History of Science 5970: Research, Criticism, and Analysis
Tuesdays 1:30-4:20, Harlow Room, History of Science Collections

This course is designed to introduce graduate students to the discipline of history of science. Readings, assignments, and discussions will be organized to give students a broad coverage of key subfields in history of science, as well as a sense of the history of the discipline itself and how it connects with broader discipline of history, and the related fields of philosophy and sociology of science. We will also convey very practical advice about the nature of research, methods of doing history, and how to meet expectations of scholars in the field.

Hardware, software, texts: Bring a laptop or equivalent device to class with you. If you have not already done so, please install Adobe Acrobat Reader, a web browser at least as capable as Firefox, and the Microsoft Office suite available to students on the university IT site. Additional suggestions will be made during class. Below, under the weekly assignments you will find a variety of books and articles. You are responsible for obtaining all sources and reading them before the week they appear. Everyone should buy: Y. Douglas, The Reader’s Brain: How Neuroscience Can Make You a Better Writer (Cambridge, 2015), which will be discussed in weeks 5 & 6.
I recommend buying at least some of the other books for future reference. Most articles and chapters will be available to registered students on the class D2L website.

Assignments: There are two major class assignments, described below.Minor assignments may be made ad hoc, on a weekly basis, and may include reporting on a question raised in a previous class or testing a piece of software.
Assignment #1 (before mid-term): Write a 5-6 page essay on a topic agreed with the instructor that addresses the method of history. In your essay consider in particular the nature of historical facts, the working methods of historians, and the stability or durability of the knowledge produced.
As part of the assignment, ask one person in the class to review your essay (week 7). Make changes as suggested (week 8). Turn in the final copy with the reviewer’s marked copy (week 9).
Assignment #2 (before end of semester): Construct a critical, annotated bibliography of a subfield in history of science that interests you. Your bibliography should include both primary and secondary sources, basic works and current scholarship in both article and book form. Prepare a presentation for the last class meeting (week 15) in which you review your chosen area for other historians who are not specialists. Submit the complete bibliography by Monday of exam week.

Students are also strongly encouraged to attend as many Departmental Colloquia and Galileo’s World speaker events as possible.
Week 1 (Aug 25) Organizational meeting
Class activity: Course planning; introduction to the profession; the electronic landscape; finding your way around the literature in our field; finding your way around the library.

Week 2 (Sept 01) General Historiography 1 - What is history?
Class activities:
1:30-2:30, [TBA], training session on pulling books from Collections stacks
2:45-4:20, discussion of:

Week 3 (Sept 08) History and philosophy of science
Class activity: 1:30 -2:30, JoAnn Palmeri, Curator HSC, Finding research sources in history of science

Week 4 (Sept 15) General Historiography 2- History vs. history of science
Class activity: 1:30 -2:30, Steve Weldon, Isis Bibliographer, Understanding and using the Isis Bibliography

Week 5 (Sept 22) Bruno Latour and the sociology of science and technology

Week 6 (Sept 29) The Strong Programme in the Sociology of Science
Reading: Bloor, Intro to *Knowledge and Social Imagery*; extracts from *Leviathan and the Airpump*; Extracts from McGill *Rethinking Objectivity*

Week 7 (Oct 06) Cultural history of science
Class activity: [TBA] Getting the most out of the Galileo exhibit
Reading: Biagioli *Galileo Courtier* parts; Harkness, *Jewel House*, intro.

Week 8 (Oct 13) General Historiography 3 – Periodization and ‘Big Pictures’
Class activity: Examining Collections materials.

**Week 9 (Oct 20)**  Applied History of Science: The climate change debate  
Class activity: Use and abuses of Powerpoint.  
Readings: Naomi Oreskes and Eric M. Conway, Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming (Bloomsbury, 2011) ; Richard A. Muller, Energy for Future Presidents, ch. 3.

**Week 10 (Oct 27)**  
Class activity: The process of journal article publication.  
Visitor: Ronald Schleifer, George Lynn Cross Research Professor, Department of English.

**Week 11 (Nov 03)** History of Medicine  
Class activity: Grant opportunities for graduate students. Presentation and discussion with Marshall T. Fuller, CRPDE.  
Visitor: Kathleen Crowther (Associate Professor History of Science).  
Readings: From Isis 102 (March 2011): “Focus: Between and Beyond ‘Histories of Science’ and ‘Histories of Medicine’” 97-133.

**Week 12 (Nov 10)**  
Class activity: OPEN  
Readings: OPEN

**Week 13 (Nov 17)**  
Class activity: OPEN  
Readings: OPEN

**Week 14 (Nov 24)**  
Class activity: OPEN  
Readings: OPEN

**Week 15 (Dec 01)**  Presentation of Critical Bibliographies