picturing Personhood</i> Chapter 3 (“Producing Brain Images of Mind”), pp. 53-105.</p>
<p>Week 3 Aug 31</p>	<p>Experiment</p> <p>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.</p>	<p>Experiment</p> <p>Haraway, <i>Modest Witness</i> excerpt from Chapter 1 (“Modest_Witness@Second_Millennium”), pp. 23-48.</p>	<p>In-Class Essay</p> <p><i>No Readings</i></p>
<p>Week 4 Sept 7</p>	<p>NO CLASS</p> <p>LABOR DAY</p>	<p>Objectivity</p> <p>In Class Film: <i>Gender and Science</i></p> <p><i>No Readings</i></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>Week 5 Sept 14</p>	<p>Objectivity</p> <p>Daston and Gallison, “The Image of Objectivity,” <i>Representations</i>, No. 40 (Autumn, 1992), pp. 81-128.</p> <p>Dumit <i>Picturing Personhood</i> Chapter 4 (“Ways of Seeing Brains as Expert Images”), 110-133.</p>	<p>Library Field Trip</p> <p>Meet at Homer Rice Center</p> <p><i>No Readings</i></p> <p>No office hours held today – available by appointment Tues 9/15</p>	<p>NO CLASS</p> <p>Research Day to work on Annotated Bibliography</p>

<p>Week 6 Sept 21</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>Subjectivity</p> <p>Gusterson <i>Nuclear Rites</i> Chapters 3-4 (“Becoming a Weapons Scientist” and “Secrecy”), pp. 38-100.</p>	<p>Subjectivity</p> <p>In-class film: DNA: The Secret of Photo 51</p> <p><i>No Readings</i></p> <p>Annotated Bibliography Assignment Due on T-Square By Noon</p>
<p>UNIT 2: TECHNOSCIENTIFIC BOUNDARIES OF LIFE</p>			
<p>Week 7 Sept 28</p>	<p>Subjectivity Wrap-Up</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>Intro to Cyborgs</p> <p>Haraway: “Cyborg Manifesto,” in <i>Simians, Cyborgs and Women: The Reinvention of Nature</i>, Routledge 1991, pp. 147-181.</p>	<p>Object Mapping</p> <p><i>No Readings</i></p> <p>In-class film: “Island of Flowers,” Directed by Jorge Furtado (1989)</p>
<p>Week 8 Oct 5</p>	<p>NO CLASS FALL BREAK</p>	<p>Cyborgs</p> <p>Gusterson <i>Nuclear Rites</i> Chapter 5 (“Bodies and Machines”), pp. 101-130.</p>	<p>Cyborgs wrap-up</p> <p>Some time for group work on object-mapping</p>
<p>Week 9 Oct 12</p>	<p>Unborn</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>	<p>Unborn</p> <p>Waldby, Catherine and Salter, Brian (2008) "Global Governance in Human Embryonic Stem Cell Science: Standardisation and Bioethics in Research and Patenting," <i>Studies in Ethics, Law, and Technology</i>: Vol. 2 : Iss. 1, Article 12.</p>	<p>Unborn</p> <p>In-class film: Excerpts from “Underexposed”</p> <p><i>No readings</i></p> <p>Object Mapping Due on T-Square by Midnight</p>

<p>Week 10 Oct 19</p>	<p>Unborn/Undead</p> <p>Cooper, Melinda, "Resuscitations: Stem Cells and the Crisis of Old Age," <i>Body & Society</i>, Vol. 12, No. 1, 1-23 (2006).</p>	<p>Undead</p> <p>Haraway <i>Modest Witness</i>, Chapter 6 ("Race: Universal Donors in Vampire Culture,") pp. 173-212.</p>	<p>Undead</p> <p>Lock, Margaret. "Living Cadavers and the Calculation of Death," <i>Body & Society</i> Vol 10 (2004): 135-152.</p>
<p>UNIT 3: TECHNOSCIENTIFIC OBJECTS</p>			
<p>Week 11 Oct 26</p>	<p>Drugs</p> <p>Van der Geest et. al., "The Anthropology of Pharmaceuticals," <i>Annual Review of Anthropology</i>, Vol. 25 (1996): 153-178.</p>	<p>Drugs</p> <p>Greenslit, Nathan. "Pharmaceutical Branding: Identity, Individuality, and Illness," <i>Molecular Interventions</i> Vol 2 Iss 6 (October 2002): 342-345.</p> <p>Dumit, Joseph. "Drugs for Life," <i>Molecular Interventions</i> Vol 2 Iss 3 (June 2002): 124-127.</p>	<p>CLASS CANCELED</p> <p>[4S]</p> <p>Reading Promotional Image Assignment Due on T-Square by Midnight</p>
<p>Week 12 Nov 2</p>	<p>Drugs</p> <p>Persson, Asha, "Incorporating Pharmakon: HIV, medicine and body shape change," <i>Body and Society</i> 10 (2004): 45-67.</p>	<p>Bombs</p> <p>Cohn, Carol. "Sex and Death in the Rational World of Defense Intellectuals," <i>Signs</i>, Vol. 12, No. 4 (Summer 1987), pp. 687-718.</p> <p>Recommended: Gusterson, <i>Nuclear Rites</i>, Chapters 8-9 ("A Different Reality" and "Conclusion"), pp. 191-231.</p>	<p>Bombs</p> <p>Gusterson, Hugh. "Nuclear Weapons and the Other in the Western Imagination," <i>Cultural Anthropology</i>, Vol. 14, No. 1 (Feb 1999), pp. 111-143.</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>In Class Film: Excerpts from <i>Atomic Café</i></p>

<p>Week 13 Nov 9</p>	<p>Computers</p> <p>Schaffer, Simon. "Babbage's Intelligence: Calculating Engines and the Factory System," <i>Critical Inquiry</i> 21 (Autumn 1994): pp. 203-227.</p> <p>In class film: excerpts from <i>Conceiving Ada</i></p>	<p>Computers</p> <p>Turkle, Sherry. "Whither Psychoanalysis in Computer Culture?" <i>Psychoanalytic Psychology</i>, 2004, Vol. 21 No. 1, 16-30</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>Computers</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>Recommended: Chan, Anita. "Coding Free Software, Coding Free States: Free Software Legislation and the Politics of Code in Peru." <i>Anthropological Quarterly</i> 77 no. 3 (2003): 531-545.</p>
<p>Week 14 Nov 16</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>Home Appliances</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>Concept Paper/Project Due</p> <p>Small Group Work</p>
<p>Week 15 Nov 23</p>	<p>Catch-up Day</p> <p>Ask questions for final projects</p>	<p>CLASS CANCELED</p> <p>Office hours available Tuesday 11/23</p>	<p>NO CLASS THANKSGIVING</p>
<p>Week 16 Nov 30</p>	<p>Full Draft Paper/Project Due – Peer Critique</p>	<p>Full Draft Paper/Project Due – Peer Critique</p>	<p>Course Wrap-Up</p> <p>Final Project Due on T-Square by Midnight</p>