

# Phil 203: Elementary Formal Logic

## Syllabus

Instructor: Dr. Audrey Yap ([ayap@uvic.ca](mailto:ayap@uvic.ca))

Office Hours: Tuesdays and Fridays 10 - 11:30am (sign up required)

Course Website: TBA

Lectures: Videos posted weekly on the course website.

Textbook: Abridged Version of <http://forallx.openlogicproject.org/> with PDF copy available through the course website.

Course videos will be captioned, and I will try to fix any errors in the automatic transcriptions, but please feel free to email me if you notice any remaining mistakes. If you notice any additional accessibility issues with respect to this class, please let me know and I will do my best to solve them. I would also encourage any students who might benefit from their services to register with the Centre for Accessible Learning (<https://www.uvic.ca/services/cal/>).

**Course Description:** This is an introductory course in formal logic that covers the use of symbolic techniques for the analysis and construction of good arguments. Proofs in formal logic mirror the structure of good arguments in English generally, so to construct them, we learn about good methods of inference. Not every method of reasoning results in a valid argument, so it is useful to learn about ways of differentiating good from bad methods. Since this course covers the basics of modern symbolic logic, it is extremely useful for any students who might want to continue studying logic; but any students interested in writing better arguments can benefit from it.

**Learning Objectives:** You will learn the basic terminology and concepts of formal logic, and apply them to the formal languages we will learn using truth-functional connectives and quantifiers. The main skills you will learn will be:

- translating arguments from English into these formal languages,
- using truth tables for evaluating sentences and arguments, and
- constructing logical proofs using a formal system.

**Course Logistics:** This will be an *asynchronous* online course. This means that there are no particular times of day when you need to watch course videos, post in discussion forums, or complete your assigned work. There are still regular deadlines for completing your assigned work, though, so you will still be expected to keep up with what we are covering on any given week. The textbook is available on the course website as a downloadable PDF file. Weekly quizzes and tests will be posted on the course website, and will be completed using a system called <http://carnap.io/>. This will not require you to

download any software, but you will need to be connected to the internet to complete and turn in your gradeable work. You are welcome and encouraged to discuss course material with others in your class, and work together to solve problems. However, the work you turn in must be your own, and you are not allowed to provide the solutions for someone else's assignments or vice versa. If you are ever unsure about what constitutes a violation of academic integrity, more information is provided on the University Calendar: <http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html>.

Many of you might be new to online learning—but whether online or in person, I know that sometimes things do not go as planned. You are welcome to two day's worth of extensions on quizzes or tests. This means you can take two extra days to complete a single assignment, or have one extra day on two different assignments. Please let me know before the due date if you are using an extension. You also do not need to tell me why you need the extension, but if you anticipate needing more than these two days, I highly encourage you to make an appointment with me to talk about how we can plan for you to keep up with the course schedule.

The course schedule at the end of this documents lists the topics for each week and relevant readings from the textbook. All of my course videos, practice questions, and the week's test or quiz will be available on the course website prior to the start of the week when the material is covered. In order to receive your participation grade, you will need to post original (not duplicates of textbook questions or those in the practice assignments) practice questions and solutions for your classmates on the course discussion forums. You can receive 2 marks for this per unit, for a total of 8 marks in the class, and guidelines for the questions will be posted for each forum. No extensions will be given on these participation grades, since they are for the benefit of the other students in the class.

### Grading Breakdown:

Gradable Item	Description	Value
Participation	Posting practice questions on the course discussion boards.	1% x 8 weeks = 8%
Short Quizzes	Quiz questions about the week's material	4% x 8 quizzes = 32%
Unit Tests	Non-cumulative test on material from the whole unit.	15% x 4 tests = 60%
		Total = 100%

### Suggested Weekly Schedule:

Day(s)	Tasks
Monday - Tuesday	Read textbook, watch course videos. Slow down and review materials as needed. Schedule office hours if needed.
Wednesday	Work on practice assignment, draft new practice questions. Schedule office hours if needed.
Thursday - Friday	Work through others' practice questions. Review material as needed.
Friday - Saturday	Finish weekly quiz or test.

**Communication and Office Hours:** Email is my preferred method of communication, especially for any official requests. If you ask me a question over email, you can expect a reply within about 1 working day. If you don't hear back from me after that time frame, feel free to try again in case your message went astray. When you do address me (over email or otherwise), please do so as either Professor (Prof.) Yap, Dr. Yap, or Audrey. Please don't use any of Mrs/Miss/Ms/Mr, for a variety of reasons. If you are ever nervous about sending me an email, or asking a question, feel free to include a picture of a puppy with your request. This will not affect whether or not I will be able to help you with your request, but will give you an excuse to look for pictures of puppies. Finally, my pronouns are she/her/hers. If you think I am unlikely to know the name you would prefer to be called, or the pronouns I ought to use for you through the entry that I will see for you through CourseSpaces/UVic registration, please don't hesitate to make me aware.

I will be available for office hours on Tuesday and Friday mornings between 10 and 11:30am. My default platform for office hours will be Zoom, but if that does not work for you, please feel free to email me in advance to suggest an alternative. You will need to schedule an appointment beforehand using the weekly scheduler on the course website. Appointments can be scheduled in 20 minute blocks. If you are working with a study group and would like to attend office hours as a group, simply designate one person to reserve the appointment slot, and let me know who else will be attending.

**Numerical and Letter Grades:** Grades will be given as percentile marks. The percentile mark for the course will be converted to a letter grade in the following manner: A+ = 90 - 100, A = 85 - 89, A- = 80 - 84, B+ = 77 - 79, B = 73 - 76, B- = 70 - 72, C+ = 65 - 69, C = 60 - 64, D = 50 - 59, F = 0 - 49. The A range means exceptional, outstanding and excellent performance. A grade in the B range means a very good, good and solid performance. A grade in the C+ or C range means satisfactory, or minimally satisfactory, performance. A grade of D or D- indicates merely passable or marginal performance. An F indicates unsatisfactory performance.

## Schedule of Topics:

- Week One: Short week — term starts Sep 9  
Topic: Introduction to Arguments and Formal Logic (Chap 1-2)
- Week Two: Sep 14-20  
Topic: Symbolizing English (Chap 4-6)  
Practice Questions posted by Sep 17  
Quiz One completed by Sep 20
- Week Three: Sep 21-27  
Topic: Introduction to Truth Tables (Chap 8-10)  
Practice Questions posted by Sep 24  
Quiz Two completed by Sep 27
- Week Four: Sep 28-Oct 4  
Topic: Truth Tables, Continued (Chap 11-13)  
Practice Questions posted by Oct 1  
Test One (Translation and Truth Tables) completed by Oct 4
- Week Five: Oct 5-11  
Topic: Natural Deduction (Chap 14-15)  
Practice Questions posted by Oct 8  
Quiz Three completed by Oct 11
- Week Six: Oct 12-18 (Thanksgiving is Oct 12)  
Topic: Natural Deduction, Continued (Chap 16)  
Practice Questions posted by Oct 15  
Quiz Four completed by Oct 18
- Week Seven: Oct 19-25  
Topic: Additional Rules for Natural Deduction (Chap 17)  
Practice Questions posted by Oct 22  
Test Two (Natural Deduction) completed by Oct 25
- Week Eight: Oct 26-Nov 1  
Topic: Introduction to First-Order Logic (Chap 21-22)  
Practice Questions posted by Oct 29  
Quiz Five completed by Nov 1
- Week Nine: Nov 2-8  
Topic: More Complex Translations (Chap 23-24)  
Practice Questions posted by Nov 5  
Quiz Six completed by Nov 8

- Week Ten: Nov 9-15 (Reading Break is Nov 9-11)  
Topic: Grammar Review for FOL (Chap 25)  
Practice Questions posted by Nov 12  
Test Three completed by Nov 15
- Week Eleven: Nov 16-22  
Topic: Truth and Interpretations in FOL (Chap 27-28)  
Practice Questions posted by Nov 19  
Quiz Seven completed by Nov 22
- Week Twelve: Nov 23-29  
Topic: Natural Deduction for FOL (Chap 32-33)  
Practice Questions posted by Nov 26  
Quiz Eight completed by Nov 29
- Week Thirteen: Nov 30-Dec 6  
Topic: Additional Rules for FOL (Chap 34-36)  
Practice Questions posted by Dec 3  
Test Four completed by Dec 6