

Introduction to Logic

PHIL 1320

Syllabus

Course description

The University of Manitoba Undergraduate Calendar describes this course as follows:

A course which helps students to think clearly and critically, and to present, defend and evaluate arguments. The course deals with categorical logic, non-formal fallacies, definition, modern symbolic logic and scientific method. Not open to students who have previously obtained credit for PHIL 2430 (or 015.243) or PHIL 3750 (or 015.375). Students may not hold credit for PHIL 1320 (or 015.132) and any of: PHIL 1321 (or 015.132), PHIL 1290 (or 015.129), or PHIL 1330 (or 015.133).

The world is a place where there is a vast amount of information flooding into our daily lives. We are not subject matter expert's for most of that information, yet it is important for us to use it. As critical thinkers, we want to be able to evaluate this information using what we might conventionally call "logical" reasoning in order to direct our subsequent actions. Indeed, in our day-to-day life, the requirements to make decisions concerning our futures, places logical reasoning in an important position. The ability to discern good from bad reasons, or better from worse reasons, will come from the study of logic. Those who study logic will gain skills to better understand personal beliefs as well as the world in which we live.

Course goals

This is an introductory course in logic. The course is based on three inter-related subject areas: argumentation in ordinary language (also referred to as informal logic), inductive logic, and formal deductive logic. Upon completion of this course you should be able to:

- describe and discuss the concepts involved in the three areas;
- examine and be able to discuss the concepts involved in the three areas;
- employ the methods and procedures used in the three areas; and
- examine, evaluate, and state, through the three areas, further philosophical issues of related importance.

Course materials

Required

Bookstore

The following required materials are available for purchase from the [University of Manitoba Bookstore](#). Please order your materials immediately, if you have not already done so. See your [Distance and Online Education Student Handbook](#) for instructions on how to order your materials.

Textbook

- Hurley, Patrick J., (2015). *A Concise Introduction to Logic*. 12th Edition. Cengage Learning.

Course overview

Introductory logic is a course that helps students to think clearly and critically. As well, it assists them in presenting, defending, and evaluating arguments. The course examines three major subject areas in logic: informal logic, inductive logic and formal deductive logic. Regarding informal logic, we will examine in some detail the concepts in ordinary language argumentation, informal fallacies, and designating meaning. In inductive logic, we will investigate some common types of inductive arguments with a distinct focus on reasoning in the scientific method. Finally, and quite importantly, we will turn our

focus to the following areas in formal deductive logic: categorical logic and modern symbolic logic. As this is an introductory course, the majority of the information that you need can be found in your text. *A Concise Introduction to Logic* covers all three topics in a manner that is accessible to you as a beginning student in philosophy. This course will be closely tailored to the format of the text; however, we will move through the text material in a slightly different order than presented.

Topics

The course will be divided into fourteen units of study which parallel chapters in your textbook.

Term 1	Term 2
Unit 1: Orientation	Formal Deductive Logic Unit 10: Categorical Propositions
Informal Logic	
Unit 2: Basic Concepts	
Unit 3: Language: meaning and definition	Unit 11: Categorical Syllogisms
Unit 4: Informal fallacies	
Inductive Logic	
Unit 5: Analogy and Legal and moral Reasoning	Unit 12: Propositional Logic
Unit 6: Causality and Mill's Methods	
Unit 7 Probability	Unit 13: Natural Deduction in propositional logic
Unit 8: Statistical reasoning	
Unit 9: Hypothetical/Scientific reasoning, Science and superstition	Unit 14: Predicate logic

Learning activities

In this course you will have three major sources of information: the text, fellow students, and the synopsis material presented by your professor on the course website. They are meant to be used together in the following fashion:

Knowledge building through individual activity

When beginning a unit, refer to the course website and read the **introduction** and the **core ideas** material for the unit. This material is intended as an introduction to the text reading which should be your next step. This synopsis will direct you through the **text**, indicating any points of potential difficulty.

Knowledge building through collaborative activity

After reading all of the background material for the unit you will be asked to participate in a **discussion forum** in response to a practical application or overarching question from the unit. The point of participating in this discussion is two-fold. Initially your participation will provide an opportunity to discuss course material with your classmates, to clarify your understanding and practice logical argumentation through debate and discussion of questions. Secondly as you refine your understanding of logic you will be asked to develop a Concept Map which will be submitted at the end of each term for marks. The Concept Map is a graphical representation of your understanding of the course material. It should display the interrelationship between the central ideas and concepts as they have been presented in the course.

As you build your Concept Map, you will be expected to include quotes from the discussion forum to justify/explain your positioning of concepts.

Your instructor won't actively moderate the discussion forum weekly as this is your space to explore ideas, but he or she will check in occasionally to answer any questions or contribute some information that may be helpful. While the web discussion might be primarily active for only a short period of time, discussion can continue as long as there are course issues to be discussed.

Knowledge building through application and regular assessment

Throughout the course you will be asked to complete **five cumulative assignments** and **two term exams**. Each assignment and term exam will cover material from the preceding units and is designed to address material on a common subject area. The term exams are intended to review your knowledge of the material covered in the previous assignments. You will have to complete them during the exam period of the applicable term – that is why they are also referred to as term exams.

Note: This is not the only way to work through the course material you could complete the text readings before moving on to the synopsis, or you might find reading others posts in discussion helpful before completing your own reading, the choice is yours. However; doing well in the course entails actively engaging with all sources at a high level. Discussion posts and assignment results are naturally improved by a good understanding of the text based material.

Evaluation and grading

For each piece of work you will receive a percentage mark. That mark, as a portion of your coursework will receive the weighting noted below.

Evaluation	Percentage
Concept Map	5%
5 Cumulative assignments	50% (5 x 10%)
2 Term exams	45% (20%,25%)

Grading scale

In this course (though not necessarily in any other course in the Department of Philosophy) the following equivalence between letter grades and percentages is used:

Letter grade	Percentage grade
A+	95-100
A	85-95
B+	80-85
B	70-80
C+	65-70
C	55-65
D	45-55
F	0-45

Note: All final grades are subject to departmental review.

Assignments

The assignments for this course are located in the Assignments area in the course website. Each assignment will be of varying format, depending on the subject matter concerned. The specific instructions for each task, as well as how it will be assessed will be presented together. What follows is a simple overview of general assignment expectations:

Term exams

The two term exams will be similar in format to your previously completed assignments but must be completed within a more restrictive time limit during the exam period at the end of each term.

Assignments

Each assignment will be formatted differently, depending on the subject matter concerned. Specific instructions for each assignment will be included in the particular assignment as well as the assessment rubric to be applied. However, some general points are pertinent at this point. First, don't feel you have to include quotes from the text with every answer you submit. Your own thoughts, derived from the reading material are what is being assessed in this course. There may be an occasion when a quote from the text is appropriate; however, it should be considered the exception to the norm. Second, be as concise and to the point as possible in your answers, while providing a complete picture. A sound approach to completing your assignments is to consider that the instructor who will be marking them is knowledgeable both with the text and the subject material in general. Your responsibility then, on the assignments, is to convince the instructor that you also understand, and can apply, the course material. As this is a first year philosophy course your assignments will be marked for comprehension of course material, problem analysis and application of analytical methods.

Note: Detailed instructions about the assignments are found in the assignment area in your course website.

Concept Map

The Concept Map is a diagrammatic representation of the key concepts of logic and their interrelationship to each other. Your concept map will be reviewed at the end of each term. During each unit you will be asked to participate in a discussion forum, use short quotes and examples from these discussions to assist you in building your concept map. Although you could create the entire concept map at end of term, it is advisable to start it the first week of class and revise it weekly thereafter. You will note here that the discussion forum is not marked, however completion of the concept map relies on evidence obtained from the discussion forum.

Assignment due dates

Consult your course schedule for the assignment due dates.

Plagiarism, cheating, and examination impersonation

You should acquaint yourself with the University's policy on plagiarism, cheating, and examination impersonation as detailed in the General Academic Regulations and Policy section of the University of Manitoba *Undergraduate Calendar*. Note: These policies are also located in your *Distance and Online Education Student Handbook* or you may refer to Student Affairs at <http://www.umanitoba.ca/student>.

Distance and Online Education (DE) Student Resources

In your course website there are links for the following:

- Contact Distance and Online Education Staff
- Distance and Online Student Handbook
- Distance and Online Education Website

Acknowledgements

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Sample

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