

PHIL 367 Lec 1 "Science and Philosophy" Summer Term 2018

Course Outline

Lectures: MW 12:00 – 14:45 in SB 146

Instructor: Soohyun Ahn

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Office Hours: Mondays and Wednesdays after class or by appointment

Course Description

This course is an introduction to some important issues in the philosophy of science. Given the impact of science on all areas of life and society, it is critical to reflect on how to characterize science and what role science should play in today's society. We will examine philosophical discussions about the nature of science, the objectivity of science, and the role of values in science.

Prerequisites: None

Course Learning Outcomes

By the end of the course, successful students will be able to:

- Explain major issues in the philosophy of science, including the demarcation problem, the role of objectivity in science, feminist philosophy of science, and the role of values in science.
- Construct their own position on various issues in the philosophy of science, such as the proper role of science in our society, by applying major concepts and relevant criteria studied in the course
- Communicate effectively with peers through discussion and written reports
- Write a coherent philosophical essay regarding philosophy of science issues

Required/Recommended Texts (including electronic resources):

Readings and additional materials will be posted on via D2L for this class.

All readings are available through the University of Calgary Library website or other online sources.

Topics and Readings

What is Science?

"Science: Conjectures and Refutations" -Karl Popper

"Science and Pseudoscience" -Imre Lakatos

"Why Astrology Is a Pseudoscience" —Paul Thagard

"Creation Science Is Not Science" - Michael Ruse

Rationality, Objectivity and Values

"Objectivity, Value Judgment and Theory Choice" -Thomas Kuhn

[&]quot;Gender and the Biological Sciences" -Kathleen Okruhlik

Observation and Scientific Realism

"Do Sub-Microscopic Entities Exist?" –Stephen Toulmin

"The Ontological Status of Theoretical Entities"-Grover Maxwell

Course Assessment

• Quizzes (15%, 3 points each)

Throughout the course of the semester, there will be five in-class quizzes. They are designed so that if you have done the reading, you should be able to answer them easily. Quizzes will be held at the start of class without prior notice.

• <u>Discussion Question Preparations</u> (15%, 3 points each)

Five discussion question preparations are required. These questions will provide a basis for class discussion. Each preparation should contain a single sentence statement of your question. The preparation should also contain a four to six sentence paragraph explaining why you are raising that question and why your question is important. Bring a hardcopy to class the day we discuss the reading. No preparations will be accepted once we start discussing the reading. If there are two assigned readings for one class, you may only submit one question – not two.

• Take-Home Exam (25%)

Exam sheets will be given on Wednesday, July 25th / Due on Monday, July 30th.

• Term Paper and Group Work (45%)

o Rough Draft Paper (5%)

You should submit a rough draft paper electronically via D2L by 11:59 pm on **August 6th**. The draft paper should be at least 4 pages in length. After collecting all the draft papers, I will distribute them to you via email. Each one of you will receive 3-4 drafts of your peers on **August 7th**. That means, the class will be divided into groups of 3-4 members.

o <u>Written Preparation for Group Discussion</u> (10%)

Once you receive drafts of your peers on **August 7**th, you should read all the papers and reflect on them. Then write as precisely as you can what you take to be the main point of each paper. Also provide what you take to be the strengths of the papers and any points that can be improved. You are required to submit written preparations on **August 13**th. Based on these preparations, you will review and discuss your paper with your group members. The aim of the group discussion is to help each other write better papers.

o Final Paper (30%)

The final paper will be 6-8 pages in length (max. 2,500 words).

More information will be handed out and discussed during the class.

You are welcome to see me to discuss your paper.

The final paper is due via D2L by 11:59 pm on August 20th.

• Final grades will be awarded as follows:

96 - 100 = A+	80 - 84 = B+	65 - 69 = C+	50 - 54 = D+
90 - 95 = A	75 - 79 = B	60 - 64 = C	45 - 49 = D
85 - 89 = A-	70 - 74 = B-	55 - 59 = C-	0 - 44 = F

[&]quot;How Values Can Be Good for Science" -Helen Longino

[&]quot;Dismantling the Divide between Indigenous and Scientific Knowledge" -Arun Agrawal

[&]quot;Arguments Concerning Scientific Realism" -Bas van Fraassen

- Class attendance is encouraged for success.
- An indigenous knowledge expert is scheduled to give a guest lecture.
- No single assignment is required to pass the course.
- Note that there will be **no registrar-scheduled final exam** for this course.

Policy on Late Assignments

No make-up exams are permitted unless a medical note is provided and/or permission is granted by the instructor prior to the set date. Without an acceptable excuse, penalties for late assignments will be a half letter grade for each day the assignment is late, to a maximum of the equivalent of 4 full letter grades. Missing assignments receive a zero.

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. Jeremy Fantl (jfantl@ucalgary.ca), Allen Habib (anhabib@ucalgary.ca), Megan Delehanty (mdelehan@ucalgary.ca).

Registration Overload/Prereq Waivers

If you are seeking to register in a Philosophy course that is full or to get permission to waive the prereqs for a course, email the Department Manager, Tram Nguyen (tram.nguyen1@ucalgary.ca). Include the specific course information and your UCID number in your request.

Writing

This course will include written assignments. 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, arts1@su.ucalgary.ca, arts1@su.ucalgary.ca, arts1@su.ucalgary.ca, arts1@su.ucalgary.ca, arts1@su.ucalgary.ca, arts1, <a href="mailto:
- 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/