History 106
Introduction to the History of Science:
THE SCIENTIFIC REVOLUTION
Professor Robert S. Westman
Winter Quarter 2010
Tu Th 11-12:20 p.m.
Cognitive Science Building 005

Office: H&SS 4072; Tel.: 534-0491 (Science Studies Office)
Office Hours: Wednesdays, 1-3 p.m.; also available after class on most days, for immediate questions
Instructor's email: rwestman@ucsd.edu

Required Reading (Available at UCSD Bookstore and Blackboard Learning System [BLS]; formerly known as WebCT)
Book Abbreviations in square brackets below [=]

**Other Readings: “Blackboard Learning System” [BLS]. Enrollment gives you automatic access to BLS. “BLS + number” = Number under which reading is posted. “BLS Supplemental” = Supplemental readings are usually diagrams and are not posted under a numbered week. NOTE: Occasionally, BLS numbers do not correlate properly with week for which they are assigned. In all cases, the number given in the syllabus is the authority of first resort.

Recommended Reading


Lecture Topics and Associated Readings

Part I: The Copernican Problem

5 Jan. Introduction. The University: What would you have learned in the 16C? Where would you have learned it?

7 Jan., 12 Jan. The University Curriculum I: Aristotelian Natural Philosophy  
(a) Dear, RS, pp. 1-18; (b) Kuhn, CR, ch. 3

14 Jan., 19 Jan. The University Curriculum II: The Science of the Stars  
(a) Kuhn, CR, chaps. 1, 2; (b) BLS 2 and 3; Grafton, 22-37; (c) Dear, RS, pp. 18-29; (d) BLS “Supplemental” : Animations of planetary motions by Prof. Dennis Duke [Google: “Dennis Duke”->“Almagest Planetary Model Animations”; Scroll down to “II. Stand Alone Versions”; OR, directly on BLS Supplemental]; (e) BLS 2: Ptolemy, Almagest, selections. http://www.scri.fsu.edu/~dduke/models
Read: (a) Dear, *RS*, pp. 30-45; (b) Kuhn, *CR*, pp. 123-184; (c) BLS 3: Westman, "Copernicus and the Crisis of the Prognosticators"; (d) BLS 3: Copernicus, *Commentariolus*; (e) BLS Supplemental: Duke Animations [same link as above]

>>>Examination I: (in-class)<<<< February 2

**Part II: Conflicted Modernizers, Singular and Recurrent Novelties**

4 Feb. *The Copernicans and the Churches: Convincing Catholic Rome and Lutheran Wittenberg*
   (a) BLS 4: Westman, "The Melanchthon Circle, Rheticus and the Wittenberg Interpretation of the Copernican Theory"; (b) BLS 4: Westman, "The Copernicans and the Churches"

9 Feb. *Kepler: From the Cosmographic Mystery to the New Astronomy*

11 Feb. *Kepler and Galileo: Unexpected Novelties in the Heavens*

>>>Examination II: (in-class) <<<< February 16

**Part III: From Philosophizing Astronomers to New-Style Natural Philosophers**

18 Feb. *New Visions and Places of Scientific Authority in the Seventeenth Century*

23, 25 Feb.; 2 March *Divine Activity and the Mechanical Philosophy*
Read: (a) Dear, *RS*, pp. 80-100; (b) Kuhn, *CR*, pp.238-242; 252-4; (c) Descartes, *DM* (entire)

4 March *The Science of Politics and the Politics of Experiment: Galileo, Thomas Hobbes and Robert Boyle*

9, 11 March *Atheism Resolved: How Sir Isaac Newton Restored Law n'Order to the West’*

**Grading Requirements** : Exams I and II are in-class: multiple-choice/short-answer style. The final exam is essay-bluebook.
Examination I (25%): February 2 [four weeks after start]
Examination II (25%): February 16 [two weeks after first exam]
Final Examination (50%): March 18 [four weeks after second exam]

Final Exam Date: March 18, 11:30 a.m.-2:30 p.m.