PHIL 356 A01 - Fall 2017
Philosophy of Science

Instructor: Eric Hochstein
Time: Monday/Wednesday/Thursdays 2:30 PM – 3:20 PM
Place: COR B111
Office Hours (in Clearihue B330)**:** Thursday, 3:30-5:30 pm; and by appointment
Email: eghochst@gmail.com

Description: What is the goal of science? When we engage in science, what is it exactly we're trying to do? Are we in pursuit of truth? Understanding? The fundamental laws of nature? What happens when pursuing one of these goals is directly at odds with pursuing another? In this course, we will examine the different sorts of aims and goals that scientists pursue, and the philosophical implications that follow from how scientists try to pursue them. In some cases, we will see that scientific practice may not be as dedicated to some of these goals as has traditionally been thought. In other cases, we will see that scientific practice may force us to radically reinterpret what we thought we were doing when we were pursuing such goals.

Structure: The course comprises three lectures (50min) per week, the contents of which will be based on the course readings. The course will proceed primarily through lectures and discussions.

Readings for the class will all be uploaded onto the course website.

Evaluation: The course will be graded as follows:

- Attendance and Class Participation, worth 10%
- 1 in-class mid-term worth 20%
- 2 term papers worth 20% and 25% (3-6 pages double-spaced each) ;
- A final examination worth 25%.

The term papers are due in class, **in hard copy**, on the announced deadline.

Important to Note: It is expected that students will prepare for and attend class regularly. Students are encouraged to consult the instructor with any problems or concerns about the course **early** in the semester.

Tentative Schedule of Readings:

<u>Week 1 (September 6 & 7): Introduction and Basics</u>
No Readings for This Week

<u>Week 2 (September 11, 13 & 14): Is the goal of science to provide explanations?</u>
Readings:
Carnap, R. "The Value of Scientific Laws"
Craver, C. "When Mechanistic Models Explain"

Week 3 (September 18, 20 & 21): Is the goal of science to identify fundamental laws?
First Term Paper Assigned September 18st
Readings:
Cartwright, N. "Do the Laws of Physics State the Facts?"
Mitchell, S. "Pragmatic Laws"

Week 4 (September 25, 27 & 28): Is the goal of science to provide true descriptions of the world?
Readings:
Weisberg, M. "Three Kinds of Idealization"
Potochnik, A. "The Diverse Aims of Science"

Week 5 (October 2, 4 & 5): Is the goal of science to provide understanding?
First Term Paper Due Oct 4th
Readings:
Schacter, D. & Addis, D. "The ghosts of past and future"
Churchland, P.S. "Reduction and the neurobiological basis of consciousness"

Week 6 (October 11 & 12): Is the goal of science to identify natural kinds?
Classes Cancelled on Monday, October 9th.
Readings:
Putnam, H. "Is Semantics Possible?"
Griffiths, P. "Emotions as Natural and Normative Kinds"

Week 7 (October 16, 18 & 19): Is the goal of science to discover objective reality? (part 1)
Mid-Term Exam October 16th
Readings:
Mulgrave, A. "The Ultimate Argument for Scientific Realism"
Laudan, L. "A Confutation of Convergent Realism"

Week 8 (October 23, 25 & 26): Is the goal of science to discover objective reality? (part 2)
Second Term Paper Assigned Oct 23th
Readings:
Daston, L. "Objectivity and the Escape from Perspective"
Longino, H. "Beyond "Bad Science": Skeptical Reflections on the Value-Freedom of Scientific Inquiry"

Week 9 (October 30, November 1 & 2): Is the goal of science to help people?
Readings:
Tekin, S. "Against Hyponarrating Grief: Incompatible Research and Treatment Interests in the DSM-5"
Weaver, S. "The Harms of Ignoring the Social Nature of Science"

Week 10 (November 6, 8 & 9): Is the goal of science unification?
Second Term Paper Due November 9th
Darden, L. & Maull. "Interfield Theories"
Dupré, J. "The Disunity of Science"

Week 11 (November 13, 15 & 16): Reading Week
No classes this week

Week 12 (November 20, 22 & 23): Spill over and Review
No additional readings

Note on Avoidance of Academic Offenses:

All students registered in the course are expected to know what constitutes an academic offence, to avoid committing academic offenses, and to take responsibility for their academic actions. When the commission of an offense is established, it will be acknowledged by disciplinary penalties. If you need help in learning how to avoid academic offenses such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your course instructor for guidance. You can find the university's Policy on Academic Integrity here:

http://web.uvic.ca/calendar2017-09/undergrad/info/regulations/academic-integrity.html

If you are seeking editing help, please note that the university has recently adopted a strict view about seeking the help of others for editing. They say (this can be found in the link above):

> An editor is an individual or service, other than the instructor or supervisory committee, who manipulates, revises, corrects or alters a student's written or non-written work.
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> The use of an editor, whether paid or unpaid, is prohibited unless the instructor grants explicit written authorization. The instructor should specify the extent of editing that is being authorized. Review by fellow students and tutoring that do not include editing are normally permitted.

Note for students with disabilities:

The Resource Centre for Students with a Disability (http://www.uvic.ca/services/rcsd/) is a fantastic resource that collaborates with all academic departments to help 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 them at the beginning of each academic term.