



UNIVERSITY OF CALGARY
FACULTY OF ARTS
Department of Philosophy

PHIL 467 Lect 01
Problems in the Philosophy of Science
Winter Term 2023

Tuesday & Thursday 2:00 pm – 3:15 pm and SS 12

COURSE OUTLINE

Instructor: Marc Ereshefsky

Office: SS 1204

Office Phone: (403) 220-3162

Email: ereshefs@ucalgary.ca

Office Hours: Tuesday 12:00-1:00 pm, Thursday 11:00 am- 12:00, & by appointment

Course Description

Philosophers tend to think that the acceptance or rejection of scientific hypotheses should be based solely on empirical adequacy and such virtues as simplicity and generality. Scientific hypotheses should not be accepted or rejected on the basis of social or ethical values. This approach to science is called the 'Value Free Ideal.' In the last 30 years, some philosophers have challenged the Value Free Ideal and have argued that values do and should affect a scientist's acceptance or rejection of hypotheses. We begin the course by looking at arguments for and against the Value Free Ideal. Then we turn to the question, if non-epistemic values (that is, ethical and political values) should affect the selection of scientific hypotheses, which non-epistemic values should affect that that selection? We might think that scientists' racist views should not cause scientists to choose racist theories. On the other hand, we might think that feminist views should cause scientists to reject androcentric theories. Determining when moral and social values should affect the acceptance or rejection of a hypothesis, as we will see, is a pressing and controversial issue.

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.

6 units from **Philosophy 201, 264, 275, 279, 361, 367, 377, 395.**

<https://www.ucalgary.ca/pubs/calendar/current/philosophy.html#10449>

Course Objectives/Learning Outcomes

- Knowledge of a central area of philosophical inquiry –philosophy of science.
- Ability to identify and articulate questions for discussion and investigation.
- Ability to critically digest, interpret, and analyze complex sources.
- Ability to write a convincing argument that takes adequate account of alternative positions.
- Ability to engage in constructive, respectful, oral, and written argumentation.
- Ability to use feedback about one's work to improve one's arguments and writings.

Required Readings

We will use two types of sources for this course. One is a textbook that gives an overview of the course's topic. That textbook is Kevin C. Elliott's *Values in Science*, Cambridge University Press, June 2022. You can access this book and download chapters from it by going to the University of Calgary Library and finding the e-book version of this text. There are also paperback copies of the book available at the University of Calgary Bookstore. It is a small book and sells for about \$23.

All other readings for the course can be found in philosophy journals or anthologies through the University of Calgary Library website. A list of readings and bibliographic information can be found in the Content section of our course's D2L page.

Course Assessment and Evaluation

Written Preparations

- 6 written preparations are required. Each preparation should contain a one-sentence question from a reading we are discussing in class. In a different paragraph, provide 6 to 8 sentences explaining why you are raising the question and the context of the question.
- Samples of written preparations can be found on D2L.
- The question may be remedial, seeking an account of an important claim or argument in the reading that you could not follow. Or the question could be more critical in nature, alluding to a weakness in the paper. Or the question could be probing, identifying an issue that is raised by the reading or a possible implication of the reading.
- Each written preparation must be handed in before we start discussing an article in class. Please submit written preparations to the appropriate D2L Drop boxes. No preparations will be accepted after we start discussing an article. So, you must submit your written before the class session we discuss the reading that your written preparation is about.
- Written preparations need to be double-spaced.
- You can hand in more than 6 written preparations. For each additional preparation beyond 6, your lowest grade for an earlier preparation will be replaced with a higher additional preparation grade.
- The class will be divided into two groups. One group of students will be required to submit their individual written preparations one week, and the other group of students will be required to submit their written preparations the next week. This pattern will occur during the whole semester.
- A list saying which students need to hand in their written preparations in which weeks will be posted on D2L in the Content section.

Papers

- Paper topics will be given two to three weeks before a paper is due. Topics will draw from class readings and discussion. Paper 1 will have a maximum word length of 2100 words (including footnotes but not references). Paper 2 will have a maximum word length of 3000 words (including footnotes but not references). Details of the paper assignments will be given in class, as well as rubrics and tips for writing these papers. Papers will be submitted to the appropriate D2L Dropbox. Suggested topics will be given for both Paper 1 and 2. But for Paper 2 you will also have the opportunity to suggest your own topic.

Reading Introduction Presentations

- Students will be organized into small groups. Each group will give a brief presentation that introduces a reading to the class. These presentations should be between 8 and 12 minutes, but no longer than 15 minutes in length. The presentation should explain the problem that the author is writing about and what the author suggests for dealing with that problem. No original content is needed in these presentations. Just a simple and clear description of a problem the author is addressing, why the author thinks that problem should be addressed, as well as a simple exposition of how the author goes about addressing that problem.
- It is important to keep in mind that the presentation time is limited, so a group does not have enough time to present much material concerning the reading in their presentation. So, a presentation should not aim to be a comprehensive introduction to a reading. The group will need to think about what are the important parts of the author's reading that could be introduced.

- Groups are encouraged to use PowerPoint slides or some such slides in their presentations. This will make their presentations easier to give and make it easier for the class to understand what is being presented.
- Groups will be graded on three factors of equal weight: Accuracy in representing what the reading's author says. The clarity of the group's presentation. How well their presentation is organized.

Participation

- The success of our class depends on class discussion. Every student should participate in class discussion. This does not mean that you need to enter the discussion at every class meeting. Students should contribute to at least half of our class meetings. The more voices heard in class, the better the discussion. You may feel like you have nothing to contribute, but even pointing out that you are confused about something in the reading or discussion is a contribution.
- This class will succeed only if everyone feels like they belong and are free to ask questions and participate in discussions. This will require the mindfulness of each of us. So please be respectful, positive, and constructive in your participation in the course.

Here is a schedule for when assignments are due and their grade values

Written Preparations		6 X 3 points
Reading Introduction Presentations		3 points
Paper 1	Saturday, March 4, midnight.	30 points
Paper 2	Saturday, April 15, midnight	45 points
Class Participation		4 points

- There is no registrar scheduled exam
- No single assignment is required to pass the course. Your course grade will be determined on the assignments that you completed.
- No late assignments will accepted without an appropriate excuse. Please talk to Marc as soon as you can if you have a problem meeting a deadline.
- 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

D2L AND EMAIL

Class information will be posted on D2L. You'll be sent class announcements through your U Calgary email account. Please check that account.

CITATION AND BIBLIOGRAPHY INSTRUCTIONS

- Marc is not picky about which citation and bibliographic style you use, but you must use one of them. Feel free to use the APA (American Psychological Association) Citation style, or the MLA (Modern Languages Association) Citation style, or the Chicago Manual style. Or you could use the following method for listing articles and books in your bibliography.
 - If you are citing one of our class readings, please cite the versions referred to on D2L.
 - You can cite other authors beyond our course readings, but that is not required.
 - Whenever you quote someone, provide the source and page numbers from that source. Here's an example: Dr. Black writes, "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, books, and websites 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 website.

IMPORTANT DEPARTMENTAL, FACULTY AND UNIVERSITY INFORMATION

Academic Accommodations

It is the student's responsibility to request academic accommodations according to the University policies and procedures. The student accommodation policy can be found at ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf.

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: ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf. Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to their instructor.

Absence or Missed Course Assessments

Students who are absent from class assessments (tests, participation activities, or other assignments) should inform their instructors as soon as possible. If the reason provided for the absence is acceptable, instructors may decide that any arrangements made can take forms other than make-up tests or assignments. For example, the weight of a missed grade may be added to another assignment or test.

Student Support and Resources

Full details and information about the following resources can be found at ucalgary.ca/current-students/student-services

- Wellness and Mental Health Resources
- Student Success Centre
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk

Academic Advising

If you are a student in the Faculty of Arts, you can speak to an academic advisor in the Arts Students' Centre about course planning, course selection, registration, program progression and more. Visit the Faculty of Arts website at <https://arts.ucalgary.ca/current-students/undergraduate/academic-advising> for contact details and information regarding common academic concerns.

For questions specific to the philosophy program, please visit arts.ucalgary.ca/philosophy. Further academic guidance is available by contacting Jeremy Fantl (Undergraduate Program Director ifantl@ucalgary.ca) or David Dick (Honours Advisor dgdick@ucalgary.ca).

Writing Assessment and Support

The assessment of all written assignments—and, to a lesser extent, written exam responses—is based in part on writing skills. This includes correctness (grammar, punctuation, sentence structure, etc.), as well as general clarity and organization. Research papers must include a thorough and accurate citation of sources. Students are also encouraged to use Writing Support Services for assistance. For more information, and other services offered by the Student Success Centre, please visit ucalgary.ca/student-services/student-success.

Required Technology

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote, and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection.

Most current laptops will have a built-in webcam, speaker and microphone.

Responsible Use of D2L

Important information and communication about this course will be posted on D2L (Desire2Learn), UCalgary's online learning management system. Visit <https://ucalgary.service-now.com/it> for how-to information and technical assistance.

All users of D2L are bound by the guidelines on the responsible use of D2L posted here: <https://elearn.ucalgary.ca/commitment-to-the-responsible-use-of-d2l/>. The instructor may establish additional specific course policies for D2L, Zoom, and any other technologies used to support remote learning. Instructional materials, including audio or video recordings of lectures, may not be posted outside of the course D2L site. Students violating this policy are subject to discipline under the [University of Calgary's Non-Academic Misconduct policy](#).

Media Recording

Please refer to the following statement on media recording of students: https://elearn.ucalgary.ca/wp-content/uploads/2020/05/Media-Recording-in-Learning-Environments-OSP_FINAL.pdf

Academic Misconduct/Honesty

Cheating or plagiarism on any assignment or examination is 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. For information on academic misconduct and its consequences, please see the University of Calgary Calendar at ucalgary.ca/pubs/calendar/current/k.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 referencing, please consult your instructor.

University Policies

The Instructor Intellectual Property Policy is available at [ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Intellectual-Property-Policy.pdf](https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Intellectual-Property-Policy.pdf)

The University of Calgary is under the jurisdiction of the provincial Freedom of Information and Protection of Privacy (FOIP) Act, as outlined at <https://www.ucalgary.ca/legal-services/access-information-privacy>. The instructor (or TA) must return graded assignments *directly* to the student UNLESS written permission to do otherwise has been provided.

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Material-Protected-by-Copyright-Policy.pdf>) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>).