



FACULTY OF ARTS
DEPARTMENT OF PHILOSOPHY

PHIL 467 Lec 01
PROBLEMS IN THE PHILOSOPHY OF SCIENCE
Fall Term 2012

Course Outline

Lectures: TuTh 14:00-15:15 in ST 130

Instructor: Marc Ereshefsky

Office: SS1232

Phone: 403-220-3162

Email: ereshefs@ucalgary.ca

Office Hours: Tu 12:00-13:00, Th 15:30-16:30 and by appointment

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 and in anthologies on reserve at the University Library.

Evaluation and Grading

Two tests, one paper, and four articles analyses are required. No registrar scheduled final will be given.

Tests: Test questions will be distributed in advance. Questions will be drawn from class readings and discussion. The tests will be given during lecture on October 16 and November 20. Each test is worth 25 points.

Paper: 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. The paper is due on December 7. The paper is worth 30 points.

Article Analyses: Each analysis must be handed in **before** we discuss that article in class. In an analysis, describe a particular point or argument in the article. Then critically analyze that point, or pose a question about it, or provide an independent argument in support of that point. An article analysis is not an article summary, but an analysis of a portion of the article. The maximum length for an article analysis is 2 pages. Each article analysis is worth 5 points.

- No make-up tests will be given or late papers accepted without an appropriate excuse.
- 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

Style and Citation Requirements

- All written work for this course should be submitted as hard copies. Work must be double-spaced, with 12 point font and 1 inch margins.
- Whenever you quote someone, provide the source and page numbers from that source. Here's an example: Dr. Black says that "all kittens are incredibly cute" (1993, p. 46). '(1993, p. 46)' refers to the article or book and page number where Dr. Black says that. Place detailed information about the article or book in your bibliography.
- Whenever you attribute a view or idea to a person, provide the source and page number where that claim is made. Here's an example: Dr. White likes kittens, but argues that puppies are far cuter (1994, p. 333).
- Use the following method for listing articles and books in your bibliography.
 - Smith, D. (1997) "A Theory of Cats," *Philosophy of Science* 44: 60-88.
 - Smith, D. (1998) *A New Theory of Cats*, Blackwell Publishers.
 - Smith, D. (1992) "A Theory of Great Cats," in J. Armstrong (ed.) *An Anthology on Theories of Great Cats*, Oxford University Press, 60-88.
 - Canto, P. (2006). "A Theoretical Discussion of Cats." <http://ohiou.edu/CatTheory>

The first entry is for an article, the second for a book, the third for a chapter in an edited book, and the fourth for a web site.

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, C. and Oppenheim, P. 1948 "Studies in the Logic of Explanation," *Philosophy of Science* 15,135-175. *Only read pages 135-146 and 152-157*
- Salmon, W. 1978 "Why Ask 'Why?'" An Inquiry Concerning Scientific Explanation," *Proceedings and Addresses of the American Philosophical Association* 51, pp. 683-705.
- Cartwright, N. 1980 "Truth Doesn't Explain Much," *American Philosophical Quarterly* 17, No. 2, April, pp. 159-163
- Van Fraassen, B. "The Pragmatics of Explanation." In J. Kourany (ed.), *Scientific Knowledge*, 1987, pp. 65-76. Originally published in van Fraassen 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.
- Beatty, J. 2006 "Replaying Life's Tape," *The Journal of Philosophy* 103, pp. 336-362.
- Cleland, C. 2011 "Prediction and Explanation in Historical Natural Science," *British Journal of Philosophy of Science*, 62, pp. 551-582.
- Perlman, M. "The Modern Philosophical Resurrection of Theology." In Rosenberg and Arp (eds.) *Philosophy of Biology*, 2010, pp. 149-163. Originally printed in *The Monist* (2004), pp. 3-51.
- Cummins, R. "Neo-Theology." In Rosenberg and Arp (eds.) *Philosophy of Biology*, 2010, pp. 164-174. Originally printed in Ariew, Cummins, Perlman (eds.) *Functions: New Essays in the Philosophy of Psychology and Biology*, OUP (2002).
- Godfrey-Smith, P. 1994 "A Modern Theory of Functions," *Nous* 28, pp. 344-363.
- Kourany (ed.), *Scientific Knowledge* (1987) is on reserve for Philosophy 467.
 - Rosenberg and Arp (eds.), *Philosophy of Biology* (2010) is on reserve for Philosophy 565.

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: Sarah Damberger arts1@su.ucalgary.ca; Hana Kadri arts2@su.ucalgary.ca; Kelsy Norman arts3@su.ucalgary.ca; Jack Mills 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.

PHILOSOPHY DEPARTMENT

The Department of Philosophy is located on the 12th floor of the Social Sciences Building and on the web at www.phil.ucalgary.ca

PHILOSOPHY UNDERGRADUATE PROGRAM ADVISORS FOR FALL 2012:

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For assistance with registration issues in Philosophy courses, contact

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