

Institute for the History & Philosophy of Science & Technology
University of Toronto, St. George Campus
Fall 2016

HPS 350 Topics in Philosophy of Science: Social Epistemology of Science

Time: Thursday 10:00am–12:00pm

Location: VC206

Instructor: Chris Dragos

Office Hours: Thursday 12:15pm–1:15pm

Office Location: VC 321

Course Webpage: on Blackboard (<https://portal.utoronto.ca>)

Email address for this course: **sciencerevolution350@gmail.com**

Course Description:

Knowledge is generated in social contexts. Of course, that's uncontroversial. After all, there's a general scientific community and science is divided into smaller communities and structures: sub-fields, research teams, etc. The important issue is whether, and if so in what ways, social context is ever relevant for generating scientific knowledge. Is it ever relevant for how we distinguish between science and pseudoscience?

This course is named after Thomas Kuhn's famous book, *The Structure of Scientific Revolutions*, which has had a profound effect in many threads in the history, philosophy, and sociology of science. After we work through *Structure* in Unit 1, we will explore several 'post-Kuhnian' debates/threads in Unit 2. In Unit 3, we will focus on a different and recent approach: select issues in analytic social epistemology.

Required Texts:

- (1) Thomas Kuhn (2012), *The Structure of Scientific Revolutions: 50th Anniversary Addition* (University of Chicago Press).
- (2) Additional readings on Blackboard.

Evaluation

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| (1) Précis..... | 20%..... | Due Oct. 17 (11:59pm) |
| (2) Short Response Paper..... | 20%..... | Due Nov. 15 (11:59pm) |
| (3) Term Paper..... | 40%..... | Due Dec. 6 (11:59pm) |
| (4) Participation..... | 20% | |

Participation: This will be a discussion-based, seminar-style class. Each student will provide a (roughly) 10-minute synopsis of one of the readings for the class, and then offer a question to stimulate class discussion. These presentations, plus general class participation, will determine the participation grade.

Blackboard: Materials for the course will be available on Blackboard. All announcements will be through Blackboard. It is your responsibility to check the Blackboard page on a regular basis and to keep up-to-date with the course. It is your responsibility to ensure that you are receiving email that is sent out through Blackboard.

Email Policy: All emails for this course should be directed to **sciencerevolution350@gmail.com**, and should be sent from your University of Toronto email account. Emails will generally be answered within 48 hours. However, I may *not* answer emails if (1) the relevant information is available on the course webpage or syllabus, or if (2) the question is best addressed during class or office hours (e.g. a detailed philosophical question).

Turnitin.com: Students will be required to submit their course essays to turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the turnitin.com service are described on the turnitin.com website.

Extensions and Late Papers: Late assignments will be penalized 5% per day, unless (a) prior arrangements have been made with me **by email** for an extension or (b) there is a medical or family emergency (in which case documentation may be required). **Plan ahead:** you may request extensions **by email** up until 48 hours before assignments are due; after that, extensions will be granted only for illness or family emergencies.

Accessibility: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. Accessibility Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations: located at 455 Spadina Ave., 4th Floor, Suite 400; phone: 416.978.8060; email: accessibility.services@utoronto.ca.

Academic Dishonesty: Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/>).

Copyright in Instructional Settings: If a student wishes to record or reproduce lecture presentations, course notes, or other materials provided by the instructor, the student must obtain the instructor's consent beforehand. Otherwise reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.

Schedule of Topics & Readings:

NOTES:

- (1) **This schedule may change.** Any changes will be announced on Blackboard.
- (2) You are expected to have the readings completed **prior** to class.
- (3) Readings to be provided on Blackboard are marked with an asterisk *.

Sept. 15: Housekeeping & Preview

Sept. 22: The Received View (concerning science vs. pseudoscience)

*Ayer, *Language, Truth, & Logic*, ch.1.

*Popper, *Conjectures & Refutations*, pp.33-39.

*Kuhn, "Logic of Discovery or Psychology of Research."

Unit 1: Structure

Sept. 29: Normal Science I

Kuhn, chs.2-3.

Oct. 6: Normal Science II

Kuhn, chs.4-5.

Oct. 13: Anomaly & Crisis

Kuhn, chs.6-8.

[Oct. 17 @11:59pm: Précis Due.]

Oct. 20: Revolution

Kuhn, chs.9-11.

Oct. 27: Progress?

Kuhn, chs.12-13.

Unit 2: The Sociology of Scientific Knowledge

Nov. 3: Back to Science vs. Pseudoscience

*Lakatos (1977), "Science and Pseudoscience."

*Thagard (1978), "Why Astrology is a Pseudoscience."

[Nov. 7: Drop Deadline.]

Nov. 10: The Strong Programme in the Sociology of Scientific Knowledge

*Barnes, Bloor, and Henry (1996), *Scientific Knowledge: A Sociological Analysis*, chs.1-2.

[Nov. 15 @11:59pm: Short Response Paper Due.]

Nov. 17: The Strong Programme (continued)

*Barnes, Bloor, and Henry (1996), *Scientific Knowledge: A Sociological Analysis*, ch.3

*Bloor (1991), *Scientific Knowledge: A Sociological Analysis*, 2nd Ed., pp.3-7.

*Lewens (2005), "Realism and the Strong Program."

Unit 3: Select Topics

Nov. 24: Epistemic Dependence

*Hardwig, "Epistemic Dependence."

*Miller, "Why (Some) Knowledge is the Property of a Community and Possibly None of its Members."

Dec. 1: Interdisciplinary Collaboration

*Staley, "Evidence and Justification in Groups with Conflicting Background Beliefs."

*Andersen & Wagenknecht, "Epistemic Dependence in Interdisciplinary Groups."

[Term Paper Due]