

Syllabus

Course

SOAN360-2: Science and Society

Time: T/Th. 2:30-3:50

Place: Larson 224

Instructor

Office: AHON 228

e-mail: hamid_ekbia@redlands.edu

Phone: x 3127

Office Hours: W.1:00 – 2:00, T/R. 4:00– 5:00 (or by appointment)

Textbook: *The Science Studies Reader*

Mario Biagioli

Routledge, 1999

Reading Material: The textbook constitutes only one part of the reading for the course. Other reading material will be prepared and distributed in the manner to be discussed in class.

Course Description

This course is a survey of a relatively new discipline that is variably known as “sociology of science” or “science studies.” Simply speaking, science studies is about studying science — that is, its subject matter is science. Rather than asking what science is (as most other disciplines would ask about *their* subject matter), however, it mainly asks *how science works*. And since people give tremendously different answers to this question, interesting debates, controversies, and cultural “wars” arise. Our main goal in this course is to explore some of these answers, and in so doing to attain a better understanding and appreciation of science itself. The image of science that will emerge from this exploration is one of a lively, dynamic, and stimulating pursuit, much different from the dull, dreary, and esoteric picture that we often get from textbooks, media, and, of course, some scientists. The image, in brief, is much more real than otherwise. This is one of the sources of the fascination of science studies for me (as a scientist!), and I hope to be able to convey this to you as well.

To examine the different aspects of science in a structured way, the course is divided into five major topics — namely,

1. Science as Truth
2. Science as Practice
3. Science as Culture
4. Science as Power
5. Science as Technique

Activity

The course involves three major activities:

- *Reading*: Everyone should read the material *before* coming to class ideally three times, but at least twice, first for getting big picture, second for taking note of the ideas in detail, and third for reading critically. You should come to class with (paper or electronic) notes and reflections in hand. The schedule below specifies the reading for each day (if there are three readings listed for a week, you should read the first two for Tuesday and the third one for Thursday).
- *Moderating*: This course will *not* accomplish its goals without the active participation of everyone. In addition to continuous participation, each of you will take the leading role for one or two sessions of your choice, during which you will moderate the discussion and sum them up at the end.
- *Writing*: Writing is a major component of the course (see below), so be prepared for it!
- *Presentation*: Each person will make a 10-15 minute presentation of their final paper to the class; you will be partly evaluated by your peers on the content and quality of your presentation.

Writing and Grading

Writing in this course has four major components:

1. *Daily reflections* (15%): You will take your notes and reflections to class everyday; I will examine them, but won't grade them. Just having notes will give you points — this is *my* gift to you.
2. *Short essays* (40%): You should write four essays (5-7 pages long) during the semester, one at the end of each discussion topic. Given that we have five topics, you will have the option of dropping one topic and writing about the other four topics of your choice. In writing these essays, you should read *at least* two additional readings related to the topic (from the reference list on pages 569–575 of the textbook), and attach a copy of those two readings (if they are papers) to your essays for me to keep. These essays will be *your* gifts to me.
3. *Book review* (15%): You will choose a book related to science studies (from the reference lists of the book or from outside) to read and will write a professional review on it. I will provide guidelines for how to do this as we approach the deadline.
4. *Final paper and presentation* (30%): You will write a comprehensive final paper on the topic of your choice. This is going to be 10–15 pages long, but what matters most is the quality of the paper and time, thought, and effort that you have put in writing it, not its length. Your presentation will be based on this paper as well.

After four years of college, the rest of the story is probably known to you by now:

- I will strictly not accept any late submissions, unless under documented emergency conditions.
- Make sure you read and understand the **the University of Redlands' Standards of Academic Honesty** thoroughly. More importantly, however, use your common sense in making judgments about what is plagiarism and what is not. I like you too much to be able to bear defeated faces at the end of the semester.

Schedule

Period	Topic	Reading	Activities
Week 1: Jan. 09–13	<ul style="list-style-type: none"> • Introduction: “Do you believe in reality?” <i>News from the Trenches of the Science Wars</i> 	Pandora's Hope: Handout	Initial Reflection
<i>Science as Truth</i>			
Week 2: Jan. 16–20	<ul style="list-style-type: none"> • One More Turn after the Social Turn • Was the Last Turn the Right Turn? • Reading Science Studies 	Ch.19 Ch. 20 Ch. 6	
Week 3: Jan.23–27	<ul style="list-style-type: none"> • The Mangle of Practice • Agential Realism • Understanding Scientific Practices 	Ch. 25 Ch. 1 Ch. 30	
Week 4: Jan.30–Feb.3	<ul style="list-style-type: none"> • Artificiality @ Enlightenment • Experimental System 	Ch. 27 Ch. 28	Short Essay 0 (due Feb.2 nd)
<i>Science as Practice</i>			
Week 5: Feb. 6–10	<ul style="list-style-type: none"> • Some Elements of a Sociology of Translation • Give Me a Laboratory • Pictures, Texts, and Objects 	Ch. 5 Ch. 18 Ch. 22	
Week 6: Feb. 13-17	<ul style="list-style-type: none"> • Late Victorian Metrology • The House of Experiments in 17th Century England • Institutional Ecology 	Ch. 31 Ch.32 Ch.33	
Week 7: Feb. 20–24	<ul style="list-style-type: none"> • Science in Antiquity • What Are We Thinking about when We Think Computers 	Ch. 21 Ch. 35	Short Essay 1 (due Feb.23 rd)
Feb. 27– March 03	Spring Break		
<i>Enjoy the spring, read a book, and come back with fresh ideas!</i>			

<i>Science as Culture</i>			
Week 8: March 06–10	<ul style="list-style-type: none"> • The Specificity of the Scientific Field • The TEA Set 	Ch. 3 Ch. 7	Book Review (due March 7 th)
Week 9: March 13–17	<ul style="list-style-type: none"> • Trading Zone • Objectivity and the Escape • Aporias of Scientific Authorship 	Ch. 10 Ch. 8 Ch.2	
Week 10: March 20-24	<ul style="list-style-type: none"> • Moral Economy • Nuclear Missile Testing • Quantification and The Accounting Ideal 	Ch.17 Ch.23 Ch.26	Essay 2 (due 3/23)
<i>Science as Power</i>			
Week 11: March 27-31	<ul style="list-style-type: none"> • Situated Knowledge • The Gender/Science System • Pilgrim's Progress 	Ch. 12 Ch. 16 Ch. 34	
Week 12: April 03–07	<ul style="list-style-type: none"> • The Engendering of Archeology • Toward An Anthropology of Immunology • On The Problem of Chinese Science 	Ch. 36 Ch.24 Ch. 13	Essay 3 (due 04/06)
<i>Science as Technique</i>			
Week 13: April 10–14	<ul style="list-style-type: none"> • Making up People • Styles of Reasoning • In the Beginning Was the Word 	Ch. 11 Ch. 9 Ch. 15	
Week 14: April 17	<ul style="list-style-type: none"> • The Evolution of Large Technological Systems • Muscles and Engines • Thinking Dia-Grams 	Ch. 14 Ch. 4 Ch. 29	Essay 4 (due April 16)
Final's Week			Presentations III Final Paper (due 4/20, 3:00 pm)