

Phil 203: Elementary Formal Logic

Syllabus

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

Office/Phone: CLE B307 (721-7510)

Office Hours: TWF 11:30-12:20, and by appointment

Class Information: TWF 10:30-11:20 in HHB 105

Course Website: Through CourseSpaces. <http://coursespaces.uvic.ca>

Textbook: Jon Barwise and John Etchemendy, *Language, Proof, and Logic*, CSLI Press.

About the book: You need an unused registration ID, which you will find on the CD sleeve if you purchase a physical copy. You do not need a physical copy of the textbook. An easy way to purchase *Language, Proof, and Logic* is online through this site: <https://ggweb.gradegrinder.net/store>.

If you notice any accessibility issues with respect to this class, please let me know and I will do my best to solve them.

Course Outline: 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 will benefit from it.

Communication: Office hours are held on a drop-in basis. You do not need to make an appointment to see me during those times, although the amount of time I can spend talking to any one person during office hours can depend on how many people are waiting. If you do want to schedule an appointment outside my office hours, try emailing me with a few suggestions for times that would work for you. I'm also happy to try and answer short questions either before or after class, time permitting. In general, 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, or Dr. Yap. 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/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.

Course Logistics: I do not take attendance, and basic notes are posted on the course website on a regular basis. This means that if you do have to miss class, you will be able to get an idea of what you have missed through the online resources. However, classes will give you the opportunity to get more detailed explanations of the concepts. I do expect you to come to class, but there is no need to tell me if you need to miss class unless it is likely to be a regular occurrence or there is a test scheduled for that day. If you require any accommodations with respect to planned class activities, I encourage you to register with the Centre for Accessible Learning (<https://www.uvic.ca/services/cal/>). However, in general, please feel free to talk to me if there are issues with your access to or learning in this course that you think I should know about.

There will be 12 homework assignments, roughly one per week. Homework must be submitted by 5pm on the due date, unless otherwise specified. Most of the homework is turned in using the Submit software in the LPL package, and will be marked electronically. Although the software allows you to submit your assignment to the instructor multiple times, only the *first* submission will be counted for your grade. This means that the entire assignment must be submitted at the same time. If you wish to check your work before submitting it, you can submit the assignment only to yourself as many times as you like. Some additional questions will be answered separately on CourseSpaces. All assignments will be weighted equally, but the lowest assignment mark will be dropped, even if it is a 0. Late homework will generally not be accepted. Exceptions to these rules will only be made in the case of documented illness or other extenuating circumstances which interfere with the timely completion of the assigned work. Such documentation must be received within a week of the due date.

Homework will be worth 20% of the final grade. There will also be two non-cumulative midterms (20% each) to be held during class, and a cumulative final to be held during the final examination period to be scheduled by the Registrar (40%). Rewrites will only be scheduled in cases of documented illness or other extenuating circumstances. Such documentation must be received within a week of the exam date.

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.

Academic Integrity: You may work on the homework assignments in small groups, but must write your answers to the homework independently. In particular, you must create your own solution files when turning in your homework, since the software can detect copied files. Work on assignments or tests that has been copied, or has been provided for someone else to copy, will not be given credit. For more information on academic integrity, see the University Calendar: <http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html>

Schedule:

- Week One: Sept 4, 6
Topic: Introduction to Symbolic Logic (Introduction, 1.1-1.3, 2.1)
- Week Two: Sep 10, 11, 13
Topic: Validity and Soundness, Boolean Connectives (2.1, 2.5, 3.1-3.3, 3.5-3.7)
HW 1 due Sep 13
- Week Three: Sep 17, 18, 20
Topic: Boolean Connectives, Truth Tables (3.5-3.7, 4.1-4.4)
HW 2 due Sep 20
- Week Four: Sep 24, 25, 27
Topic: Truth Tables, Formal Proofs (6.1-6.6)
HW 3 due Sep 27
- Week Five: Oct 1, 2, 4
Topic: Formal Proofs (6.1-6.6)
HW 4 due Oct 4
Test One: Oct 4
- Week Six: Oct 8, 9, 11
Topic: Conditionals (7.1-7.2, 8.2, 8.4)
HW 5 due Oct 11
- Week Seven: Oct 15, 16, 18
Topic: Introduction to Quantifiers (9.1-9.6)
HW 6 due Oct 18
- Week Eight: Oct 22, 23, 25
Topic: Translating Quantified Phrases (11.1-11.4)
HW 7 due Oct 25

- Week Nine: Oct 29, 30, Nov 1
Topic: More Complex Translations (11.1-11.4, 14.1)
HW 8 due Nov 1
Test Two: Nov 1
- Week Ten: Nov 5, 6, 8
Topic: Proofs with Equality and Quantifiers (2.1-2.4, 13.1-13.3)
HW 9 due Nov 8
- Week Eleven: Nov 15
Topic: Proofs with Quantifiers (13.1-13.3)
HW 10 due Nov 15
- Week Twelve: Nov 19, 20, 22
Topic: Proofs with Quantifiers (13.5, 14.2)
HW 11 due Nov 22
- Week Thirteen: Nov 26, 27, 29
Topic: Proofs with Numerical Quantifiers. Review.
HW12 due Nov 29
- Week Fourteen: Dec 3
Topic: Review.