

PHIL 482/673 Philosophy of Science
Fall 2008

Time and location: T.B.A. in HH357

Instructor: Dr. Doreen Fraser

E-mail: dlfraser@uwaterloo.ca

Office: HH330

Office Hours: T.B.A.

Course Description:

Philosophy of science is the study of the epistemological and metaphysical issues raised by science. To what extent does our best science constitute knowledge? How is our scientific knowledge justified? What (if anything!) does our best science reveal about what reality is like? We will investigate these questions by focusing on several topics of debate in the philosophy of science literature. The first part of the course will be devoted to a historical introduction to some important epistemological issues. We will also study some contemporary views on these issues. The second part of the course will concern the nature of natural laws. The final topic will be the realism–anti-realism debate.

Readings

There is no required text for this course. The readings that are not accessible online will be made available in Vicki's office (HH365) for photocopying.

Expectations

In addition to the coursework requirements outlined below, it is expected that students will complete the readings prior to the class for which they are assigned. As usual, students are expected to attend class and to participate in class discussions.

Coursework

See attached sheet.

Note for Students with Disabilities

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

Academic Offences

As per Faculty of Arts policy,

Academic Integrity: in order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor,

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academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>

Additional resources for avoiding academic offences can be found on the Faculty of Arts web page:

www.arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

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Evaluation for Graduate Students

One presentation (worth 20% of final grade) plus one term paper (worth 80% of final grade)

Presentation

Present a portion of the week's readings to the class and guide the class discussion. Devote a **maximum** of 15 minutes to your presentation. It is not necessary to summarize the whole reading; focus your attention on passages that particularly interest, confuse, or bother you. Generate a list of questions (e.g., about arguments that you find unpersuasive or passages that you find confusing) which will provide a starting point for the class discussion. By the end of the second class, tell me which reading you will cover.

Term Paper

Choose a topic related to an issue covered in the course. An outline of your paper topic (i.e., a one to two page description of the question you want to address and the approach that you want to take and possibly also a bibliography) is due in class **the week of November 10**. The term paper may be a maximum of 5,000 words (i.e., 20 pages doublespaced) and is due on **Friday, December 12 at 4:30 p.m.** You may either submit it to me by e-mail (in some standard file format) or hand in a paper copy to Vicki in HH365. Late term papers will be subject to penalties (unless, of course, there are extenuating circumstances such as serious illness or death in the family, for which documentation may be requested).

Your term paper should not be exclusively expository; part of the paper should be devoted to original argument or analysis (e.g., an argument for a position in a debate or an argument against a position that has been taken in the literature).

Note that Christine Jewell is the philosophy subject librarian at the Dana Porter library. She is happy to answer your questions and direct you to appropriate resources.

Evaluation for Undergraduates

Choose one of two options:

Option 1: Presentation plus term paper

(Presentation worth 20% of final grade and term paper worth 80% of final grade)

Presentation

Present a portion of the week's readings to the class and guide the class discussion. Devote a **maximum** of 15 minutes to your presentation. It is not necessary to summarize the whole reading; focus your attention on passages that particularly interest, confuse, or bother you. Generate a list of questions (e.g., about arguments that you find unpersuasive or passages that you find confusing) which will provide a starting point for the class discussion. By the end of the second class, tell me which reading you will cover.

Term Paper

Choose a topic related to an issue covered in the course. An outline of your paper topic (i.e., a one to two page description of the question you want to address and the approach that you want to take and possibly also a bibliography) is due in class **the week of November 10**. At some point, you should come talk to me about relevant readings. The term paper may be a maximum of 4,000 words (i.e., 15 pages doublespaced) and is due on **Friday, December 12 at 4:30 p.m.** You may either submit it to me by e-mail (in some standard file format) or hand in a paper copy to Vicki in HH365. Late term papers will be subject to penalties (unless, of course, there are extenuating circumstances such as serious illness or death in the family, for which documentation may be requested).

A term paper should not be exclusively expository; part of the paper should be devoted to original argument or analysis (e.g., an argument for a position in a debate or an argument against a position that has been taken in the literature).

Note that Christine Jewell is the philosophy subject librarian at the Dana Porter library. She is happy to answer your questions and direct you to appropriate resources.

Option 2: Short paper plus term paper

(Short paper worth 20% of final grade and term paper worth 80% of final grade)

Short Paper

Write a short paper of 2-3 pages, doublespaced. The purpose of the short paper is to engage with one of the readings assigned in the course. For example, this could involve challenging an argument that you find unpersuasive or expanding upon a bit of text that you find puzzling. It is not necessary to discuss the reading in its entirety; you may focus on a small section. The paper should not be exclusively expository; it should contain some original argument or analysis. The short paper is due at the beginning of the class for which the reading it addresses has been assigned. If you will not be able to attend class, you may e-mail me your short paper as an attachment (dlfraser@uwaterloo.ca).

Term paper

See above, under Option 1.