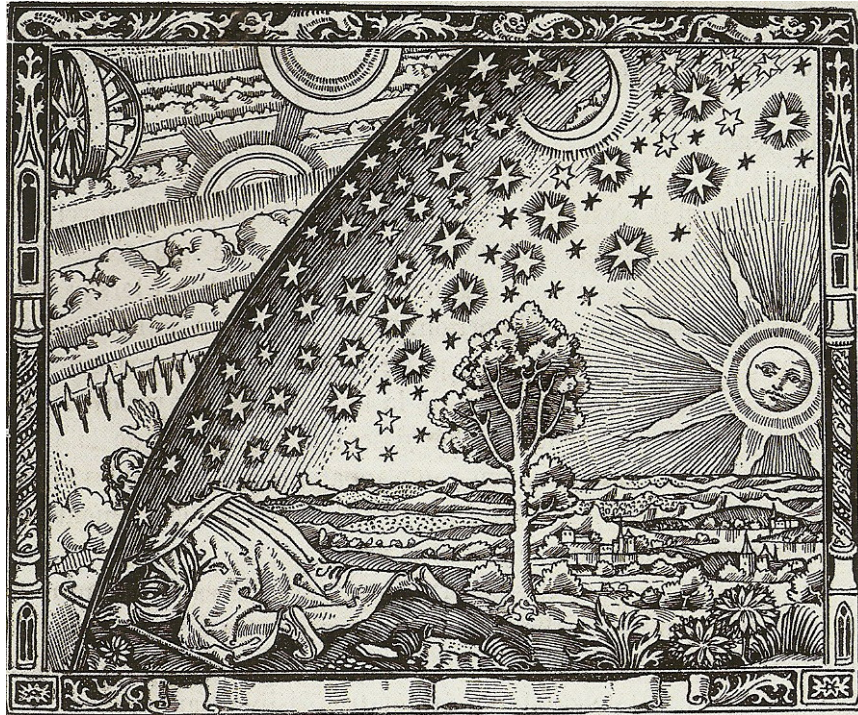


WESTERN UNIVERSITY  
DEPARTMENT OF PHILOSOPHY  
Undergraduate Course Outline 2018-19

Philosophy 2250: Introduction to Logic



Full Year  
Monday, Wednesday, Friday 11:30-12:20  
AHB 1B02

Instructor: Lorne Falkenstein  
Office Hours: MWF 10-11 am and 1-2 pm  
STVH 3141 519-661-2111 x 83453  
lfalkens@uwo.ca

**DESCRIPTION**

A study of modern, first-order propositional and predicate logic including identity and definite descriptions, with an introduction to modal and higher-order logic. Students will learn to identify the forms of claims and demonstrations and apply syntactic and semantic tests to determine the consistency and consequence of claims. The soundness and completeness of these tests will be demonstrated using mathematical induction and modern predicate semantics. More information is available from the course web page at [instruct.uwo.ca/philosophy/212/](http://instruct.uwo.ca/philosophy/212/). Access is by uwo e-mail log-in ID and password. In the case of a typo entering your log-in ID or password, please close and restart your browser before making a second attempt.

**TEXTS**

Lorne Falkenstein and Molly Kao, *Logic Works*. Available online at [instruct.uwo.ca/philosophy/212/](http://instruct.uwo.ca/philosophy/212/)

## **LEARNING OUTCOMES**

- be able to formalize demonstrations and claims made in ordinary English in the language of first order modal predicate logic with identity and descriptions
- be able to render such formalizations back into flowing English prose, given an interpretation of the variables
- be able to determine whether such formalizations are well formed
- be able to use trees and derivations to determine consequence/derivability, inconsistency/contradiction, and equivalence/interderivability
- be able to establish consequence, inconsistency, and equivalence by direct appeal to the semantics for first order modal predicate logic with identity and definite descriptions
- be able to identify models that establish non-consequence, consistency, and non-equivalence and explain why those models work
- be able to explain what it means for a decision procedure to be consistent, sound, complete, and decidable, and for a language to be compact, extensional, and expressively complete
- be able to identify the principal parts of a demonstration by mathematical induction and explain how they work together to establish a conclusion
- be able to identify some of the philosophical problems associated with the use of names and descriptions and with integrating modal with predicate logic

## **REQUIREMENTS**

|   |             |     |
|---|-------------|-----|
| Attendance as recorded by record of assignment completion and pick-up |             | 10% |
| Exam 1 – Chapters 1-3   | October 3   | 15% |
| Exam 2 – Chapters 4-6   | October 31  | 15% |
| Exam 3 – Chapters 7-9   | Exam period | 15% |
| Exam 4 – Chapter 10   | January 30  | 15% |
| Exam 5 – Chapters 11-13   | March 6     | 15% |
| Exam 6 – Chapters 15-18   | Exam period | 15% |

### Guidelines:

- There will be an assignment due for each second class.
- Answers on assignments should be surrounded by sufficient white space to permit insertion of comments.
- Except where answers are only one or two lines long, only one question should be answered on a page.
- Because mistakes made on earlier assignments can be repeated on subsequent ones, it is important to review returned assignments before preparing subsequent ones.
- Assignments are corrected, but not graded. To earn credit, assignments must be picked up in the following class.
- Assignments submitted late receive 50% credit; assignments picked up late lose 50% credit. Assignments submitted more than one class late receive no credit. Assignments not picked up within two classes from the due date are not retained.
- Assignments not submitted or picked up in the classroom are considered submitted or picked up late (drop box or office drop off or pick up is not an alternative)
- It is understood that students may not always be able to complete all assigned questions. In

such cases a representative sample of questions from each assigned exercise set should be completed. It is expected that all assigned questions will normally be answered.

- Doing multiple assignments at the same time is a good way to train yourself to keep making the same mistakes. Simultaneous submission of multiple assignments is prohibited.
- A 50% average on examinations is necessary to pass the course; it is also sufficient to pass 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/heprdwweb/?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.