

THE UNIVERSITY OF WESTERN ONTARIO
Department of Philosophy

PHILOSOP 1030a
Understanding Science

INSTRUCTOR INFORMATION

Information including instructor contact details and course location can be found on the course Owl BrightSpace: <https://westernu.brightspace.com/>

PREREQUISITES

None

COURSE DESCRIPTION

This non-essay course is aimed both at non-science majors who want to gain an understanding of the place of science in our world and how it relates to other parts of our culture, and also at science students who want to gain an appreciation of the place of their discipline in the wider culture.

Science plays a central role in our lives. It is the source of new technological developments, and of information about safety and risks that are relevant to our decisions as individuals and as a society. Yet many people find science disquieting. There is a feeling that science destroys the wonder of nature. Moreover, many people mistrust what scientists tell them.

In this course we will dive into an investigation of the nature of science and its place in modern culture. Among the questions to be addressed are: What distinguishes science from non-science? How do scientists come to the conclusions that they do? Should we place our trust in science? How can we, as non-scientists, tell whether we should rely on what news reports tell us about the results of scientific studies?

LEARNING OUTCOMES

Students will become familiar with the various sources of information available, and develop skills for critically evaluating reports about scientific matters. They will learn the basics of scientific methodology, and will understand claims of statistical significance.

COURSE SCHEDULE

The course topics will be grouped into three modules:

- I. Communicating science: information, misinformation, and disinformation (4 weeks)
- II. Scientific reasoning (5 weeks)
- III. Understanding climate science and climate communication (3 weeks)

TEXTS

Assigned materials available on OWL Brightspace

METHOD OF EVALUATION

Students are required to attend class and participate in class discussion, and are responsible for all information conveyed in class. There is no attendance mark for class attendance.

Students are also required to attend weekly tutorials; tutorial attendance will be recorded, and an attendance mark for tutorials will be assigned.

There are two tests, a midterm test, held during class hour, on Monday, Oct. 28, and a final exam scheduled by the Registrar during the December exam period. Students who, for acceptable reasons, miss the midterm must contact their academic counsellor no later than 48 hours after the test, and preferably, if circumstances permit, before the test. There will be a make-up midterm at a time and date to be announced, approximately one week after the midterm.

Students are expected to be familiar with the policy on academic consideration:

https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf

There are four short assignments, worth 6 points each. Of the first three, we will drop the lowest grade; this means that the first three assignments are worth a total of 12 points. The fourth assignment is not optional. Requests for academic consideration for the first three assignments will be denied.

In addition, there will be two more substantive assignments, worth 9 and 15 points each.

Details of all assignments will be found on OWL Brightspace.

Tutorial participation:	3%
Assignments 1—3 (6% each; drop lowest)	12%
# 1 Internet research exercise, part 1 (due Sept. 23)	
# 2 Internet research exercise, part 2 (due Oct. 11)	
# 3 Evaluating a news article (due Oct. 23)	
Assignment 4: A simple experiment (due Nov. 13)	6%
Assignment 5: ChatGPT evaluation (due Nov. 6)	9%
Assignment 6: Evaluating a news source (due Nov. 27)	15%
Tests:	
Midterm (Oct. 28)	25%
Final (Take home, Dec. exam period, date TBA)	30%
	100%

DEPARTMENT OF PHILOSOPHY POLICIES

The Department of Philosophy policies that govern the conduct, standards, and expectations for student participation in Philosophy courses are available in the Undergraduate section of the Department of Philosophy website <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.

AUDIT

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

ELECTRONIC DEVICES

Students are permitted to bring laptops or other electronic devices to class for the purpose of taking notes. Use of these devices during class for purposes not related to the course is not permitted. Students who wish to record lectures must receive permission from the instructor; recording without permission is not permitted.

No aids are permitted for the exams. Electronic devices of any kind (including calculators, cell phones and smart watches) are not permitted.

STATEMENT ON THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (AI)

All assignments are to be your own work. You are permitted to use a spell checker or grammar software, but you are not permitted to use generative AI language modules such as ChatGPT. Submitting work that contains text generated by software counts as plagiarism and is an academic offence. If plagiarism or unauthorized AI use is suspected, the instructor will ask for research notes and/or drafts of assignments after the assignment has been submitted. Students must keep all notes and first drafts until the assignment is returned to them

ACCOMMODATION

Students seeking academic accommodation on medical grounds for any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade must apply to the Academic Counselling office of their home Faculty and provide documentation. Academic accommodation cannot be granted by the instructor or department. Documentation shall be submitted, as soon as possible, to the Office of the Dean of the student's Faculty of registration, together with a request for relief specifying the nature of the accommodation being requested. The UWO Policy on Accommodation for Medical Illness and further information regarding this policy can be found at

https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration.pdf

The Student Medical Certificate is available at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

ACADEMIC CONSIDERATION

Students may request academic consideration in cases of extenuating circumstances – that is, personal circumstances beyond the student's control that have a substantial but temporary impact on the student's ability to meet essential academic requirements.

1. Requests for academic consideration are made to the Academic Advising office of Faculty in which the student is registered.
2. Requests for academic consideration include the following components:

- a. Self-attestation signed by the student;
- b. Indication of the course(s) and assessment(s) relevant to the request;
- c. Supporting documentation as relevant

Requests without supporting documentation are limited to one per term per course.

Documentation for medical illness, when required, includes the completion of a [Western Student Medical Certificate \(SMC\)](#) or, where that is not possible, equivalent documentation, by a health care practitioner. Requests linked to examinations scheduled by the Office of the Registrar during official examination periods as well as practice laboratory and performance tests typically scheduled in the last week of term always require formal supporting documentation.

Policy on Academic Consideration – Undergraduate Students in First Entry Programs

RELIGIOUS ACCOMMODATION

Western's Policy on Accommodation for Religious Holidays can be found here:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf.

In the case of mid-term tests, notification is to be "given in writing to the instructor as early as possible, but not later than **one week** prior to the writing of the test".

COURSE ASSIGNMENT

The last day of scheduled classes in any course will be the last day on which course assignments will be accepted for credit in a course. Instructors will be required to return assignments to students as promptly as possible with reasonable explanations of the instructor's assessment of the assignment.

SCHOLASTIC OFFENCES

Scholastic offences are taken seriously, and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

Statement on the use of plagiarism-checking software

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>).

ACADEMIC ADVISING

Your Home Faculty's Academic Advising Office will support or refer whenever you have an issue that is affecting your studies, including information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters. Do not hesitate to reach out to them if you are struggling and unsure where to go for help.

Contact info for all Faculties is here: https://registrar.uwo.ca/faculty_academic_counselling.html

MENTAL HEALTH SUPPORT

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) 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 (24/7 availability).

GENDER-BASED AND SEXUAL VIOLENCE

Western University [is committed to reducing incidents of gender-based and sexual violence](#) (GBSV) and providing compassionate support to anyone who is going through or has gone through these traumatic events. If you are experiencing or have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at the following website: https://www.uwo.ca/health/student_support/survivor_support/get-help.html. To connect with a case manager or set up an appointment, please contact support@uwo.ca.