

THE UNIVERSITY OF MANITOBA
Department of Philosophy
History and Philosophy of Science PHIL 2610

Instructor: Rhonda Martens
Office: University College 456
Phone: 474-9104
Office hours: TBA, also by appointment.
e-mail: martensr@cc.umanitoba.ca (email is the fastest way to reach me outside class)

Textbooks:

Kuhn, T.S. ([1957] 1997) *The Copernican Revolution*. Cambridge, Massachusetts, and London, England: Harvard University Press.

Hollinger, R., Kline, A.D., and Rudge, D.W. (eds.). (1998) *Introductory Readings in the Philosophy of Science*. Amherst, New York: Prometheus Books. *

* NB: You can get the kindle edition of this book here:

http://www.amazon.com/Introductory-Readings-Philosophy-Science-ebook/dp/B002GYWQF0/ref=tmm_kin_title_0?ie=UTF8&m=AG56TWVU5XWC2

You don't need a kindle to read kindle books. You can read them on your computer. Last I checked the kindle version was \$9.99.

Content:

This course is designed to introduce students to central issues in the history and philosophy of science. The course is divided into two main sections: the history of astronomy from the Ancients to Kepler and Galileo; and the philosophy of science.

The history of astronomy (as opposed to the history of biology, or medicine, etc.) is chosen for several reasons. First, it has a very long history as a precise and successful empirical discipline. Second, it has been an important locus of debates on the proper interpretation of theories, on the manner in which observations support theories, on the method of determining the veracity and reliability of observations, on the legitimacy of interdisciplinary studies, and on the legitimacy of extra-empirical theory adjudication. Consequently, the history of astronomy is a particularly fruitful source of philosophical debates. If time permits, we'll cover the history of chemistry, although not in as much detail.

The philosophy of science segment of the course will cover several issues: whether science proceeds in a rational manner or not; whether scientific theories should be interpreted as true or merely useful; the nature of explanation and prediction; the nature of scientific confirmation; and whether it is possible to draw a rigorous distinction between science and pseudo-science. If time permits, we will also cover topics like feminist critiques of science, and the philosophy of science fiction.

Grade Breakdown:

- 15 short (1/2 to a full page) writing assignments. Worth 1% each.
- 2 short essays (3-5 pages). 10% for the first (Oct. 26), 15% for the second (Nov. 23).
- 1 draft of the long essay: 10%. Due Feb 29.
- 1 long essay (8-10 pages): 20%. Due March 21.
- In class final: 10%. April 4.
- Attendance and participation: 20%

Good discussion skills are critically important in any philosophy class. Students need to come to class prepared to discuss the readings. Regular attendance is required in this course.

Rules and Regulations:

All writing assignments are to be double-spaced with 1 inch margins and a 12 point font (preferably Times). If you write over the maximum allowed, the excess will not be read. If you write under the minimum, you probably aren't doing a good enough job. The page count does not include diagrams, endnotes, the title page, or the bibliography. I will have a drop box in ANGEL for assignments, though you can hand in a paper copy if you prefer. Hand-drawn diagrams can be submitted separately.

Rewrites and extensions will not normally be granted except on compassionate grounds, and only where the appropriate documentation is provided. Late essays will be penalized 2% per day (that includes days on the weekend as well).

Plagiarism is a serious offence, and will not be treated lightly in this class. At a minimum, students will receive 0% on the assignment in question. Students should familiarize themselves with the rules and regulations regarding cheating and plagiarism in section 8 in the General Academic Regulations and Requirements in the U. of M. Calendar or online at

<http://crscalprod1.cc.umanitoba.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=60&chapterid=227&topicgroupid=4056&loaduserredits=False>