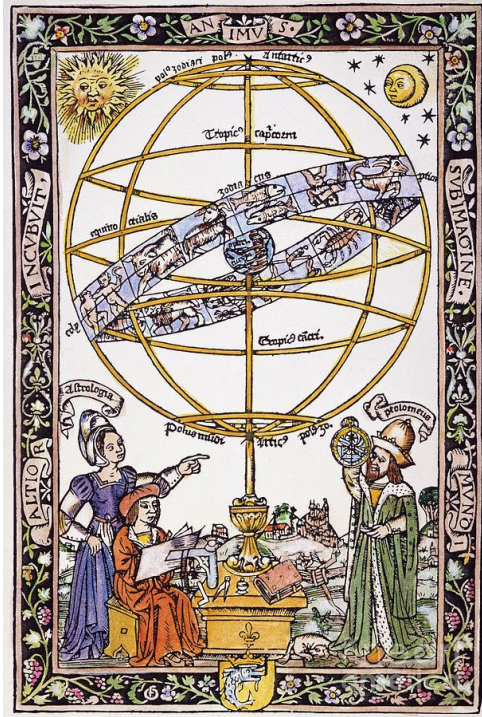


History 187: Science, Magic, and the Occult from Antiquity to Newton



MWF 10:25-11:15
 Lattimore 210
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This course explores the early history of humans' attempts to explain and control the cosmos, taking into account the real contributions made to early science by areas of inquiry now dismissed as magic or superstition, such as astrology, alchemy, and "natural magic." One major theme of the course will be the continuing way in which societies have policed the boundary between what they define as "magic" and what they dub legitimate "science." What is legitimate knowledge about nature, and who gets to define what counts as legitimate? The course will end around 1700, with Newton and the so-called "Scientific Revolution," and the marginalization of astrology, alchemy and similar fields of inquiry as "pseudo-sciences" or popular error.

Date	Topic	Reading
August 31	Introduction: What is science? What is magic?	Kieckhefer, <i>Magic in the Middle Ages</i> , Foreword, preface, and ch. 1
September 2	Approaches to the history of science and magic	Malinowski (ER), Evans-Pritchard (ER), Shapin (ER)

September 5	Labor Day holiday	
September 7	Science before the Greeks	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 2 (pp. 19-33)
September 9	Greek science	
September 12	No class	
September 14	Magic and rationality in the ancient world	
September 16	Discussion	Hippocrates (ER), Lucan (ER), Apuleius (ER), Theocritus (ER), Philostratus (ER)
September 19	The rise of Christianity	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 2 (pp. 33-42)
September 21	The triumph of Christianity and its effects on magic and science	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 3 (pp. 43-48)
September 23	Discussion	<i>The Apocryphal Acts of Peter</i> (ER)
September 26	Neoplatonism and demons in late antiquity	
September 28	The rise of magic in the early Middle Ages?	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 4 (pp. 56-80)
September 30	Science in the early Middle Ages	Paper 1 due.
October 3	The twelfth-century discovery of nature	
October 5	Discussion	Adelard of Bath and “On the Elements” (ER); Häring, “The Creation and Creator of the World,” pp. 137-8, 146-57 only (ER)
October 7	Magic and Arabic science, I: Astronomy and astrology	
October 10	Magic and Arabic science, II: Alchemy and mineralogy	
October 12	Discussion	Albertus Magnus (ER), Roger Bacon (ER), Pierre d’Ailly (ER), Nicole Oresme (ER); skim over <i>Donum Dei</i> (ER)

October 14	Magic and Arabic science, III: Healing	
October 17	Fall break	
October 19	Magic and learning at court	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 5 (all)
October 21	Discussion	Chrétien de Troyes, <i>Cligès</i> (ER); Chaucer, “Franklin’s Tale” and “Canon’s Yeoman’s Tale” (ER)
October 24	Sorcery, demonology, and ritual magic	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 7 (all)
October 26	Science, magic, and the universities	<i>Optional extra reading</i> : Nicholas of Poland, <i>Antipocras</i> (ER)
October 28	Renaissance Neoplatonic magic	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 8 (all)
October 31	Discussion	Ficino, excerpts from <i>Three Books on Life</i> (and <i>Apologia</i> from same) (ER); <i>Glossulae super librum imaginum lunae</i> (ER); Bednarski, <i>A Poisoned Past</i> , ch. 1-2, 4-5 (there will be an essay on Bednarski on the midterm exam)
November 2	The rise of the witch trials (Marianne Kupin-Lisbin)	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 6 (pp. 140-50)
November 4	Midterm exam	
November 7	The occult, science, and the new print culture	
November 9	The revolution in astronomy	Shapin, <i>The Scientific Revolution</i> , pp. 15-64 (this week and next)
November 11	Discussion	Galileo, “Letter to the Duchess Christina”; selections from <i>The Trial of Galileo</i> (ER)
November 14	Alchemy and the new Paracelsian science	
November 16	Collecting, museums, and the new science	(finish Shapin, <i>The Scientific Revolution</i> , pp. 15-64)

November 18	Discussion	Campanella, <i>City of the Sun</i>
November 21	The revolution in method	Shapin, <i>The Scientific Revolution</i> , pp. 65-117 (this week and next)
November 23	The social setting of the new science	
November 25	Thanksgiving holiday	
November 28	Discussion	Francis Bacon, <i>New Atlantis</i>
November 30	Protestants, Catholics, and science in early modern Europe	
December 2	Astrology, magic, and civil disorder in the 16th and 17th centuries	(finish Shapin, <i>The Scientific Revolution</i> , pp. 65-117)
December 5	The decline of magic?	Shapin, <i>The Scientific Revolution</i> , pp. 119-65 (this week and next). Paper 2 due.
December 7	Newton	
December 9	Discussion	Browne (ER) and Joubert (ER); Newton, <i>Principia</i> , selections (ER)
December 12	Modernism and rationality	(finish Shapin, <i>The Scientific Revolution</i> , pp. 119-65)

Take-home final exam: due December 19, by 5 p.m. in the History Department office

Learning objectives: At the end of this course, students will be able to

- Trace major developments in the history of western science and magic from the ancient world through Newton's *Principia*
- Discuss the ways in which the shifting labels "science" and "magic" have been used to designate legitimate and illegitimate knowledge about nature and the cosmos
- Analyze and interpret primary sources in the history of science and magic
- Explain the arguments of some major secondary authors in the history of science and magic
- Formulate an argument based on primary source evidence and express it clearly in written form
- Use primary sources to support claims made orally and in writing

Books to purchase:

Richard Kieckhefer, *Magic in the Middle Ages*, revised edition (Cambridge University Press/Canto). ISBN 0521785766

Steven Shapin, *The Scientific Revolution* (University of Chicago Press). ISBN 0226750213

Francis Bacon, *The New Atlantis*/Tomasso Campanella, *The City of the Sun* (Dover). ISBN 0486430820

Steven Bednarski, *A Poisoned Past: The Life and Times of Margarida de Portu, a Fourteenth-Century Accused Poisoner* (University of Toronto Press). ISBN 9781442604773

Electronic Reserves (ER). Readings designated (ER) in the syllabus are linked through Blackboard.

Course requirements:

In-class midterm exam (November 4)---20%

Final exam (take-home) (due December 19)----20%

Reading responses----10%

Participation in discussions----10%

Paper 1 (due September 30 in class)---20%

Paper 2 (due December 5 in class)--20%

Reading assignments are due on the day they appear in the lecture schedule. Reading responses are due on the day of the discussion on the pertinent materials.

Attendance at and participation in all classes is crucial. Three unexcused absences will lower your grade by 5%; after six unexcused absences, I reserve the right to withdraw you from the course. For the sake of accounting, three tardies will constitute one absence.

About the reading responses: For each discussion, you must bring to class and hand in a 1-2 page (double spaced) response to the readings. You will want to demonstrate that you have done all the reading (so if there are multiple texts to be discussed, be sure to mention all of them), that you have thought about the reading (so you will want to raise some questions or ideas for discussion), and that you can use evidence from the readings to back up a point (so you will want to offer brief quotations in support of arguments that you advance). I will post reading questions on Blackboard to help guide your reading. The grading rubric for the reading responses is as follows (on a scale of 1-10):

Discusses all assigned texts; demonstrates that student has done all the reading—0-7 points;

Raises questions or ideas about the readings—0-2 points;

Backs up arguments and assertions with effective quotations from the readings—0-1 point.

About paper 1: For the first paper, you will explore the insights of Malinowski, Evans-Pritchard, or Shapin, first laying out that author's theories about science and magic and, second, using that author's insights to analyze a primary source to which that author's ideas

seem to be particularly relevant. Choices for the primary source: Hippocrates, Lucan, Apuleius, Theocritus, Philostratus, or *Apocryphal Acts of Peter*. Be sure to indicate why you find that particular author's theories to be so suitable to the source you have chosen and to apply the sorts of questions raised by that author to your chosen text. You may wish to conclude by considering some of the advantages and limitations of your particular theorist's ideas.

About paper 2: For the second paper, you will either write an in-depth analysis of a single text from among the assigned readings by Chrétien de Troyes, Chaucer, Ficino, Galileo, Campanella, or Francis Bacon, or offer a comparison of two of those texts, provided that the comparison deepens your reading of one of the texts (I don't just want a list of similarities and differences). Alternatively, you may propose a topic of your own devising, provided you have it approved by me in writing at least two weeks in advance.

Late work: Late work will be penalized 10% for each calendar day late. I do not accept emailed assignments without prior arrangement and only under the most exigent of circumstances.

Grading scale:

A	100-93%
A-	92.9-90%
B+	89.9-87%
B	86.9-83%
B-	82.9-80%
C+	79.9-77%
C	76.9-73%
C-	72.9-70%
D+	69.9-67%
D	66.9-63%
D-	62.9-60%
F	Below 60%

In case of some mix-up, it is a good idea to save all returned work until you receive your grade at the end of the semester.

Students with disabilities: The Center for Excellence in Teaching and Learning (CETL, 1-154 Dewey Hall, 585-275-9049) offers a variety of disability services for undergraduates and graduate students in Arts, Sciences & Engineering. These services aim to provide an inclusive experience and equal access to academic content and program requirements. They can help you to request needed accommodations for your success in this class. You can learn more at: www.rochester.edu/college/cetl/undergraduate/disability. If you have any questions or concerns, please feel free to contact me as well.

Classroom etiquette: Please turn off cell phones and beepers or set them to a silent alert. In the rare event you must enter late or leave class early, please let me know in advance.

Academic honesty: All assignments and activities associated with this course must be performed in accordance with the University of Rochester's Academic Honesty Policy. Cheating and plagiarism are serious offenses and will be treated as such. Anyone who engages in such activities will be turned over to the College Board on Academic Honesty for disciplinary action, as outlined at <http://www.rochester.edu/College/honesty/>.

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Disclaimer: The instructor reserves the right to change topics and assignments on the syllabus at any point in the semester.