

ELEMENTARY FORMAL LOGIC

PHIL203 (A01)

Explores the fundamentals of good reasoning by means of symbolic techniques in both propositional and predicate logic. Students will learn to translate English sentences into logical notation, as well as how to use truth tables and derivations to demonstrate the validity of arguments.

PLACE/TIME ELL 167, Mon/Thu 1:00pm-2:20pm

INSTRUCTOR DR Mike Raven (✉ mike@mikeraven.net • 📧 mikeraven.net)

OFFICE HOURS • CLE B323 Mon/Thu 2:30-3:30pm, or by appointment.

ASSISTANT TBA (✉)

COURSESPACE 📧 coursespaces.uvic.ca/course/view.php?id=22326 (Consult for all official course documents.)

TEXTS Barker-Plummer, Barwise & Etchemendy, *Language, Proof and Logic* (2nd ed)

- Available in physical or digital form (📧 ggweb.gradgrinder.net/store).
- An unused registration ID is needed and obtained by buying the text new. (Used copies likely won't have a usable ID, and so should be avoided.)
- When registering, write your name as it appears on University records.

QUESTIONS Email questions about the content of the course to: logic.uvic@gmail.com

EVALUATION

GRADES The grade you earn is determined by the quality of your work in this course. The university's scale is used: **A+**>90 **A**89-85 **A-**84-80 **B+**79-77 **B**76-73 **B-**72-70 **C+**69-65 **C**64-60 **D**59-50 **F**<50

WORK ↗ **PROBLEM SETS (40%)**: 11 problem sets; lowest 1 dropped (4% each).

- Most problem sets are submitted online to Submit:
 - Problem sets may be submitted any time before their due dates.
 - Follow the problem set's instructions to submit files.
 - When submitting to Submit, use logic.uvic@gmail.com.
 - Submitted files are graded automatically by the GradeGrinder software.

☑ **CHECKPOINTS (20%)**: 20 reading comprehension quizzes; lowest 3 dropped (1.2% each).

- Complete these online at CourseSpace prior to the designated class.
 - Submissions are unlocked after the previous class ends.
 - Submissions are locked 30 minutes before the designated class starts.

◆ **EXAMS (40%)**: 2 cumulative in class exams (weighted comparably).

- Exam 1 will be Monday February 24; Exam 2 will be Thursday April 2.
- Read *Exam Study Guide* posted on CourseSpace.

GRACE POINTS A **grace point** can be used to delay a *problem set's* due date by 1 day. Each student begins with 5. Points can be used in any combination at the students' discretion (no justification needed). Points cannot be reused, traded, or earned.

- To use, click Add Text Message in Submit when submitting your problem set and write in the text box 'Using # grace points' (replace # with the number of grace points). *This is the only acceptable way to use grace points.*

LATENESS No work submitted after a due date will be accepted, except for appropriate accessibility reasons (see **ACCESSIBILITY**).

POLICIES

- CONDUCT** Enrolling binds you to a social contract with your instructor and classmates:
- **Be prepared.** Read the syllabus. Do the reading before class. Attend class.
 - **Be respectful.** In class, don't bully or distract.
 - **Be professional.** Check sources first (don't expect replies to questions answered by the syllabus). Follow etiquette. Allow time for replies.
- ACCESSIBILITY** Arrange accommodations with CAL. Other accommodation requests (e.g. extra credit, extensions, alternate/make-up work) will *not* be considered, except in extraordinary cases (instructor's discretion) and when both the request and documentation are received within 3 days of the due date.
- PRIVACY** Course documents are instructor's intellectual property. Do not distribute. Recordings permitted only with instructor's consent. Do not distribute.
- GUESTS** Guests permitted only with instructor's prior consent.
- INTEGRITY** Plagiarism and cheating are not tolerated. Ignorance is no excuse. Read: web.uvic.ca/calendar2019-09/undergrad/info/regulations/academic-integrity.html
Additionally, GradeGrinder checks all submissions for plagiarism. Read: ggweb.gradegrinder.net/gradegrinder/timestamps

SCHEDULE

Tentative: see website for updates.

PREDICATE LOGIC

JAN 6	• All course documents	
9	• Introduction, 1.1-1.3	
13	• Validity and Soundness, 2.1, 2.5	↗ DUE: Problem Set 1
16		
20	• Boolean Connectives, 3.1-3.3, 3.5-3.7	↗ DUE: Problem Set 2
23	• Conditionals, 7.1-7.2	
27	• Truth Tables, 4.1-4.4	↗ DUE: Problem Set 3
30		
FEB 3	• Formal Proofs: Boolean Connectives, 2.2-2.4, 6.1-6.6	↗ DUE: Problem Set 4
6		
10	• Formal Proofs: Conditionals, 8.2, 8.4	↗ DUE: Problem Set 5
13	• Catch-up and Review	
17	NO CLASS (READING BREAK)	↗ DUE: Problem Set 6
20	NO CLASS (READING BREAK)	
24	◆ Exam #1	

FIRST-ORDER LOGIC

27	• Introduction to Quantifiers, 9.1-9.6	
MAR 2		↗ DUE: Problem Set 7
5	• Multiple Quantifiers, 11.1-11.5	
9		↗ DUE: Problem Set 8
12	• Numerical Quantifiers, 14.1, 14.3	
16		↗ DUE: Problem Set 9
19	• Formal Proofs: Quantifiers, 13.1-13.3	
23		↗ DUE: Problem Set 10
26	• Formal Proofs: Numerical Quantifiers, 13.5,14.1-14.3	
30	• Catch-up and Review	↗ DUE: Problem Set 11
APR 2	◆ Exam #2	