

PHIL 150 – Symbolic Logic

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Office: Main Hall 410
Office Hours: MWF 1:45-3pm

I. Required Text

Thomas J. McKay, *Modern Formal Logic*, 2nd ed.

Note: This is a custom printed text and copies are likely unavailable online (and any available copies are probably not the version required).

II. Course Description

We'd like to be able to say when we have good reasons for accepting certain claims. Towards this end, we will undertake a systematic study of the standards of deductive reasoning, i.e., of valid argumentation. Among other things, you'll learn how to formulate arguments, how to distinguish valid arguments from invalid ones, and how to demonstrate validity or invalidity. We'll examine the formal expression of arguments and, in particular, two general types of argument structure: first, structures that are distinguished by the way that compound sentences and their constituents are related; and, second, structures that depend on the features of compound sentences and that also involve quantifier expressions (words like *all* and *some*). We'll connect linguistic structure with validity and see how the study of linguistic structure is the foundation for recognizing and demonstrating validity. In addition to validity, we'll study a number of related concepts, including inconsistency, logical equivalence, and logical truth.

Formal logic concerns the foundations of reasoning. It is relevant to **all** subjects of study (naysayers notwithstanding) and of particular importance to philosophy, computer science, linguistics, and mathematics, among other subjects.

III. Course Requirements

Grade Distribution	Grading Scale		
4 in class exams: 15% each	A: 94-100	A-: 90-93	
Final Exam: 20%	B+: 87-89	B: 83-86	B-: 80-82
Homework: 10%	C+: 77-79	C: 73-76	C-: 70-72
Attendance/Participation: 10%	D: 60-69	F: 0-59	

Note: There will be no extra credit assignments. Don't ask.

Attendance

Attendance is mandatory and it is crucial to learning the course material. Everyone gets **one** unexcused absence. Further absences will reduce your grade, directly detracting from your attendance/participation score and indirectly detracting from the other parts of your grade. Consistent attendance is also required for receiving out of class help from me. I flatly refuse to give such help to anyone who has a significant number of unexcused absences; I have neither the time nor the inclination. You are solely responsible for

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acquiring notes, handouts, etc. for days you are absent and should check with me to see if you missed any announcements.

Homework

Homework assignments are due every non-exam day. **A file with all the homework assignments is available on the course's Moodle page.** You must turn in completed, printed copies of each set of homework assignments. If you can't make it to class on a given day, you may have a classmate turn your homework in for you or you may leave it in my mailbox (again, by the beginning of class). Homework is worth 1 point per page. Points will be awarded if homework is submitted on time and if you made an obvious, honest effort to complete it. **Late homework will not be accepted unless you have a valid excuse.** Once the homework has been turned in, I will post keys on Moodle.

I cannot overemphasize the importance of doing the homework. Most of what you'll learn, you'll learn this way. It will be difficult if not impossible to do well without considerable, mostly successful completion of the homework. Doing the homework and turning it in will make it possible to discover any difficulties you have with the material before the exams rather than after. If you don't know how to finish a particular problem, you should confer with your classmates, see the tutor or meet with me (or email me) so that you do not fall behind. **The course will proceed at a fast pace, so you need to make sure you keep up with the homework.** Keep track of the schedule at the end of this syllabus, so you know what's coming and so you can plan your time accordingly.

Reading

You should do the required readings before class so that you have a chance to think about the topics we'll discuss and so you have ample opportunity to ask questions about the material. Time permitting, you should also do exercises from the book. Solutions to select exercises are in the back of the book. Do those if you'd like to check your work. We can do other exercises in class if we have time.

If you have a question, ask it! Chances are, someone else has the same question. If I do not address a question of yours in class, be sure to ask it either after class, in office hours, or via email. Preparing questions, asking questions, and hearing the answer and any related discussion are all important ways of making sure that you learn the material.

Tutoring, Office Hours, Appointments, etc.

Tutoring is available. If you need extra help, I strongly encourage you to meet with the tutor. I am happy to meet with you individually, but given the size of the class, my time may be limited, especially near the end of the term. I can also meet with small groups (e.g., your study group). If you have a question or issue that can be dealt with over email, I encourage you to email me about it; often, you'll get a quicker response that way.

IV. Additional Policies

Academic Dishonesty

You may work with others when doing the homework. In fact, I encourage you to do so. It will probably make the course more bearable (maybe even enjoyable) and may make learning the material easier. That said, you should actively participate in all work that you hand in. Copying answers worked out by someone else is a form of academic dishonesty. Moreover, you won't learn anything that way. That will lead to disaster.

If you cheat on an exam, I'll catch you and you'll regret it. Do not talk to anyone when taking the exams. Do not use any materials other than those I provide. I enforce the University's policy on academic dishonesty without exception. If you cheat, the incident will be reported to the Dean of Student Academic Services and to the Honor Council. You must write the following on all assignments, followed by your signature: "I reaffirm the LU Honor Pledge" (for homework, write an abbreviation of this on the first page).

Missed Exams

If an emergency (serious illness, injury, passing of a friend or family member) forces you to miss an exam or renders you unable to hand in an assignment on time, try to contact me beforehand (a short email is fine). We'll then schedule a make-up exam or agree on an extension deadline. Vacations, oversleeping, etc. are not acceptable reasons. Plan your term accordingly. If you miss an exam and have no excuse, you'll get a 0 for that exam.

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V. Tentative Schedule

*Chapters listed for each day are to be read before class that day. Homework listed is due at the beginning of class on that day.

Week 1	1/4 – Intro 1/6 – Chs 1-2; HW: 1-2, 4-5 1/8 – Ch 3; HW: 7-10
Week 2	1/11 – Ch 3; HW: 11-12, 14 1/13 – Ch 4; HW: 16-17 1/15 – Ch 5; HW: 19-21, 23, 25
Week 3	1/18 – No class. MLK Day. 1/20 – Ch 5; HW: 26-29, 31, 33-35 1/22 – review; HW: 36-37, 39-40
Week 4	1/25 – Exam 1, covers Chs 1-5 1/27 – Ch 6; HW: 41-42, 44-46 1/29 – Ch 7; HW: 48-49, 51
Week 5	2/1 – Ch 7; HW: 52, 54, 56 2/3 – Ch 8 (pp 155-177); HW: 57-59 2/5 – review; HW: 60-61
Week 6	2/8 – Exam 2, covers Chs 6-8 2/10 – Ch 9 (pp 189-212); HW: 63-66 2/12 – No class. Reading day.
Week 7	2/15 – Ch 9 (pp 189-212); HW: 67-68, 70-76 2/17 – Ch 10; HW: 77-80, 82 2/19 – Exam 3, covers Chs 6-9
Week 8	2/22 – Ch 10; HW: 84, 96, 98, 100-101 2/24 – Ch 11 (pp 249-297); HW: 85, 86-93 2/26 – Ch 11 (pp 249-297); HW: 95, 102-105, 107
Week 9	3/1 – Ch 11 (pp 249-297); HW: 108, 110, 112-118, 120-122 3/3 – Ch 11; HW: 123-126, 128-130 3/5 – Exam 4, covers Chs 10-11
Week 10	3/8 – Ch 12; HW: 131-136 3/10 – Ch 12; HW: 137-141 3/12 – review 3/18, 1:30pm – Final Exam, covers Chs 1-12