Science, Technology, and Medicine in Society
Science and Technology Studies 901 (core seminar) - Fall 2006
Thursdays 3:30-6:00 / 6121 Social Science Bldg.

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Course Description
As the core graduate seminar in the Science and Technology Studies program, this course will focus on exposing students to major theoretical developments and trends in the interdisciplinary field variously known as science studies; the social studies of science; science and technology studies; science, technology, and society; or simply STS. We will reflect upon and challenge the ideas of some of the foundational scholars (e.g., Kuhn, Fleck, Merton, Polanyi), interrogate various branches of scholarship that developed as the field matured (e.g., laboratory ethnographies, sociology of scientific knowledge, actor-network theory, controversy studies), as well as explore emerging directions in the field (e.g., feminist approaches in STS, STS and race, new political sociology of science). The core commitment to interdisciplinarity in STS, however, prevents the establishment of a clear ‘canon’ of work that must be read by every serious scholar. This course thus cannot hope to be comprehensive, but the syllabus provides an opportunity for both deep and broad understanding that will support further investigation and reading.

The course has four goals:

1. Introduce students to key conceptual and theoretical developments in the field of STS from the mid-20th century to the early 2000s.

2. Develop students’ analytical skills to compare, contrast, and apply theoretical approaches in STS.

3. Challenge students to self-reflect on their own assumptions about the relationships among knowledge, science, technology, politics, and publics.

4. Facilitate the creation of collective, personal, and tangible resources for students to incorporate STS into future research projects, writing assignments, and teaching opportunities.

The course will be taught in the spirit of a pro-seminar – we are learning together. The time each week in discussion represents the only meaningful difference between taking the course and simply using the syllabus as a private reading list. Preparation for class (reading, thinking, and writing) is essential to each participant’s intellectual development, as well as to the experience of the group.
Requirements and Evaluation

1. Class participation (20%). Show up prepared for class, engage in discussion, ask questions, dare to be wrong, listen to your colleagues, and share your ideas respectfully.

2. Presentation and discussion facilitation (20%). Except for sessions that involve a guest speaker, students will take turns presenting the readings and facilitating class discussion. Responsibilities include:
   a. Presenting a brief analysis (~15 min) to the class about the week’s readings, offering an overview of the main ideas and some perspective on how the selections fit into what we have covered thus far in the course. Although not mandatory, presenters may wish to read beyond the required readings in the syllabus. This could enrich the presentation, but should not become the focus. Handouts, visuals, and other creative ideas are welcome.
   b. Developing a plan for discussion. This could include breaking up into smaller groups, generating a list of questions to pose to the class, incorporating issues and questions raised by other students’ analytic reading memos (see below), and attending to the scope of the readings.
   c. Consulting with the instructor about the presentation and plan for discussion (during office hours or another scheduled time prior to class).
   d. Providing annotated bibliographic entries (in EndNote or another agreed-upon electronic format) to the student listserve within one week of the class meeting. Entries should include an abstract (un/official) and no more than one page (~250 words) of notes. Notes should address the author’s primary claims; what arguments/literatures the author engages explicitly or implicitly; key vocabulary; and some analysis or critique. Think utility, not eloquence. Although the notes may be drafted ahead of the class meeting, they should be revised according to ideas or critiques that arise in class discussion. The instructor will provide an EndNote file to all students at the beginning of the course with all citation information already included. [For weeks without student presenters, class participants may wish to fill out this bibliography on their own in order to have a comprehensive resource at the end of the course.]

3. Collaborative Critical Analysis (25%). Select a recently published article in Science, Technology, and Human Values (STHV) or Social Studies of Science (SSS) not already included in the syllabus. Write a critical analysis (5-7 pages) using at least two sources from required readings on the syllabus and at least one other source. Assignment due no later than November 27, 3PM. Choose one option:
   a. Conduct this assignment with a partner. Along with your final paper, submit separate 1-2 page reflections on your experience of working collaboratively.
   b. Exchange drafts of this assignment with a partner no later than November 9. Each of you writes a critical and constructive review (2-3 pages) of the other person’s draft (in addition to any marks/comments on a hard copy), due back to the author no later than November 16. Along with your final paper, please submit a hard copy of your peer-reviewed draft (with or without comments) and a copy of the peer-review that you received.
4. Choose ONE of the following (35%):
   
   a. Analytic reading memos (~2 pages) for each of seven weeks of the semester (you choose the weeks). Email your memo to the instructor AND to the weekly presenters/facilitators by **Wednesday noon** prior to the class meeting at which the readings will be discussed. Submissions should be grounded in the week’s reading material, pose 3-5 questions for discussion, and provide analysis (not summaries) that cuts across readings. Each memo will be evaluated on a 5 point scale. You may submit more than seven memos, in which case your seven best memos will determine your grade. Late submissions will receive no credit.
   
   b. Literature review (12-15 pages) for a potential or actual research project/proposal that incorporates STS as a major theoretical framework. Submit an initial proposal (2-3 pages) by **October 5**. Final paper due by **December 15, 5PM**.
   
   c. Term paper (12-15 pages). Choose a current issue or controversy and apply 2-3 frameworks from the syllabus. Analyze, compare, contrast, and make an argument for how STS creates needed insight for policymakers, scientists, the public, industry, and/or universities. Submit an initial proposal (2-3 pages) by **October 5**. Final paper due by **December 15, 5PM**.

All written assignments should be formatted with 1 inch margins, 12pt font (Times New Roman, if possible), and double-spaced. Citations for readings from the syllabus should simply indicate author, date, and page number if relevant [e.g., (Forsythe 2001: 140)]. Citations for other readings should follow the same format within the text, and also appear in a reference section at the end of the paper.

Extensions for assignments require the permission of the instructor no less than 48 hours prior to when the assignment is due (except in absolutely horrific circumstances). Otherwise, half-grade penalties will accrue every 24 hours for late assignments (e.g., an “A” becomes an “AB” if it is two hours late, and becomes a “B” if it is twenty-four hours late). Under no circumstances will the instructor accept assignments after 5 PM on December 20 – any outstanding work will negatively affect the course grade or result in an “Incomplete.”

**Readings**

Please note that the syllabus includes required and recommended readings. The recommended readings are listed as a resource for students preparing presentations, writing papers, or doing further reading after this semester. It is by no means expected that ‘good’ students will complete the recommended readings to prepare for class.

Books are available for purchase at the Rainbow Bookstore Cooperative (426 West Gilman Street, 257-6050) and on 3-hour reserve at the College Library (in Helen C. White Hall).


* For Week 2, half of the class will read Kuhn while the other reads Fleck. Both books are worth owning, but you may choose to wait to purchase one until finding out your assignment in class during Week 1.

All other required readings are available through electronic reserve, which is accessible through the MyUW website (http://my.wisc.edu/portal/) to all students enrolled in the course (click on “Academic” tab). Students who prefer a traditional course reader should approach the instructor at (or preferably before) the first class meeting.

**Schedule**

**Week 1**

9/7 Launching Points


☐ Winner, Langdon (1986). Technologies as Forms of Life (Ch. 1) & Do Artifacts Have Politics? (Ch.2). *The Whale and the Reactor: A Search for Limits in an Age of High Technology.* Chicago, University of Chicago Press. (pages 3-39)

☐ Hess (1997). *Science Studies.* Chapters 1-3 (80 pages)

☐ Browse website of UW Madison’s Robert F. and Jean E. Holtz Center for Science and Technology Studies (http://www.sts.wisc.edu/index.html).

**RECOMMENDED**

- Browse website of the Society for Social Studies of Science (4S) (http://4sonline.org/).
- Sismondo, Sergio (2004). *An Introduction to Science and Technology Studies.* Malden, MA, Blackwell Publishing Ltd. [good overview of the field]
Week 2
9/12 Steve Shapin meeting with graduate students on Tuesday, 4:00-5:30pm
9/13 Steve Shapin lecture on Wednesday, 12:00-1:30pm

Although attending these events is not mandatory, it is strongly encouraged. Please read the following in order to familiarize yourself with a bit of Shapin’s classic work.


9/14 Science as a Social Process
OR

Half of the class will read Kuhn while the other reads Fleck. Assignments and arrangements for presentations will be made during Week 1.

Week 3
9/21 Sociology of Scientific Knowledge (SSK)

RECOMMENDED

Week 4
9/28 Laboratory Studies


RECOMMENDED

Week 5
10/5  Deadline for submitting initial proposals for term paper or literature review option

10/5  Science in Action

RECOMMENDED

Week 6
10/12  Actor-Network Theory (ANT) & Social Worlds


**RECOMMENDED**


**Week 7**

10/19 **Visual Cultures**

**Guest Speakers:**

- Gregg Mitman (History of Science)
- Hannah Landecker (Anthropology, Rice University)


**RECOMMENDED**

Week 8
11/16 Gender & STS

RECOMMENDED

Week 9
11/2 No class meeting
Instructor and other STS faculty will be attending the annual meetings of the Society for Social Studies of Science (4S). Readings on Controversy Studies (I & II) will be discussed during Week 10.

Controversy Studies I

Week 10
11/9 Deadline for exchanging drafts of Collaborative Critical Analyses for peer review
11/9  Controversy Studies II


RECOMMENDED


Week 11
11/16  Deadline for returning peer-reviewed drafts of Collaborative Critical Analyses

11/16  Studies of Race in Science

**Guest Speaker: Joan Fujimura (Sociology)**


Duster, Troy (forthcoming) “Molecular Medicalization of Race.” *Lancet.* [draft provided by Professor Fujimura].


Thanksgiving Week (no class on November 23)

**Week 12**

11/27, 3PM: Deadline for submitting Collaborative Critical Analysis

**11/30 Social Construction of Technology (SCOT) and Social Informatics**

*Guest Speaker: Kristin Eschenfelder (Library and Information Studies)*


**Week 13**

12/7 **Expertise, Publics, and Governance**


RECOMMENDED


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**Week 14**

12/14  **The New Political Sociology of Science**


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12/15, 5PM  **Deadline for submitting final term paper or literature review option**

12/?? Jason will host a potluck at his house. Please come prepared to talk for five minutes about your term paper, literature review, or critical analysis. This is not a graded exercise, but a chance to share informally with the class.