

Philosophy 2302-(6)-001: Logic

University of Winnipeg
Fall/Winter 2013–14
10:30–11:20 MWF
2M77 Manitoba Hall

Lowell Friesen
0B01E Bryce Hall
lo.friesen@uwinnipeg.ca

Office Hour: Monday and Wednesday, 11:30–12:30 (or by appointment)

1 Course Description

Logic is the enquiry into the nature of sound reasoning. In this course in formal logic, we will learn two of the formal systems logicians have developed in their efforts to model sound reasoning. In the first semester, we will learn sentential logic (*SL*), and in the second semester we will learn predicate logic (*PL*). Along the way, we will consider some philosophical questions that these formal systems raise.

The study of logic is a fun and rewarding activity, but its value extends far beyond the feeling of satisfaction a completed proof brings. Course in logic are valuable for anyone looking to gain a deeper understanding of language, for anyone interested in studying the foundations of mathematics or the history of analytic philosophy, and, perhaps most importantly, for anyone looking to develop his or her capacity to think clearly and precisely or develop and evaluate arguments in a rigorous way.

This course will not presuppose any background in logic, and students from other academic disciplines are welcome. That said, students who have taken courses in critical thinking, philosophy, mathematics, computer science, or linguistics will probably find the course material easier to grasp.

2 Course Objectives

This course has several objectives. The first is to improve your ability to think clearly and precisely. The second is to prepare you for further studies in philosophy. The means by which these objectives will be met is by discharging a third objective, which is to give you a working knowledge of sentential and predicate logic. The formal systems we will study in this course are attempts to model the nature and mechanics of sound reasoning. Working with these formal systems will help you be a better judge of the soundness of your own reasoning and will give you some of the tools you need to work through issues in a careful and rigorous way. This is a valuable skill in any chosen career. Also, a significant percentage of contemporary philosophy presupposes some knowledge of these formal systems. By acquiring a working knowledge of them, you will have the tools you need to pursue further studies in philosophy at the undergraduate and graduate level.

3 Course Textbook

There is one required textbook for this course.

Merrie Bergmann, James Moor, and Jack Nelson, editors. *The Logic Book*. McGraw-Hill, 6th edition, 2013.

It is available at the University of Winnipeg bookstore. It is also possible to rent a digital copy for significantly less than the cost of a new hardcopy. Any additional readings will be distributed in class or made available on the course’s website.

4 Course Website

This course’s website is on Nexus. You can find Nexus’s log-in page here:

<https://nexus.uwinnipeg.ca>

You can also browse to it by selecting **Student** on the university’s homepage and then **Nexus** under the “Online Tools” heading. Your Webadvisor username and password should gain you access.

You will need to check the website frequently. Homework assignments will be posted on the website and will not be distributed in class. You will also be able to use the site to monitor your progress and performance in the class.

5 Course Evaluation

Your course grade will be determined as follows:

Graded Component	Percentage of Course Grade
Homework Assignments	35%
Tests	40%
Final Exam	25%

5.1 Homework Assignments

There will be a homework assignment every week with the exception of the first and last weeks of the semester and the weeks in which a test has been scheduled. (See the schedule in section 6 for more details.) The assignments will be distributed via the course website. They do not need to be completed on a word processor, but they must be legible.

The material in this course is technical and cumulative in nature. Nearly every chapter in the textbook presupposes every previous chapter. If you “check out” or fall behind for a week or two, it will be increasingly difficult for you to understand new material presented in class, which, in turn, will make it more and more difficult for you to catch up or find your footing again. Completing the homework assignments as the material is covered in class will help keep you on pace, but you should not assume that merely completing the homework assignments will be enough to get you on top of the material. This course is as much about acquiring a set of skills as it is about adding to your knowledge. These skills cannot be acquired in a single all-night cramming session. They require repeated practice over an extended period of time. Thus, you will need to make a point of working through some questions in the textbook or on the homework assignment several times a week.

Many people find it easier to learn difficult material by working together with other people. You are always welcome to come see me with your questions, but you are also encouraged to work together with your classmates. You are permitted to work in (small) groups, but everyone you work together with must submit an assignment and you must list the names of every person you consult or work together with on top of the assignment you submit.

5.2 Tests

There will be 5 tests, 3 in the fall semester and 2 in the winter semester. All of the tests, with the exception of the third test, will take place during a regularly scheduled class period. You will be given the full class period to complete each test. The third test will take place during the exam period after the fall semester (9:00AM, December 13, 2013, in MAN 2M77—see the university’s exam schedule) but will be the same length as the other tests. You will not be allowed to use the textbook, notes, or any electronic devices, and you may be asked to produce identification when taking tests. The best way to prepare for a test is by working through practice questions in the textbook and completing the homework assignments. Your grade will be determined by your best 4 of the 5 tests.

5.3 Final Exam

The final exam will take place during the exam period at the end of the winter semester (9:00AM, April 21, 2014, in MAN 2M77—see the university’s exam schedule), and will cover all of the material presented in the course. As with the tests, you will not be allowed to use the textbook, notes, or any electronic devices, and you may be asked for identification.

5.4 Grade Scale

95% –	A+
90–94%	A
88–89%	A–
83–87%	B+
78–82%	B
70–77%	C+
60–69%	C
50–59%	D
– 49%	F

6 Schedule

Although we will do our best to follow it, this schedule is tentative. If we fall behind, some topics may be omitted. Any changes to the schedule will be noted in class.

Fall Semester

Week	Topic and Readings	Important Dates
1 – 2	Introduction to Logic <i>The Logic Book</i> , Chapter 1	Assignment 1 (2%) Wed., 09/11

3 – 5	<i>SL</i> : Syntax and Symbolization <i>The Logic Book</i> , Chapter 2	Add/Drop Period Ends Assignment 2 (2%) Assignment 3 (2%) Test 1 (10%)	Tues., 09/17 Wed., 09/18 Wed., 09/25 Mon., 09/30
5 – 6	<i>SL</i> : Semantics <i>The Logic Book</i> , Chapter 3	Assignment 4 (2%)	Wed., 10/09
7 – 9	<i>SL</i> : Truth-Trees <i>The Logic Book</i> , Chapter 4	Thanksgiving Day (No Class) Assignment 5 (2%) Assignment 6 (2%) Test 2 (10%)	Mon., 10/14 Wed., 10/16 Mon., 10/23 Mon., 10/28
9 – 12	<i>SL</i> : Derivations <i>The Logic Book</i> , Chapter 5	Assignment 7 (2%) Remembrance Day (No Class) Assignment 8 (2%) Assignment 9 (2%)	Wed., 11/06 Mon., 11/11 Wed., 11/13 Wed., 11/20
13	Conditionals	Class in lieu of Thanksgiving Class in lieu of Rem. Day	Wed., 11/27 Thu., 11/28
	Exam Period	Test 3 (10%)	Fri., 12/13

Winter Semester

Week	Topic and Readings	Important Dates	
1 – 3	<i>SL</i> : Metatheory <i>The Logic Book</i> , Chapter 6	Assignment 10 (2%) VW Deadline Assignment 11 (2%)	Wed., 01/15 Tues., 01/21 Wed., 01/22
3 – 6	<i>PL</i> : Syntax and Symbolization <i>The Logic Book</i> , Chapter 7	Assignment 12 (2%) Test 4 (10%) Assignment 13 (2%)	Wed., 01/29 Mon., 02/03 Wed., 02/12
6	<i>PL</i> : Semantics <i>The Logic Book</i> , Chapter 8		
7	READING WEEK, FEBRUARY 17–22 (NO CLASSES)		
8 – 10	<i>PL</i> : Semantics (cont'd) <i>The Logic Book</i> , Chapter 8	Assignment 14 (2%) Assignment 15 (2%) Test 5 (10%)	Wed., 02/26 Wed., 03/05 Mon., 03/10
10 – 12	<i>PL</i> : Derivations <i>The Logic Book</i> , Chapter 10	Assignment 16 (2%) Assignment 17 (2%)	Wed., 03/19 Wed., 03/26

Exam Period
(See section 5.3)

Final Exam (25%) Mon., 04/21

7 Policies

7.1 Late Assignments and Missed Tests

Barring exceptional circumstances, late assignments will not be accepted and missed tests will not be rescheduled. If you will be away on the day an assignment is due, it is your responsibility to make alternate arrangements and ensure that your assignment is submitted on time. Likewise, if you have a scheduling conflict with a test, it is up to you to contact me well in advance to make alternate arrangements. If you only come to see me after the fact or the day before, I may not be able to accommodate you.

If you have a legitimate reason (e.g., family or medical emergency) to have a test rescheduled, I will do my best to accommodate you. However, you must contact me in a timely manner. Decisions regarding rescheduled tests will be made on a case by case basis, and you should not assume that I will agree with you regarding the accommodation-worthiness of your situation. I may not grant your request to have a test rescheduled and I reserve the right to ask you for evidence (e.g., a doctor's note) of your need for accommodation.

7.2 Appeals

I will do my best to ensure that grades are assigned in a fair and equitable way. However, you should not hesitate to approach me with any questions or concerns you might have about any grade you receive on any assignment or test. Although I cannot promise that we will ultimately agree on the grade your assignment or test should receive, I do promise to listen to your concerns and take them seriously. If you have approached me with your concerns and you are still of the belief that your grade is unjust, you have the right to launch a formal appeal. The university's policies and procedures for grade appeals can be found in section 10 of the regulations and policies section of the course calendar, which can be found here:

<http://www.uwinnipeg.ca/index/calendar-calendar>

7.3 Accommodations

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., access to volunteer note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or email accessibilityservices@uwinnipeg.ca to discuss appropriate options. Specific information about AS is available on-line at <http://www.uwinnipeg.ca/accessibility>. All information about a student's disability or medical condition remains confidential.

7.4 Scents

The University of Winnipeg promotes a scent-free environment. Please be respectful of the needs of fellow classmates and the instructor by avoiding the use of scented products while attending lectures. Exposure to perfumes and other scented products (such as lotion) can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities.

7.5 Academic Integrity

Groupwork is encouraged in this course. However, as in many other academic and non-academic settings, you must acknowledge the work and ideas of others when they appear in and alongside your own. Thus, when you submit homework assignments, you must include the names of everyone you consulted or worked together with. (See section 5.1.)

It is your responsibility to familiarize yourself with the university's policies regarding academic integrity and academic misconduct. You can find them in section 8 of the regulations and policies in the course calendar. (See section 7.2 for the course calendar's url.) If you have a question regarding academic integrity and the relevant section of the course calendar doesn't answer it, don't hesitate to direct it my way.