

University of California, Davis
Department of Philosophy
INTRODUCTION TO PHILOSOPHY OF SCIENCE
PHI 30, Spring 2008
119 Wellman, TR 1:40-3 PM

Contact Information

Instructor: Professor Roberta Millstein
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Office Phone: 530-752-8987
Office Hours: Tues 3:10-4:10 PM, Thurs 12:30-1:30 PM, and by appointment
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TAs: Brad Morris - Monday disc. sections. **A01:** 6:10-7 PM, 125 Wellman. **A02:** 7:10-8 PM, 125 Wellman
Erik Johnson - Thursday disc. sections. **A03:** 6:10-7 PM, 1116 Hart. **A04:** 7:10-8 PM, 125 Wellman

Required Texts

Readings in the Philosophy of Science: From Positivism to Postmodernism, by Theodore Schick, Jr.
Other required readings available on course website on SmartSite

Course Description

This course considers a variety of questions in the philosophy of science, including: What is the nature of science? Can we distinguish science from “pseudoscience”? What role, if any, does gender play in science? No knowledge or ability in science is presupposed; however, we will take a non-mathematical look at a number of (potential) sciences, including creationism, evolution, sociobiology and parapsychology.

The goals of this course are: 1) to introduce you to some of the major issues within the philosophy of science; 2) to gain an understanding of the nature of science, and to be able to apply that understanding to particular cases (e.g., astronomy, evolutionary theory); 3) to encourage you to critically examine your own beliefs as well as the beliefs of others; 4) to provide the opportunity to discuss, both in class and in a more sustained written form, your ideas and arguments concerning important issues in the philosophy of science

Class Policies and Course Requirements

If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please contact me as soon as possible.

You are responsible for *all* material covered in class, including announcements, discussions, etc. – whether you are in class or not. **Take notes on discussions as well as lecture.** Announcements are usually made at the beginning of class, so *please be on time*, and if you must be late or leave early, please do so quietly.

Since we will be discussing the readings in class, **you should bring the reading for the day to each class.** Please turn off pagers & cell phones. Please do not bring guests (friends, children, etc.) without my permission. Eating in class is ok if it is done quietly and unobtrusively.

Your grade will be based on the following (all dates subject to change):

- 10%** - Comments/questions on each day’s readings, **posted to the Forums section of SmartSite before class**, and group work in your discussion section. These are graded CR/NC. **Note:** 10%=full letter grade!
- 60%** - Three two-page analytical essays - **due dates Tues Apr 29, Thurs May 15, and Tues June 3**
- 30%** - Take-home final exam - **due by 12:30 PM, Tues June 10**

You must complete all three analytical essays and the final exam in order to pass the class. In the case of a borderline grade, class participation will be given serious consideration.

Important note on plagiarism/cheating:

It is a violation of the Code of Academic Conduct to turn in work that is not your own. This includes: turning in the work of another student with your name on it, buying/copying a paper off the Internet, using the words *or* ideas of others without proper quotation and citation. In accordance with Regulation 550 of the Davis Division of the Academic Senate, **a grade of "0" will be assigned to examinations or assignments on which cheating, plagiarism or any other form of academic dishonesty is admitted or determined to have occurred by proper adjudication.** If you have trouble with the class material or have personal issues that prevent you from doing your work, come talk to me.

Tentative Schedule - All dates and readings are subject to change.

The readings marked "SS" are available on SmartSite. All other readings are in the Schick textbook.

Date	Topic	Reading
Apr 1	Introduction	None
Apr 3	Pseudoscience?	Watch "Secrets of the Psychics"
Apr 8	Scientific Method (logic-based)	pp. 6-8 (Ayer), pp. 38-41 (Hume)
Apr 10	Scientific Method (logic-based)	pp. 41-49 (Hempel)
Apr 15	Scientific Method (logic-based)	pp. 49-53, pp. 9-13 (Popper)
Apr 17	Scientific Method (historical)	pp. 53-57 (Duhem)
Apr 22	Scientific Method (historical)	pp. 13-19, pp. 183-190 (Kuhn)
Apr 24	Scientific Method (historical)	pp. 20-26 (Lakatos)
Apr 29	Science and Objectivity	pp. 315-318 (Feyerabend)
May 1	Science and Objectivity	SS: Montgomery
May 6	Science and Objectivity	SS: Jaggar
May 8	Science and Objectivity	SS: Two articles by Longino
May 13	Science and Objectivity	SS: Kosso, Suter
May 15	Application: Creationism and Evolution	SS: Bible, ICR, Gish
May 20	Application: Creationism and Evolution	SS: Flank, Rennie, Vuletac
May 22	Application: Creationism and Evolution	pp. 26-29 (Laudan), pp. 30-34 (Ruse), SS: Act 590
May 27	Application: Creationism and Evolution	SS: Behe
May 29	Application: Creationism and Evolution	SS: Jones
June 3	Application: Sociobiology	pp. 370-376 (Gould), pp. 377-386 (Caplan)
June 5	Application: Parapsychology	pp. 387-392 (Thouless, Radner)
June 10	No class – take-home final due	