

Western University

Department of Philosophy

Course Outline 2021-22

This course is an introductory course in the history of science and technology. We will explore the history of science and technology from the perspective of the history of philosophy.

Fall Term
Mondays 2:30-5:30 PM
Classroom 1 & %

Instructor: Francesca Vidotto Mail: fvidotto@uwo.ca
Office: PAB 210 and WIRB 7140
Office Hours: see Sign Up on the OWL course website
Zoom: <https://westernuniversity.zoom.us/my/fvidotto>

The narrative of the human pursuit of knowledge has traditionally excluded the voices that were not in power. In this course, we will focus on scientific and technical knowledge and on women. This is a rich case that gives us instruments to recognize the importance of diversity in science. The course is organized in two parts: the first historical and sociological, the second philosophical.

First, we will consider the historical and sociological contexts that have prevented women from accessing and producing scientific knowledge. The students will be introduced to a selection of remarkable women of science, from antiquity to our days. We will discuss the ground-breaking aspects of their work and the specificities of their experience as scientists. We will highlight how gender identity, race and economical background contribute to create different experiences. We will then discuss questions at the center of the feminist reflection on science: How biases manifest in scientific production? Does the gender of the knower make a difference? At the light of these questions, what does objectivity mean? We will discuss some of the answers these questions have been given in the field of feminist epistemology, the perspectives these answers opens for general epistemology, and the relation between these issues and current scientific research.

Course website

The course has an online website that can be accessed through the OWL platform. It is the student's responsibility to regularly check the OWL website for course material and to participate in the discussion forum. The main functions we will use on OWL site are:

- Course Readings: where you will be redirected to all course readings
- Dropbox: to share material with the instructor and with other students
- Forums: where weekly online discussions will take place throughout the course
- Messages: use the OWL email system to contact the instructor and your classmates
- Resources: for most of the supplemental materials

Communication

Office Hours

Audit

Students wishing to audit the course should consult with the instructor prior to the start of the course during the first week of classes.

Reccomandations

Students enrolled in this class should understand the level of autonomy and discipline required to be successful.

- Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
- Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
- Follow weekly checklists created on OWL or create your own to help you stay on track.
- Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
- Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
- Do not be afraid to ask questions. If you are struggling with a topic, check the online

Western Academic Policies and Statements

Department of Philosophy Policies

The Department of Philosophy Policies which govern the conduct, standards, and expectations for student participation in Philosophy courses is available in the Undergraduate section of the Department of Philosophy website at <http://uwo.ca/philosophy/undergraduate/policies.html>.

It is your responsibility to understand the policies set out by the Senate and the Department of Philosophy, and thus ignorance of these policies cannot be used as grounds of appeal.

Course Commitments

The last day of scheduled classes in any course will be the last day on which course assignments will be

Plagiarism Checking

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com <http://www.turnitin.com>.

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. Final grades on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark "bumping" will be denied.

Support Services

Students who are in emotional/mental distress should refer to [Mental Health@Western](mailto:MentalHealth@Western) for a complete list of options about how to obtain help. Immediate help in the event of a crisis can be had by phoning 519.661.3030 (during class hours) or 519.433.2023 after class hours and on weekends.

Reading list ~ This list is tentative and subject to change.

Week 2 - The science of difference

1. Tuana, N. (1988). The weaker seed: The sexist bias of reproductive theory. *Hypatia*, 3(1), 35-59.
2. Martin, E. (1991). The egg and the sperm: How science has constructed a romance based on stereotypical male-female roles. *Signs: Journal of Women in Culture and Society*, 16(31), 485-501.
3. Richardson, S. (2012). Sexing the X: How the X became the female chromosome. *Signs: Journal of Women in Culture and Society*, 37(4), 909-933.
4. Fausto-Sterling, A. (1993). The five sexes: Why males and females are not enough.
5. Fausto-Sterling, A. (2000). The five sexes revisited.

Optional/recommended

- ! Saini, A. (2017). *A difference at birth*. Inferior, Beacon Press, 49-73.
- ! Representations of eggs and sperm in popular culture: Woody Allen (1972)

! Article collection (2003) *Feminism inside the sciences*, *Signs, Journal of Women in Culture and Society*, 28 (2003):859-922

! Weasel, L. (2001). *Laboratories without walls: The science shop as a model for feminist community science in action*. In M. Mayberry, B. Subramaniam, & L. Weasel (Eds.), *Feminist science*

Week 9 - Value Theories

1. National Academy of Sciences (1993). Methods and values in science. In. S. Harding (Ed.), *Racial economy of science* (pp. 341-343). Bloomington: Indiana University Press.
2. Longino, H.

Week 11 - Neo-Materialism

1. Barad, K. (2003) Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter, *Signs* Vol. 28, No. 3, *Gender and Science: New Issues* (pp. 801-831)
2. Fraser, Nancy and Linda Nicholson, 1990, "Social Criticism without Philosophy," in Nicholson 1990.
3. Iris van der Tuin (2019) *New Concepts for Materialism: Introduction*
4. Fricker, M., "Feminism in epistemology: Pluralism without postmodernism"
5. Coole, D. and Frost, S. (2010) "Introducing the New Materialism" in *New Materialism. Ontology, Agency and Politics*, Duke University Press.

Optional/Recommended

! Barad, K. (2007) *Meeting the universe halfway: quantum physics and the entanglement of matter and meaning*