

Phil 382: Philosophical Approaches to Science

Fall 2008

Location: 137 SOM • Time: MWF 12:20-1:10

Instructor: Jeffrey Dunn

Office: 367 Bartlett Hall

Office Hours: Thursday, 10:00-11:00 and by appointment

Email: jdunn@philos.umass.edu

Course Website: <http://people.umass.edu/jdunn/Phil%20382%20Home.html>

or

<http://people.umass.edu/jdunn/> (click on “Courses”, then “Phil 382”)

Description:

In this course we will focus primarily on epistemological issues relating to science. In pursuit of this goal we will review some of the major developments in the philosophy of science in the 20th century, proceeding chronologically through important works of A.J. Ayer and the logical positivists, Karl Popper, Thomas Kuhn, Paul Feyerabend, and others. Alongside this chronological survey, we will pause to investigate several key issues including: confirmation and refutation, Hempel’s Raven Paradox, induction and Hume’s Problem, and Goodman’s New Riddle of Induction. After this we will spend some time thinking about the Demarcation Problem – the problem of distinguishing science from pseudoscience (e.g., is intelligent design just as much a science as evolution?). We will conclude the course by considering the relation between science and other aspects of society. Possible further topics include: scientific realism/anti-realism and modern theories of confirmation.

Required Texts:

(available at *Amherst Books*)

Theory and Reality, by Peter Godfrey-Smith

Language, Truth, and Logic, by A.J. Ayer

The Structure of Scientific Revolutions, by Thomas Kuhn

Various articles available on JSTOR, UDrive, or online.

Basic Schedule:

(for a more complete schedule, see the course website)

9/3 – 9/5	Introduction
9/8 – 9/24	Logical Positivism
9/26 – 10/6	Paradoxes of Induction
10/8 – 10/14	Popper
10/15 – 10/31	Kuhn
11/3 – 11/19	Science/Pseudoscience
11/21 – 12/3	Critiques of Science
12/5 – 12/12	TBA

Course Expectations:

- Lectures:* You are expected to attend lectures, take detailed notes, and participate in class discussions.
- Reading:* You are expected to complete the required reading for each class meeting, and come prepared to discuss the material and ask questions.
- Internet:* You are expected to have regular access to the internet to view the class schedule, and to view and print papers that are available on the web, on UDrive, or on JSTOR.
- Homework:* You are expected to complete five homework assignments throughout the term that concern the readings from the previous weeks.
- Midterm Paper:* You are expected to complete a midterm paper (4-5 pages) by 10/31. The topic of the midterm paper is up to you, but you must discuss your topic with me and have it approved before submitting the paper. You may use your midterm paper as a basis for your final paper.
- Final Paper:* You are expected to complete a final paper (8-10 pages) by 12/12. The topic of the paper is up to you, but the topic must be approved before you submit the paper. In your final paper, you are expected to cite and discuss articles that we did not discuss in class.

Grading:

Attendance and Participation	10%
Homework*	35%
Midterm Paper [†]	20%
Final Paper [†]	35%

*Late Homework is not accepted.

[†]Late papers will be penalized by one grade unit per day late (e.g., A becomes A-).

Logistical Information:

Some of our reading assignments are not available in the three required texts. These articles are available online and are linked from the Schedule on the course web page (<http://people.umass.edu/jdunn/Phil%20382%20Schedule.html>). They are linked in one of three ways. First, some of the articles are available through JSTOR. If you are accessing the article through the UMass network, clicking on the link will take you to the article. If you are *not* on the UMass network, then you must gain access to JSTOR through the UMass library site. If you need help figuring out how this works, please let me know. Second, some of the articles are available on UDrive. After clicking on the UDrive link you will be asked to enter your username and password. Your username is your UMass user ID, and your password is your UMass user ID password. If you have any problems with this, please let me know. Finally, some of the articles are available on various public websites. By clicking on the link, you'll be automatically taken to the article.

Students with Disabilities:

If you have a disability relevant to this course that you think that I should be aware of, please contact me as soon as possible.

Academic Dishonesty:

Academic dishonesty is a serious offense, and I take it very seriously. There is a clear Academic Honesty Policy that can be found here:

http://www.umass.edu/dean_students/code_conduct/acad_honest.htm

If you are unclear about what academic dishonesty is, it is your responsibility to read the university policy and contact me with any questions so that you are clear about it. Ignorance is not an excuse. If I discover any instance of academic dishonesty, I will pursue the harshest penalty consistent with university policy.