

HISTORY OF SCIENCE 623
Syllabus

Fall 1999
3:30-5:00 R
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Course Requirements:

1. Satisfy all the requirements of History of Science (or History) 323.
2. Participate in a "weekly" 90-minute seminar (9 weeks out of 15).
3. Write a seminar paper, 15-20 pages in length:

The paper must be fundamentally historical, dealing with a topic within the general field of 16th- and 17th-century European science. I recommend a historiographic and bibliographical essay, which should define a problem or issue, discuss the available scholarship (supplying full bibliographical data in the notes), analyze the various approaches that have been adopted or answers that have been offered, and assess the current state of the question. Other kinds of papers (e.g., research papers based on primary sources) may be proposed.

You will be graded not only on the intellectual content of your essay, but also on writing style (continuity of argument, effective use of topic sentences, sentence structure, punctuation, and spelling). You are to discuss possible topics with me and secure my approval by October 20. Essays are due on or before December 7.

DISCUSSION TOPICS AND SCHEDULE:

Sept. 2: Introduction.

Sept. 9: No meeting.

Sept. 16: **Heliocentrism after Copernicus.**

Thomas S. Kuhn, The Copernican Revolution, chaps. 1-5.

Robert S. Westman, "The Melanchthon Circle, Rheticus, and the Wittenberg Interpretation of the Copernican Theory," Isis, 66 (1975), 164-93.

Sept. 23: No meeting.

Sept. 30: **Galileo and Heliocentrism.**

1. Richard S. Westfall, "Science and Patronage: Galileo and the Telescope," Isis, 76 (1985), 11-30.

2. David Lindberg, "Galileo, the Church, and the Cosmos."

Oct. 7: **Laboratories and Experiment.**

1. Owen Hannaway, "Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe," Isis, 77 (1986), 585-610.

2. Steven Shapin, "The House of Experiment in Seventeenth-Century England," Isis, 79 (1988), 373-404.

Oct. 14: No meeting.

Oct. 21: The Yates Thesis.

1. Frances A. Yates, "The Hermetic Tradition in Renaissance Science," in Art, Science and History in the Renaissance, ed. Charles S. Singleton (Baltimore, 1968), pp. 255-74.
2. Robert S. Westman, "Magical Reform and Astronomical Reform: The Yates Thesis Reconsidered," in Westman and J. E. McGuire, Hermeticism and the Scientific Revolution (Los Angeles, 1977), pp. 5-34, 68-72.

Oct. 28: The Merton Thesis and its Critics.

1. Robert K. Merton, Science, Technology and Society in Seventeenth Century England (which appeared first in Osiris, 4, pt. 2 [1938]); excerpt reprinted in I. Bernard Cohen, ed., Puritanism and the Rise of Modern Science: The Merton Thesis (New Brunswick, 1990), pp. 112-31.
2. John Morgan, "Puritanism and Science: A Reinterpretation," The Historical Journal, 22 (1979), 535-60.

Nov. 4: No meeting.

Nov. 11: More Science and Religion.

1. William B. Ashworth, Jr., "Catholicism and Early Modern Science," in David C. Lindberg and Ronald L. Numbers, eds., God and Nature: Historical Essays on the Encounter between Christianity and Science (Berkeley and Los Angeles, 1986), pp. 136-66.
2. John Hedley Brooke, "Divine Activity in a Mechanical Universe," in Science and Religion: Some Historical Perspectives, pp. 117-151.

Nov. 18: No meeting.

Nov. 25: Neglected Problems: Medicine and Natural History.

1. Katharine Park, "The Criminal and the Saintly Body: Autopsy and Dissection in Renaissance Italy," Renaissance Quarterly, 47 (1994), 1-33.
2. William B. Ashworth, Jr., "Natural History and the Emblematic World View," in Reappraisals, pp. 303-32.

Dec. 2: Reports.

Dec. 9: Reports.

Bibliographical note: For additional reading on many of these topics, see H. Floris Cohen, The Scientific Revolution: A Historiographical Inquiry (Chicago: University of Chicago Press, 1994).