



UNIVERSITY OF CALGARY
FACULTY OF ARTS
Department of Philosophy

PHIL 467 Lec 01
“Problems in the Philosophy of Science”
Winter Term 2019

Course Outline

Lectures: TuTh 12:30 pm – 1:45 pm, SH274

Instructor: Marc Ereshefsky

Office: SS 1204

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Email: ereshefs@ucalgary.ca

Office Hours: Tuesday 2:00-3:30 & by appointment

Course Description

The course will focus on philosophical accounts of scientific explanation. We will explore prominent theories of explanation, as well a particularly problematic area of explanation: historical explanation.

Prerequisites:

Two previous courses in Philosophy: one of which must be Philosophy 275, 279, or 377; and one of which must be Philosophy 201 or 395.

Course Learning Outcomes

- Deep knowledge of one central area of philosophical inquiry –scientific explanation.
- Ability to critically digest, interpret, and analyze complex sources.
- Ability to identify and articulate questions for discussion and investigation.
- Ability to write a convincing argument that takes adequate account of alternative positions.
- Ability to engage in constructive, respectful oral and written argumentation.

Course Assessment

Two tests, one paper, and five articles analyses are the assignments for this course. 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 **February 12** and **March 21**. 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 footnotes and bibliography. The paper is due on **April 15** and is worth 30 points.

Article Analyses:

- Each analysis must be handed in **before** we discuss the article in class.
- In an analysis, describe a particular point or argument in the article, not the entire 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 an article.
- The maximum length for an article analysis is 2 pages.
- Each analysis is worth 4 points.
- Examples of analyses are posted in D2L.

- You can hand in more than 5 analyses. If you receive higher grades on extra analyses, then the grades on your lower valued analyses will be replaced with the grades from your higher valued analyses.
- No make-up tests will be given, nor late analyses or papers accepted without an appropriate excuse.
- No single test, paper, or analysis is required to pass the course.
- Final grades will be awarded as follows.

96-100 = A+	80-83 = B	68-69 = C-
90-95 = A	78-79 = B-	64-67 = D+
88-89 = A-	74-77 = C+	60-63 = D
84-87 = B+	70-73 = C	below 60 = 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 writes that "all kittens are incredibly cute" (1993, p. 46).
'(1993, p. 46)' refers to the article or book and page number where Dr. Black writes 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.

Course Readings

Articles and chapters can be found in electronic journals and books available through the University Library. All of these readings are required.

- Hempel, C. and Oppenheim, P. (1948) "Studies in the Logic of Explanation," *Philosophy of Science* 15,135-175. *Read only 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.
- Woodward, J. (2001) "Laws and Explanation in Biology: Invariance is the Kind of Stability that Matters," *Philosophy of Science* 68, pp. 1-20.
- Hempel, C. (1942) "The Function of General Laws in History," *Journal of Philosophy* 39, pp. 35-48.
- Gallie, W. (1955) "Explanations in the Historic and Genetic Sciences," *Mind* 64, pp. 160-180.
- Beatty, J. (2006) "Replaying Life's Tape," *The Journal of Philosophy* 103, pp. 336-362.

- Ereshefsky, M. & Turner, D. (Forthcoming) "Historicity and Explanation," *Studies in the History and Philosophy of Science*.
- Cleland, C. (2011) "Prediction and Explanation in Historical Natural Science," *British Journal of Philosophy of Science*, 62, pp. 551-582.

D2L and Email

Class information and handouts will be posted on D2L. You'll be sent class announcements through email, and the email account used will be the one you gave the University Registrar. So please check that account.

IMPORTANT DEPARTMENTAL, FACULTY AND UNIVERSITY INFORMATION

Academic Honesty

Cheating or plagiarism on any assignment or examination is regarded as an extremely serious academic offense, the penalty for which will be an F on the assignment or an F in the course, and possibly a disciplinary sanction such as probation, suspension, or expulsion. See the relevant section K.5 on 'Academic Misconduct' in the current University Calendar <http://www.ucalgary.ca/pubs/calendar/current/k-5.html>.

Intellectual honesty requires that your work include adequate referencing to sources. Plagiarism occurs when you do not acknowledge or correctly reference your sources. If you have questions about correct referencing, consult your instructor.

Academic Accommodation

The student accommodation policy can be found at: ucalgary.ca/access/accommodations/policy.

Students needing an Accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

Students needing an Accommodation based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their instructor.

D2L Help

Desire2Learn is UCalgary's online learning management system. Important information and communications about this course may be posted on D2L. Go to <https://ucalgary.service-now.com/it> for help.

General Academic Concerns and Program Planning

Have a question but not sure where to start? The Arts Students Centre is your information resource for everything in the Faculty of Arts. Drop in at SS102, call 403-220-3580, or email ascarts@ucalgary.ca. Advisors in the ASC can also provide assistance and advice in planning your program through to graduation. Visit the Faculty of Arts website at <https://arts.ucalgary.ca/advising> for detailed information on common academic concerns

Advice on Philosophy Courses

You may find answers to your more specific questions about a philosophy degree on the Department of Philosophy's website <http://phil.ucalgary.ca>, or contact one of Philosophy's Undergraduate Advisors. David Dick – Undergraduate Program Director (dgdick@ucalgary.ca), Megan Delehanty – Honors Advisor (mdelehan@ucalgary.ca) or Allen Habib (anhabib@ucalgary.ca).

Registration Overload/Prerequisite Waivers

If you are seeking to register in a Philosophy course that is full or to get permission to waive the prerequisites for a course, email the Philosophy Department Undergraduate Program Administrator (UPA), Rebecca Lesser (rebecca.lesser@ucalgary.ca). Include the specific course information and your UCID number in your request.

Writing

All written assignments (including, although to a lesser extent, written exam responses) will be assessed at least partly on writing skills. Writing skills include not only surface correctness (grammar, punctuation, sentence structure, etc.) but also general clarity and organization. Research papers must be properly documented. Students are also encouraged to use Writing Support Services and other Student Success Centre Services, located on the 3rd floor of the Taylor Family Digital Library. Writing Support Services assist with a variety of assignments, from essays to lab reports. Students can book 30-minute one-on-one appointments online, sign up for 15-minute drop-in appointments, and register for a variety of writing workshops. For more information on this and other Student Success Centre services, please visit www.ucalgary.ca/ssc.

Protection of Privacy

The University of Calgary is under the jurisdiction of the provincial Freedom of Information and Protection of Privacy (FOIP) Act. 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 or teaching assistant.

Internet and Electronic Communication Devices

The instructor reserves the right to establish course policies regarding the use of devices such as laptops, tablets, and smartbooks. If allowed, these devices must be used exclusively for instructional purposes and must not cause disruption to the instructor or to fellow students. Cell phones and paging devices should be set to silent mode during lectures. Audio or video recording of lectures is not permitted without the written permission of the instructor. Students violating this policy are subject to discipline under the University of Calgary's Non-Academic Misconduct policy.

Emergency Evacuation:

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at <http://www.ucalgary.ca/emergencyplan/assemblypoints>. Please check this website and note the nearest assembly point for this course.

Other Helpful Contacts

- Safewalk and Campus Security: 403-220-5333.
- Faculty of Arts Student Representatives: 403-220-6552, arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
- Student Union: <https://www.su.ucalgary.ca/>; 403-220-6551.
- Student Ombudsman: <http://www.ucalgary.ca/provost/students/ombuds>
- Campus Mental Health Strategy: <https://www.ucalgary.ca/mentalhealth/>