

SYMBOLIC LOGIC: PHIL 220-002 (3) SYLLABUS

SUMMER TERM 2, 2020

INSTRUCTOR INFORMATION

Instructor

Matthew Smithdeal

Email

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Office Location & Hours

Collaborate Ultra General Course Room
Monday and Wednesday 1-2pm
starting week 2 (or by appointment)

GENERAL INFORMATION

DESCRIPTION

Logic, broadly construed, is the study of reasoning. More specifically, it is the study of correct reasoning. What might we mean when we classify an argument as a “good” one? What makes one argument good and another poor? What do good arguments have in common? Formal logic aims to study these questions from a content-free perspective by abstracting away from the specific meanings of particular sentences and arguments and focusing instead on their underlying structures.

This course will meet in Collaborate Ultra (accessed through Canvas) during the scheduled class times.

COURSE GOALS

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

- Understand the basics of analyzing, evaluating, and symbolizing arguments
- Grasp the basic concepts of first-order logic and truth-functional logic
- Translate sentences and arguments into formal languages
- Understand and utilize the main inference rules of first-order logic and truth-functional logic
- Construct proofs in first-order logic and truth-functional logic
- Identify common, informal fallacies of reasoning

COURSE MATERIALS

REQUIRED TEXT

- *For All X, Calgary Edition* by P. D. Magnus and Tim Button, adapted by Thomas-Bolduc and Zach
- This is a **free, open source** textbook. There are several different editions of *For All X*. Please ensure you are using the Calgary Edition.
- Please use the PDF that is posted in the files section of the canvas site rather than searching for a version on the web. There are frequently slight modifications to the version posted on their website and we want to ensure you have the exact same version. There is also an accessible version of the textbook in the files section.
- You may wish to print the textbook. There is a black and white version of the textbook formatted for printing in the canvas files. You can also purchase a printed version of the book on amazon (which may be cheaper than printing it yourself) -- <https://www.amazon.ca/dp/1077319851>
- We will also use carnap.io for homework. More information will be provided the first week of class.

COURSE SCHEDULE

Please note that this schedule may change at the instructor's discretion to suit the pace of the course and the interests of the students. Please also note that all readings are to be read *before* the date listed.

Day	Topic and Reading	Work Due
Monday, July 6 th	<i>Introductions and Logic Basics</i> Part 1 (Chapters 1-3)	
Wednesday, July 8 th	<i>Symbolization Introduction</i> Part 2 (Chapters 4-7)	Introductory Survey due Sunday, July 12 th at 11:59 pm PST
Monday, July 13 th	<i>Truth Tables</i> Part 3 (Chapters 8-13)	
Wednesday, July 15 th	<i>Natural Deduction: Basic Rules and Strategies</i> Part 4 (Chapters 14-16)	Homework 1, EC 1, and Quiz 1 Assigned Due: July 19 th at 11:59 pm PST
Monday, July 20 th	<i>Natural Deduction: Additional Rules, Derived Rules, Soundness, and Completeness</i> Part 4 (Chapters 17-20)	Homework 2, EC 2, and Quiz 2 Assigned Due: July 26 th at 11:59 pm PST
Wednesday, July 22 nd	<i>Extra Practice with Deduction in TFL</i> (Attendance optional)	
Monday, July 27 th	Midterm	
Wednesday, July 29 th	<i>Introduction to First-Order Logic</i> Part 5 (Chapters 21-26)	Homework 3, EC 3, and Quiz 3 Assigned Due: Aug. 2 nd at 11:59 pm PST
Monday, Aug. 3 rd	--- No Class (Holiday) --- Optional Reading: Part 6 (27-31)	
Wednesday, Aug. 5 th	<i>Natural Deduction for First Order Logic</i> Part 7 (Chapters 32-37)	Homework 4, EC 4, and Quiz 4 Assigned Due: Aug. 9 th at 11:59 pm PST
Monday, Aug. 10 th	<i>Extra Practice with Deduction in FOL</i> (Attendance optional)	
Wednesday, Aug. 12 th	<i>Informal Fallacies</i> Reading TBD	Homework 5, EC 5, and Quiz 5 Assigned Due: Aug. 16 th at 11:59 pm PST
TBD (Aug. 17-21)	Final Exam	

ASSIGNMENTS

You can choose between two different assignment structures for the course. Option B is better suited to those students who come to this class with a prior exposure to logic or who are particularly self-motivated to complete the course on their own. Option A is best suited to students that have no background in logic or if you would prefer to have more oversight and external motivation to keep up with the course.

I will ask which option you prefer on Monday, July 13th. Attendance and homework assignments will start this week. Your option cannot be changed after this point except for instances of extenuating circumstances.

The midterm and final exam will be live proctored by myself through Collaborate Ultra. This will require you to have your camera and microphone turned on during the exam. If you do not have a camera, cannot attend during the scheduled class period, or have privacy concerns, please reach out for alternatives. Note that alternative exam times will likely be proctored via Proctorio.

OPTION A - GUIDED WITH ATTENDANCE

- Introductory Survey: 5%
- Attendance: 10%
- Homework: 15%
- Weekly Quizzes: 15%
- Midterm: 25%
- Final: 30%

A homework set assigned every Wednesday starting in week 2 that is due the following Sunday at 11:59pm PST. The homework will cover the material from that week. Late homework is not accepted. Attendance will also start being taken on Monday, July 13th.

Starting in week 2, a quiz will be assigned to test your knowledge of the material in the previous week. The quiz will be available from the end of class on Wednesday until the following Sunday at 11:59pm PST. I strongly encourage you to complete the homework *before* attempting the quiz.

OPTION B - GUIDED WITHOUT ATTENDANCE

- Introductory Survey: 5%
- Homework: 15%
- Weekly Quizzes: 15%
- Midterm: 30%
- Final: 35%

The same as option A, but more suited for students that may not be able to attend class live for whatever reason or are unsure about their ability to consistently attend live due to possible technical or internet issues.

OPTION C - SELF PACED

- Introductory Survey: 5%
- Midterm: 40%
- Final: 55%

OPTIONAL EXTRA CREDIT

Each Wednesday after the first week, I will assign an optional extra credit problem that is due the following Sunday at 11:59pm PST. Late submissions will not be accepted. You may participate regardless of whether you have chosen assignment option A or B. Each completed submission will be worth 1% on your final grade, up to a maximum of 5%.

ADDITIONAL INFORMATION AND RESOURCES

LECTURE RECORDINGS

For a variety of reasons, including potential time zone issues or technical issues, each lecture will be recorded in Collaborate Ultra. Recordings will only be available to other students within the course and will not be distributed or used more broadly. If you wish to not appear in the recording, please keep your microphone and camera off during lecture.

CLASS STRUCTURE

Summer courses are dense, sadly, and require moving at a faster pace than a normal semester. Each class is meant to approximate a week of normal semester coursework, so staying on top of the readings, and attending every class is essential. While little is to be done about the structure, it must be recognized that doing any single task, much less logic, for three hours is nearly impossible.

While I ask that you be available for the entire class period, in practice, our classes will generally be closer to 1.5-2 hours with a short break in the middle.

OFFICE HOURS, AKA: COME CHAT WITH ME!

You are warmly encouraged to attend office hours. They will be held virtually, in the general course classroom in Collaborate Ultra. I am looking forward to discussing topics pertaining to the course, but also any other philosophical or intellectual issue that interests you. Talking in person is often a good way to clarify doubts or confusions you may have, it's quicker than emailing, and it's fun! If you can't come to regularly scheduled office hours, please email me and we'll find a time.

LATE ASSIGNMENT POLICY

It is important to submit your work on time; however, I am happy to consider reasonable requests for extensions (only if the request is approved before the assignment is due). Otherwise, late homework and extra credit assignments are not accepted. Quizzes and midterms must be completed during the scheduled period, unless prior arrangements are made.

ACCESSIBILITY

Academic accommodations help students with a disability or ongoing medical condition overcome challenges that may affect their academic success. Students requiring academic accommodations must register with the Centre for Accessibility (previously known as Access & Diversity). The Centre will determine that student's eligibility for accommodations in accordance with Policy 73: Academic Accommodation for Students with Disabilities. Academic accommodations are not determined by your instructors, and instructors should not ask you about the nature of your disability or ongoing medical condition, or request copies of your disability documentation. However, your instructor may consult with the Centre for Accessibility should the accommodations affect the essential learning outcomes of a course.

Please note that you are welcome to discuss accessibility related accommodations with me without official documentation and I will make every effort to accommodate.

COPYRIGHT

Instructor-generated course material (e.g., handouts, outlines, summaries, exam questions, etc.), including material posted on Canvas are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor.

ACADEMIC CONCESSION

If you miss marked coursework for the first time (assignment, exam, presentation, participation in class) and the course is still in-progress, immediately submit a [Student Self-Declaration](#) to me so that your in-term concession case can be evaluated.

If this is not the first time you have requested concession or classes are over, fill out Arts Academic Advising's [online academic concession form](#) immediately, so that an advisor can evaluate your concession case.

If you are a student in a different Faculty, please consult [your Faculty's webpage on academic concession](#), and then contact me where appropriate.

CONFLICTING RESPONSIBILITIES

UBC recognizes that students may occasionally have conflicting responsibilities that affect their ability to attend class or examinations. These may include: representing the University, the province or the country in a competition or performance; serving in the Canadian military; or observing a religious rite. They may also include a change in a student's situation that unexpectedly requires that student to work or take responsibility for the care of a family member, if these were not pre-existing situations at the start of term.

Students with conflicting responsibilities have a duty to arrange their course schedules so as to avoid, as much as possible, any conflicts with course requirements. As soon as conflicting responsibilities arise, students must notify either their instructor(s) or their Faculty Advising Office (e.g. Arts Academic Advising), and can request academic concession. Instructors may not be able to comply with all such requests if the academic standards and integrity of the course or program would be compromised.

Varsity student-athletes should discuss any anticipated and unavoidable regular-season absences with the instructor at the start of term, and provide notice of playoff or championship absences in writing as soon as dates are confirmed.

Religious observance may preclude attending classes or examinations at certain times. In accordance with the UBC Policy on Religious Holidays, students who wish to be accommodated for religious reasons must notify their instructors in writing at least two weeks in advance. Instructors provide opportunity for such students to make up work or examinations missed without penalty.

UBC VALUES STATEMENT

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available here (<https://senate.ubc.ca/policiesresources-support-student-success>)

PLAGIARISM

Plagiarism, which is intellectual theft, occurs where an individual submits or presents the oral or written work of another person as his or her own. Scholarship quite properly rests upon examining and referring to the thoughts and writings of others. However, when another person's words (i.e. phrases, sentences, or paragraphs), ideas, or entire works are used, the author must be acknowledged in the text, in footnotes, in endnotes, or in another accepted form of academic citation. Where direct quotations are made, they must be clearly delineated (for example, within quotation marks or separately indented). Failure to provide proper attribution is plagiarism because it represents someone else's work as one's own. Plagiarism should not occur in submitted drafts or final works. A student who seeks assistance from a tutor or other scholastic aids must ensure that the work submitted is the student's own. Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

A link about Academic misconduct is below

<http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,54,111,959>