

**WESTERN UNIVERSITY  
DEPARTMENT OF PHILOSOPHY  
Undergraduate Course Outline 2018-19**

**Philosophy 2300G: Philosophy of Science**

**Winter Term**

**Class Times: M 1:30-2:30, W 1:30-3:30**

**Class Location: P&AB-34**

**Instructor: Gillian Barker**

**Office Hours: WIRB 7058, Times TBA**

**519-661-2111 x87747**

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**OVERVIEW**

What is science, and what is so special about it as a means of generating knowledge? Is there really an identifiable “scientific method” that all scientific research shares? What is the difference between a scientific hypothesis and a theory? If a scientific claim is “just a theory” does that mean we should not have confidence in it? What kinds of evidence give strong support to a scientific claim? Can scientific theories ever be given conclusive empirical proof? Does science make progress toward a single objectively true picture of the world, or are scientific truths relative to their broader cultural context? Do sciences really experience abrupt “paradigm shifts,” and what would this mean for how we think about our current scientific assumptions? Can multiple irreconcilable perspectives be useful by capturing different aspects of the world? Are science and religion incompatible?

These are among the core issues for philosophy of science. We will explore these and related questions through a combination of classic writings from the field, and real-world examples from the history of science and contemporary scientific debates.

**OBJECTIVES**

In addition to becoming familiar with basic issues and positions in philosophy of science, students will be expected to develop their ability to:

- Read carefully and with attention to context.
- Pursue research using both traditional and web-based resources.
- Represent opposing arguments fairly.
- Communicate these effectively.
- Argue respectfully with one another.
- Critically assess complex arguments (both orally and in writing).
- Work collaboratively in small-group activities.
- Develop their own positions and a better understanding of sometimes-controversial issues.

## **TEXTS**

*Philosophy of Science: A New Introduction* by Gillian Barker and Philip Kitcher, Columbia University Press.

*The Structure of Scientific Revolutions* by Thomas Kuhn, 4<sup>th</sup> edition. University of Chicago Press.

Both books are available in paperback through the Western Book Store. Additional material will be made available through OWL.

## **REQUIREMENTS**

### **1. Short assignments and quizzes, worth 20%**

We will use a variety of short assignments and quizzes to support active learning throughout the course. These will include short written assignments, in-class discussion-based activities, and quizzes.

### **2. Two essays, approximately 1250 words each, worth 20% each**

These are argumentative essays; each will give you the opportunity to defend your own position on one of the topics for this course. There will be a rubric for grading these papers that we will discuss.

### **3. Final exam, worth 30%**

### **4. Attendance and participation, worth 10%**

Each of the requirements is designed to help us achieve the goals for the course.

## **AUDIT**

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

## **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.

## **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 [http://uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

### **ACADEMIC 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 [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

### **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>.

### **SUPPORT SERVICES**

Registrarial Services <http://www.registrar.uwo.ca>  
Student Support Services <https://student.uwo.ca/psp/heprdweb/?cmd=login>  
Services provided by the USC <http://westernusc.ca/services/>  
Student Development Centre <http://www.sdc.uwo.ca/>

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> 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.