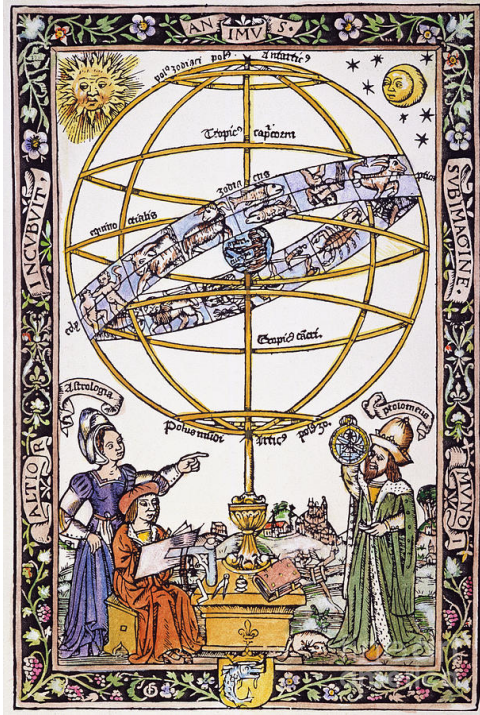


## History 187: Science, Magic, and the Occult from Antiquity to Newton



Spring 2022  
MW 12:30-13:45  
Goergen Hall, room 108

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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.*

*All UR classes will be meeting remotely through the month of January. Our class will meet on Zoom at the scheduled class time. Here is a Zoom link for all class meetings:*

<https://rochester.zoom.us/j/98344224185?pwd=UUxrTmptmd1h3ZW9LUVhA2SnZxeFIMZz09>

Date	Topic	Reading
January 12	Introduction: What is science? What is magic?	Kieckhefer, <i>Magic in the Middle Ages</i> , Foreword, preface, and ch. 1; Falk, <i>The Light Ages</i> , Prologue, pp. 1-14
January 17	No class: Martin Luther King	

	holiday	
January 19	Approaches to the history of science and magic	Malinowski (ER), Evans-Pritchard (ER), Shapin (ER)
January 24	The ancient world: Understanding and controlling the cosmos	Kieckhefer, <i>Magic in the Middle Ages</i> , ch. 2 (pp. 19-33); Falk, <i>The Light Ages</i> , ch. 1, pp. 15-42
January 26	<b>Discussion</b>	Hippocrates (ER), Lucan (ER), Apuleius (ER), Theocritus (ER), Philostratus (ER); “Drawing down the moon” (ER)
January 31	The rise of Christianity and its effects	Kieckhefer, <i>Magic in the Middle Ages</i> , ch. 2 (pp. 33-42); Falk, <i>The Light Ages</i> , ch. 2, pp. 43-80
February 2	<b>Discussion</b>	<i>The Apocryphal Acts of Peter</i> (ER)
February 7	Neoplatonism, demons, and theurgy in late antiquity	
February 9	The early Middle Ages	Kieckhefer, <i>Magic in the Middle Ages</i> , ch. 3 (pp. 43-48); ch. 4 (pp. 56-80); Falk, <i>The Light Ages</i> , ch. 3, pp. 81-122
February 14	The twelfth-century discovery of nature	<b>Paper 1 due.</b>
February 16	Arabic learning, <i>scientia</i> , and the concept of natural magic	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 6 (pp. 116-39)
February 21	<b>Discussion</b>	Adelard of Bath and “On the Elements” (ER); Albertus Magnus (ER)
February 23	Magic and learning at court	Kieckhefer, <i>Magic in the Middle Ages</i> , ch. 5 (all); Falk, <i>The Light Ages</i> , ch. 4, pp. 81-122
February 28	<b>Discussion</b>	Chrétien de Troyes, <i>Cligès</i> (ER); Chaucer, “Franklin’s Tale” (ER)
March 2	Universities, theologians, and worries about magic and natural philosophy	Kieckhefer, <i>Magic in the Middle Ages</i> , ch. 7 (all); Falk, <i>The Light Ages</i> , ch. 5, pp. 164-201
March 5-13	<b>Spring Break</b>	Falk, <i>The Light Ages</i> , ch. 6-7 and Epilogue, pp. 202-98 <b>N.B.: There will be an essay about Falk’s book on the midterm exam.</b>
March 14	Renaissance Neoplatonic magic	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 8 (all)
March 16	<b>Discussion</b>	Ficino, excerpts from <i>Three Books on Life</i>

		(and Apologia from same) (ER); <i>Glossulae super librum imaginum lunae</i> (ER)
March 21	<b>Midterm exam</b>	
March 23	The rise of the witch trials (Sarabeth Rambold)	Kieckhefer, <i>Magic in the Middle Ages</i> , chapter 6 (pp. 140-50)
March 28	New approaches to nature: The occult, print culture, and secrets	Shapin, <i>The Scientific Revolution</i> , pp. 15-64 (this week and next)
March 30	New approaches to nature: The revolution in astronomy	
April 4	<b>Discussion</b>	Galileo, “Letter to the Duchess Christina”; selections from <i>The Trial of Galileo</i> (ER)
April 6	New approaches to nature: Alchemy, Paracelsianism, museums, and collecting	
April 11	<b>Discussion</b>	Campanella, <i>City of the Sun</i> (all)
April 13	New approaches to nature: The revolution in method	Shapin, <i>The Scientific Revolution</i> , pp. 65-117 (this week and next)
April 18	<b>Discussion</b>	Francis Bacon, <i>New Atlantis</i> , pp. 61-111, 133-57
April 20	New approaches to nature: The social setting	
April 25	Religious and civil disorder and the reshaping of knowledge in the 16th and 17th centuries	<b>Paper 2 due.</b>
April 27	Newton: The end of the story?	Shapin, <i>The Scientific Revolution</i> , pp. 119-65; Newton, <i>Principia</i> , selections (ER)

**Take-home final exam due by 5 p.m. on the day of our assigned final exam.**

### 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:

- Francis Bacon, *The New Atlantis and the Great Instauration*, 2<sup>nd</sup> edition, ed. Jerry Weinberger (Wiley/Blackwell), paperback. ISBN 978-1-119-09802-7
- Seb Falk, *The Light Ages: The Surprising Story of Medieval Science* (W. W. Norton), paperback. ISBN 978-0393868401
- Tommaso Campanella, *La Città del Sole/The City of the Sun*, trans. Daniel J. Donno (University of California Press), paperback. ISBN: 9780520040366
- Richard Kieckhefer, *Magic in the Middle Ages*, 2nd edition (Cambridge University Press/Canto Classics), paperback. ISBN 978-1-107-43182-9
- Steven Shapin, *The Scientific Revolution*, 2<sup>nd</sup> edition (University of Chicago Press), paperback. ISBN: 978-0226398341

The River Campus Libraries is happy to purchase electronic copies of assigned texts when available for course reserve. Some e-book vendors and publishers place a limit on the number of simultaneous users that can access a particular text. This is a decision made by the vendors and publishers and is not a policy determined by the library. During the COVID-19 pandemic many of our e-books have seen increased traffic. It is highly recommended that you plan ahead for all course readings and “close” the book when finished so that all members of your class may enjoy access to the text.

All of our required books, save Falk, *The Light Ages*, are available through Rush Rhees Library in e-book format. **Please note that you will be reading the entirety of Falk’s book and will be writing an essay about the book on the midterm exam.**

The history department’s Kelly Family Book Fund can assist students with financial need by purchasing materials for history courses. This fund was established to provide support for course materials for students in need who are pursuing an undergraduate degree in history. All students taking a history course may apply; preference will be given to those who are majoring in history. To apply for assistance in purchasing your textbooks, use the following link: [https://docs.google.com/forms/d/e/1FAIpQLScxPwiai1gQMlnU5\\_Vae458UzwwgEZNI6R6Dy53aqBYEnhg-cg/viewform](https://docs.google.com/forms/d/e/1FAIpQLScxPwiai1gQMlnU5_Vae458UzwwgEZNI6R6Dy53aqBYEnhg-cg/viewform).

### Additional readings:

Readings designated as (ER) in the syllabus are available on Blackboard in a folder labeled Electronic Reserves.

### Course requirements:

- In-class midterm exam (March 21)----20%
- Take-home final exam (due on the day of our scheduled final exam)----20%
- Reading responses----10%
- Participation in discussions----10%
- Paper 1 (due February 14 on Blackboard and in hard copy in class)----20%
- Paper 2 (due April 25 on Blackboard and in hard copy in class)----20%

Reading assignments are due on the day they appear in the lecture schedule. **Reading responses must be posted by 9 a.m. on the day we are discussing 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 impose a failing grade in the course. For the sake of accounting, three tardies will constitute one absence.

About the reading responses: For each discussion, you must post on Blackboard a response to the readings that includes a quotation chosen from **each** primary source assigned for that day's discussion that you would like to discuss, plus a sentence or two explaining why you have chosen that quotation. **Please do not quote from the editors' introductions to primary texts;** the aim is to think about how historians can use primary sources as evidence to prove a point. I have posted reading questions on Blackboard to help guide your readings for each discussion. **All reading responses must be posted by 9 a.m. on the day of discussion.**

About paper 1: For the first paper, you will explore one of the primary sources we have read utilizing insights borrowed from Malinowski, Evans-Pritchard, and/or Shapin. Your paper should not be merely descriptive, but rather argue for a clear thesis that deepens our understanding of your chosen primary text. Choose one of the following prompts:

- Evans-Pritchard alerted historians to the importance of looking at accusations of witchcraft and magic as windows into tensions present within the surrounding society. Examine the ways in which the author of *On the Sacred Disease* deploys the charge of "magic" (or various synonyms). What do his choices suggest about the social setting in which the treatise was composed, the author's purpose, and his presumed audience?
- At stake in *The Apocryphal Acts of Peter* is the meaning of the wonders produced by Simon Magus and Simon Peter, whether they represent magic or true miracles. Keeping in mind Steven Shapin's analysis of the way "credibility" is embedded in the social setting of the truth claims under consideration, analyze who in the text is empowered authoritatively to judge what is "miracle" and what is "magic" (or something else) and why those individuals' voices matter most.
- In his description of the witch Erichtho in the *Pharsalia*, Lucan draws a contrast between legitimate ways of seeking to know the future and the illegitimate means utilized by Erichtho. What, in Lucan's presentation, makes the difference? What about Erichtho's witchcraft oversteps bounds? How might Lucan's association of magic with "young Sextus" reflect some commentary on tensions within his own society of the sort Evans-Pritchard might deduce from witchcraft accusations?

- Malinowski's analysis of the relationships between magic, science, and religion offers a theory about *when* persons turn to magic as well as *how* magic spells and rituals embody and act out human emotions. Use Malinowski's insights to offer a reading of Theocritus's *Idyll* 2, keeping in mind that his poem displays a knowledge of known ancient magic rituals.

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.

In your paper, you should set the text(s) being analyzed within a historical context, considering specifically what about that context informs your chosen author's (or authors') particular take on "science," "magic," or the study of the natural world. Be sure that your paper argues for a thesis, which is clearly stated in the opening paragraph.

Citations: All work in this class should be appropriately footnoted. All citations should follow the University of Chicago Manual of Style Notes and Bibliography (Turabian) format. See: [https://www.chicagomanualofstyle.org/tools\\_citationguide/citation-guide-1.html](https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-1.html) for a quick reference. The full Chicago Manual of Style is available online through River Campus Libraries: [https://rochester.primo.exlibrisgroup.com/permalink/01ROCH\\_INST/1vg5sr1/alma9978312313705216](https://rochester.primo.exlibrisgroup.com/permalink/01ROCH_INST/1vg5sr1/alma9978312313705216).

Late work: Late work will be penalized 5% 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.

**Statement regarding credit hours:** The College's credit hour policy on undergraduate courses is to award 4 credit hours for courses that meet for the equivalent of 3 periods of 50 minutes each week. Students enrolled in HIS 187 are expected to devote at least one hour each week to analyzing the course readings, working alone or in groups, and to reading and writing for the two papers in the class.

**A note regarding the use of computers in the classroom:** While I do not (yet) ban laptops from the classroom, there is a significant body of research that shows that people retain material more effectively when they take notes by hand rather than on a computer. (E.g., <https://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/>.) Needless to say, the opportunities for distraction are much greater if the Internet and the world of social media beckon. Similarly, while there are numerous readings posted on Blackboard for the class, researchers have demonstrated that reading a physical, hard copy of a text results in more focused and critical reading. (E.g., <https://newrepublic.com/article/135326/digital-reading-no-substitute-print>.) Ideally, you will print out readings that have been posted on Blackboard to read them. At the very least, you should plan to bring *some* version of the text to class (hard copy of digital) with you on discussion days.

### **General policies:**

Students with disabilities: The University of Rochester respects and welcomes students of all backgrounds and abilities. In the event you encounter any barrier(s) to full participation in this course due to the impact of disability, please contact the Office of Disability Resources. The access coordinators in the Office of Disability Resources can meet with you to discuss the barriers you are experiencing and explain the eligibility process for establishing academic accommodations. You can reach the Office of Disability Resources at: [disability@rochester.edu](mailto:disability@rochester.edu); (585) 276-5075; Taylor Hall. If you have any questions or concerns, please feel free to contact me as well.

Classroom etiquette: Please turn off cell phones or set them to a silent alert. Do not take them out in class unless instructed to do so. In the rare event you must enter late or leave class early, please let us 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/>. For helpful discussions of plagiarism (including subtle instances), see the American Historical Association's "Defining Plagiarism," <https://www.historians.org/teaching-and-learning/teaching-resources-for-historians/plagiarism-curricular-materials-for-history-instructors/defining-plagiarism>.

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notes by) any person or commercial firm without the express written permission of the professor teaching this course. Students may tape lectures for their own study purposes, but students are prohibited from selling such tapes or making them available to other students in any manner.

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