

**HISTORY OF SCIENCE 623**  
**Studies in Early Modern Science**  
 Fall 2002  
 5:00-6:15 T  
 6304 Social Science

instructor: Florence Hsia  
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COURSE REQUIREMENTS

Fulfill requirements for History of Science/History 323, and attend an additional "weekly" seminar (9 weeks out of 15). You'll be asked to take turns presenting the materials assigned for HOS 623 (the number of presentations will depend on the number of seminar participants). A typed summary/critique (1 page in length) should accompany each of your presentations; please make copies for all seminar participants.

In lieu of the midterm and final exercises for HOS 323, you should complete 15-20 pages of prose writing in connection with this course, e.g.: a research paper, based on primary sources in early modern European science; a critical discussion of some historiographical issue in the secondary literature; two or more book reviews (situate the book with respect to existing scholarship and critique the author's use of source material); or a bibliographic survey in preparation for a prelim field. Please see me as early as you can in the semester to discuss how you propose to fulfill the writing requirement.

You should be prepared to present a prospectus and preliminary bibliography to the seminar on **November 19**. We will discuss drafts on **December 10** (please email your draft to all seminar participants by Sunday, Dec. 7.) All of your written work is due **Friday, Dec. 20, by 12:00 noon**. Grading will be based on class participation (~25%), presentations (~25%), and the written work (50%).

SCHEDULE OF READINGS AND MEETINGS

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| Sept. 3  | Introductions.   |
| Sept. 10 | <p><b>historiographical perspectives</b></p> <ul style="list-style-type: none"> <li>• David C. Lindberg, "Conceptions of the Scientific Revolution," in <u>Reappraisals of the scientific revolution</u>, ed. Lindberg and Westman (Cambridge, 1990), pp. 1-26.</li> <li>• Margaret J. Osler, "The canonical imperative," in <u>Rethinking the scientific revolution</u>, ed. Osler (Cambridge, 2000), pp. 1-22.</li> </ul>  |
| Sept. 17 | <p><b>visual evidence</b></p> <ul style="list-style-type: none"> <li>• Owen Hannaway. "Laboratory design and the aim of science: Andreas Libavius versus Tycho Brahe." <u>Isis</u> 77 (1986): 585-610; reprinted in <u>The scientific enterprise in early modern Europe</u>, ed. by Peter Dear (Chicago, 1997).</li> <li>• Jole Shackelford, "Tycho Brahe, laboratory design, and the aim of science: reading plans in context," <u>Isis</u> 84 (1993): 211-30.</li> </ul> |
| Sept. 24 | <ul style="list-style-type: none"> <li>• Robert S. Westman, "The Melanchthon circle, Rheticus, and the Wittenberg interpretation of the Copernican theory," <u>Isis</u> 66 (1975): 165-93; reprinted in <u>The scientific enterprise in early modern Europe</u>, ed. by Peter Dear (Chicago, 1997).</li> </ul>   |

- Oct. 1           **the Galileo affair: patronage**  
 • Stillman Drake, "Galileo, Kepler, and phases of Venus," Journal for the history of astronomy 15 (1984): 198-208 (you may want to read the documents on pp. 205-8 first.)  
 • Richard S. Westfall, "Science and patronage," Isis 76 (1985): 11-30; reprinted in The scientific enterprise in early modern Europe, ed. by Peter Dear (Chicago, 1997).
- Oct. 8           • Mario Biagioli, Galileo, courtier (Chicago, 1993), chap. 1 (you may also want to look at the conclusion to chap. 6, pp. 348-52.)
- Oct. 15           **science and religion: the Merton thesis**  
 • Robert K. Merton, "Motive forces of the new science [1938]," reprinted in Puritanism and the rise of modern science: the Merton thesis, ed. by I.B. Cohen (Rutgers, 1990), pp. 112-31. Skim the appendix (pp. 373-89), which outlines Merton's Science, technology and society in seventeenth-century England (1938).  
 • Steven J. Harris, "Transposing the Merton thesis: apostolic spirituality and the establishment of the Jesuit scientific tradition," Science in context 3 (1989): 29-65.
- Oct. 22           No meeting.
- Oct. 29           No meeting.
- Nov. 5           No meeting (History of Science Society conference in Milwaukee – field trip?)
- Nov. 12           No meeting.
- Nov. 19           Presentations of prospectus and preliminary bibliography.
- Nov. 26           **scientific communities**  
 • Steven J. Harris, "Long-distance corporations, big sciences, and the geography of knowledge." Configurations 6 (1998): 269-304.  
 • Londa Schiebinger, "Maria Winkelmann at the Berlin Academy," Isis 78 (1987): 174-200; reprinted in The scientific enterprise in early modern Europe, ed. by Peter Dear (Chicago, 1997).
- Dec. 3           No meeting.
- Dec. 10           Discussion of drafts (please email your draft to all seminar participants by Sunday, Dec. 7.)

**All written work is due Friday, Dec. 20, by 12:00 noon.**