



## PHIL\*2110 Formal Logic

Winter 2019

Section(s): C01

Department of Philosophy

Credit Weight: 0.50

Version 2.00 - January 01, 2019

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### 1 Course Details

#### 1.1 Calendar Description

This course studies the basic principles and techniques of formal logic. The analysis of the logical structure of sentences and arguments is explored, together with the fundamental principles of elementary sentential logic and quantification.

**Pre-Requisite(s):** 2.00 credits or (1 of PHIL\*1000, PHIL\*1010, PHIL\*1050)

#### 1.2 Course Description

This course introduces the basic principles and techniques of analyzing arguments formally. Topics to be covered include: translating natural language arguments into symbolic notation, testing validity using truth tables and interpretations, and deduction rules for sentential and predicate logic. This course is introductory and assumes no prior familiarity with formal logic and requires no special aptitude in math. **Note: it is very important to not fall behind on the material; the units are cumulative, with each new lesson building on the previous one, so you will need to keep up to speed to do well.**

#### 1.3 Timetable

Lectures: T/TH 11:30 – 12:50, MacKinnon 228

#### 1.4 Final Exam

Thursday, April 18, 8:30 – 10:30, Room TBA

*Exam time and location is subject to change. Please see WebAdvisor for the latest information.*

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## 2 Instructional Support

- **Instructor:** Karyn Freedman
  - **Email:** karynf@uoguelph.ca
  - **Phone:** 824-4120 x 53232
  - **Office:** 354 MacKinnon
  - **Office Hours:** Thursday, 1:00 – 3:00, or by appointment
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## 3 Learning Resources

### Text (required)

Virginia Klenk, *Understanding Symbolic Logic*, Pearson, 5<sup>th</sup> edition (note: this text is expensive to purchase, but there are a variety of options for renting it for the semester, including this one: <https://www.barnesandnoble.com/w/understanding-symbolic-logic-virginia-klenk/1100057588>).

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## 4 Learning Outcomes

### 4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. • *Identify* and *critically evaluate* arguments in a way that is clear and well-reasoned;
  2. • *Skillfully* use formal tools for sound justification and rational persuasion in predicate logic and propositional logic;
  3. • *Simplify* and *clarify* the central assumptions of arguments that are couched in specialized or complex vocabulary.
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## 5 Teaching and Learning Activities

DATE	TOPIC	READINGS
Jan 8	Class Mechanics; Introduction	Unit 1
Jan 10	Sentential Logic	Unit 2
Jan 15	Symbolizing English Sentences	Units 3 & 4
Jan 17	(cont'd) <b>quiz #1</b>	(cont'd)
Jan 22	WFFs	Unit 21
Jan 24	Truth Tables	Unit 5
Jan 29	Truth Tables	Unit 6
Jan 31	<b>Test #1</b>	
Feb 5	Proof Method	Unit 7
Feb 7	(cont'd) <b>quiz #2</b>	(cont'd)
Feb 12	Replacement Rules	Unit 8
Feb14	(cont'd) <b>quiz #3</b>	(cont'd)
Feb 19 & 21	<b>READING WEEK NO CLASSES</b>	
Feb 26	CP & IP	Unit 9
Feb 28	Predicate Logic	Unit 10
March 5	Quantifiers	Unit 11
March 7	<b>Test #2</b>	

March 12	Categorical Propositions	Unit 12
March 14	Symbolization for Predicate Logic	Unit 13
March 19	Quantifier Form	Unit 14
March 21	(cont'd) <b>quiz #4</b>	(cont'd)
March 26	Proofs in Predicate Logic	Unit 15
March 28	(cont'd) <b>quiz #5</b>	(cont'd)
April 2	Invalidity in Quantifier Logic	Unit 16
April 4	<b><i>Final Exam Review</i></b>	

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## 6 Assessments

**2 in-class tests (2 x 30%): 60%.** The first test will cover all the units preceding it; the second test will cover all the units completed after the first test.

- *Students who miss a test for medical or religious reasons will be given an opportunity to do a rewrite.*

**5 in-class quizzes (5 x 2%): 10%.** These quizzes will be given in the last 30 minutes of class, and will consist of a number of (unstarred) exercises from the Klenk book. You can earn a grade of 1/2 if you complete the quiz and get at least some of it right (that is, show decent comprehension of the material), or 2/2 if you complete the quiz and get most of it right (that is, show very good comprehension of the material). You will get a 0/2 if you don't do the quiz or get it entirely wrong.

**1 (cumulative) final exam: 30%.** This exam will cover all the material in the course, but the emphasis will be on the material we've studied since the 2<sup>nd</sup> test.

- *Students who are unable to write the final exam due to medical or religious reasons must follow the guidelines set out in the Undergraduate Calendar.*
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## 7 University Statements

### 7.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

### 7.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

### 7.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for course registration are available in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

### 7.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

### 7.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared

responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

More information can be found on the SAS website  
<https://www.uoguelph.ca/sas>

## 7.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

## 7.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

## 7.8 Resources

The Academic Calendars are the source of information about the University of Guelph's

procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

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