



FACULTY OF ARTS
DEPARTMENT OF PHILOSOPHY

**PHIL 467 Lec 01 – “Problems in the Philosophy of Science”
Fall Term 2010**

Course Outline

Lectures: MWF 11:00-11:50 in ST 027

Instructor: Marc Ereshefsky

Office: SS1232

Phone: 403-220-3162

Email: ereshefs@ucalgary.ca

Office Hours: Monday 15:00-16:00 & Wednesday 12:30-13:30

Course Description

This course will focus on philosophical accounts of scientific explanation. We will explore prominent theories of explanation, as well as two problematic areas of explanation: functional explanation and historical explanation.

Required Texts

Students will be able to obtain the course’s readings through electronic journals or the instructor’s BlackBoard site.

Evaluation and Grading

Two tests and one paper are required. No Registrar-scheduled final will be given.

- For the tests, questions will be distributed in advance. Questions will be drawn from class readings and discussion.
- For the paper, topics will be assigned. Topics will be drawn from class readings and class discussion. Maximum length for papers is 6 pages, not including endnotes and bibliography. Papers need to be typed, double-spaced and have one inch margins.
- The tests will be given during lecture on October 15 and November 15. The paper is due on December 10. No make-up tests will be given or late papers accepted without an appropriate excuse.
- Each test is worth 30 points. The paper is worth 40 points.
- Final grades will be awarded as follows.

96-100 = A+	75-79 = B	55-59 = C-
90-95 = A	70-74 = B-	50-54 = D+
85-89 = A-	65-69 = C+	45-49 = D
80-84 = B+	60-64 = C	below 45 = F

BlackBoard and Email

Class information and handouts will be posted on BlackBoard. You’ll be sent class announcements through email. The email account used will be the one you gave the University Registrar, so make sure to check that account.

Readings

- Hempel and Oppenheim, "Studies in the Logic of Explanation." In J. Kourany 1987 *Scientific Knowledge*, Wadsworth Publishing Company, Belmont, pp. 30-43. Originally published in *Philosophy of Science* (1948) 15, 135-175.
- Hempel, "Statistical Explanation." In: J. Kourany 1987, pp. 44-50. Originally published in 1965 *Aspects of Scientific Explanation and Other Essays in Philosophy of Science*, New York, Free Press, pp. 376-386.
- Salmon, W. 1978 "Why Ask 'Why?': An Inquiry Concerning Scientific Explanation," *Proceedings and Addresses of American Philosophical Association* 51, pp. 683-705.
- Van Fraassen, B. "The Pragmatics of Explanation." In J. Kourany 1987, pp. 65-76. Originally published in 1980 *The Scientific Image*, pp. 103-106, 111-113.
- Kitcher, P. 1981 "Explanatory Unification," *Philosophy of Science* 48, pp. 507-531.
- Machamer, P., L. Darden, C. Craver. 2000 "Thinking about Mechanisms," *Philosophy of Science* 48, pp. 507- 531.
- Strevens, M. "Why Explanations Lie: Idealization and Explanation," unpublished manuscript.
- Woodward, J. "Causation in biology: stability, specificity, and the choice of levels of Explanation," *Biology and Philosophy* 25, pp. 287-318.
- Perlman, "Traits Have Evolved to Function the Way They Do Because of Past Advantage." In F. Ayala, R. Arp 2010, *Contemporary Debates in Philosophy of Biology*, Wiley-Blackwell, Malden, pp. 53-71.
- Cummins and Roth, "Traits Have Not Evolved to Function the Way They Do Because of Past Advantage." In F. Ayala, R. Arp 2010, pp. 72-85.
- Celand, C. "Prediction and Explanation in Historical Natural Science," *British Journal of Philosophy of Science*, forthcoming.
- Beatty, J. 2006 "Replaying Life's Tape," *The Journal of Philosophy* 103, pp. 336-362.

INTELLECTUAL HONESTY

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. As a result, cheating or plagiarism on any assignment or examination is regarded as **an extremely serious academic offence**, the penalty for which may be an F on the assignment and possibly also an F in the course, academic probation, or requirement to withdraw. The University Calendar states that plagiarism exists when:

- *the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test);*
- *parts of the work are taken from another source without reference to the original author;*
- *the whole work (e.g., an essay) is copied from another source; and/or*
- *a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.*

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism occurs not only when direct quotations are taken from a source without specific acknowledgement, but also when original ideas or data from the source are not acknowledged. A bibliography is insufficient to establish which portions of the student's work are taken from external sources; footnotes or other recognized forms of citation must be used for this purpose.

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodation. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

STUDENTS' UNION REPRESENTATIVES

The Faculty of Arts Representatives are Laura Golebiowski (arts1@su.ucalgary.ca), Bhuvana Sankaranarayanan (arts2@su.ucalgary.ca), Lara Schmitz (arts3@su.ucalgary.ca), and Vincent St. Pierre (arts4@su.ucalgary.ca).

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY (FOIP) ACT

The University of Calgary is under the jurisdiction of the provincial FOIP Act in all aspects of its operations as a publicly funded institution. The Department of Philosophy ensures the student's right to privacy by requiring all graded assignments be returned to the student directly from the instructor unless other arrangements have been made in writing and filed with the Department Administrator.

SAFEWALK: PROMOTING CAMPUS SAFETY AND AWARENESS

Twenty four hours a day, seven days a week, Safewalk volunteers walk people safely to their destination on campus. This service is free and available to students, staff, and campus visitors. Safewalks are done in male/female pairs. The volunteers walk anywhere on campus (including McMahon Stadium, Health Sciences, Student Family Housing, the Alberta Children's Hospital and the University LRT station). To request a Safewalk volunteer to walk with you, call 403-220-5333 (24 hours a day/7 days a week/365 days a year) or use one of the Help Phones located across campus (they are not just for emergencies).