

# Introduction to Science and Technology Studies

**Diana West**

**Fall 2015**

**Wednesdays, 17:30-20:40, Auditorium 358 (no. 6)**

Office hours: Tuesdays 14:00-17:00 (In STS office) or by appointment

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Science and Technology Studies (STS) is a field with a foothold in a variety of disciplines and methodologies centered on the issues of technology, science, and the social and technological nexus of humans and objects. This seminar will offer an overview of seminal texts in the field of STS, introducing students to a sampling of current topics and methods. The course is taught in English but the students have the option of submitting the written assignments in Russian unless otherwise specified.

## Assignments and Grading

Attendance and Participation: 10%

Weekly questions/response papers: 15%

Assignment #1 Conference attendance/analysis paper: 5%

Assignment #2 Collaborative research project: 30%

Assignment #3 Final essay: 40%

Attendance and Participation: attendance is required, participation will receive a daily grade. If you cannot attend a class, please discuss it and any make-up work with me in advance.

Weekly questions/response papers: the students will submit weekly responses and questions to the reading materials for that week, due by 12 PM (NOON) on the day of the class. The questions and response papers can be loosely structured and are designed to highlight key topics you would like discussed in class. (approximately 200 words)

### Assignment #1 Conference attendance/analysis paper

Students will be required to attend the URBAN STS conference, taking place at the European University at St. Petersburg on September 18-19<sup>th</sup>. One full day of attendance is required, two encouraged. The students will then submit a written report and analysis of what they perceived to be important issues in two papers of their choice. (3-4 pages, or about 800-1000 words)

### Assignment #2 Group research project

Working in groups, students will engage in fieldwork related to STS. More details on the project will be made available separately.

### Assignment #3 Final essay:

Students will research a topic of interest to them in the course. Paper topics **MUST** be discussed with me and receive my approval by December 1<sup>st</sup>. (10-15 pages, or 4000-5000 words)

**Week 1. Introduction (September 2)**

Course overview. In-class reading, discussion.

**Week 2. Challenging Science (September 9)**

Kuhn, Thomas, *The Structure of Scientific Revolutions*, 1962, pp. TBA

**Week 3. Sociology of Scientific Knowledge (SSK) (September 16)**

Bloor, David. 1976. The Strong Programme in the sociology of knowledge. In *Knowledge and Social Imagery*, 2nd ed. Chicago: University of Chicago Press, 1991. pp. 3-23.

Collins, Harry M. 1985. *Changing Order: Replication and Induction in Scientific Practice*. London: Sage. Chapters 1-3.

**URBAN STS Conference, EUSPb, September 18-19, attendance of at least one full day mandatory for course students**

*\*Assignment #1 due in class on September 23rd*

**Week 4. SSK, cont. (September 23)**

Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle and the Experimental Life* (1985), pp. TBA

**Week 5. Scientific Practice (September 30)**

Knorr-Cetina, Karin. 1995. "Laboratory studies: The cultural approach to the study of science," In *Handbook of Science & Technology Studies*, ed. S. Jasanoff, D.E. Markle, J.C. Peterson, and T.J. Pinch. London: Sage. pp. 165-180.

Andrew Pickering, "From Science as Knowledge to Science as Practice," in Pickering, ed., *Science as Practice and Culture*, pp. 1-23.

**Week 6. Actor-Network Theory (ANT) (October 7)**

Latour, Bruno, *Science in Action* (1987), Introduction and chaps. 2, 4, 6.

**Week 7. ANT (October 14)**

Latour, "Postmodern? No, Simply Amodern!" *Studies in History and Philosophy of Science* 21 (1990), pp. 145-171.

Law, John, "On the methods of long-distance control: Vessels, navigation and the Portuguese route to India," In *Power, Action and Belief*, 1986, pp. 234-263.

### **Week 8. Staging a Debate (October 21)**

Collins, H.M. and Steve Yearley, "Epistemological chicken," In *Science as Practice and Culture*, ed. A. Pickering. Chicago: University of Chicago Press, 1992, pp. 301-326.

Latour, Bruno, and Michel Callon, "Don't throw the baby out with the Bath School! A reply to Collins and Yearly," In *Science as Practice and Culture*, 1992, pp. 343-368.

### **Week 9. Social Construction of Technology (SCOTs) (October 28)**

Woolgar, Steve, "The turn to technology in Social Studies of Science," *Science, Technology & Human Values* 16, 1991, pp. 20-50.

Akrich, Madeleine, "The de-scription of technical objects," In *Shaping Technology / Building Society*, ed. W. Bijker and J. Law. Cambridge: MIT Press, 1992, pp. 205-224.

MacKenzie, Donald, "Nuclear Missile Testing and the Social Construction of Accuracy," (abridged from 1990), in Biagioli, *Science Studies Reader*, pp. 342- 357.

### **Week 10. (HOLIDAY, no class)**

### **Week 11. Medicine Reconsidered (November 11)**

AnneMarie Mol, *The Body Multiple: Ontology in Medical Practice*, 2002, pp. TBA

### **Week 12. Group research, no class meeting. (November 18)**

*\*Assignment #2: Group research projects due November 21<sup>st</sup> at 5 PM*

### **Week 13. Gender and the Body (November 25)**

Evelyn Fox Keller, "The Gender/Science System: Or, Is Sex to Gender as Nature is to Science?" (1987), in Mario Biagioli (ed.), *The Science Studies Reader*, (1999), pp. 234-242.

Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," in Haraway, *Simians, Cyborgs, and Women* (1991), pp. 183-203.

Franklin, Sarah, "Sex," in *Dolly Mixtures: The Remaking of Genealogy*. Durham: Duke

University Press, 2007, pp. 19-45.

**Week 13. Technoscience (December 2)**

Jasanoff, Sheila, "Biotechnology and Empire: The Global Power of Seeds and Science," *Osiris* n.s. 21, 2006, pp. 273-292

Anderson, Warwick, and Vincanne Adams, "Pramoedya's chickens: Postcolonial studies of technoscience," In *The Handbook of Science and Technology Studies*, 3rd ed., ed. E.J. Hackett, O. Amsterdamska, M. Lynch, and J. Wajcman. Cambridge: MIT Press. 2008, pp. 181-204.

**Week 14. Ontology of Science Studies (December 9)**

Stengers, Isabelle, *Cosmopolitics*, 2013 pp. TBD

**Week 15. Final Discussion: The Expanded Field of STS (December 16)**

Readings to be announced.

***\*Assignment #3 Final essays due December 21<sup>st</sup> at 10 AM.***