

PHIL 120: SYMBOLIC LOGIC I

Fall 2012

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Course Description and Course Objectives

In this course, we will learn how to determine, of any proposed argument that may be represented in first-order predicate logic, whether or not it is deductively valid. To this end, we will learn how to symbolize arguments formulated in English by learning how to symbolize the English sentences that constitute the premises and conclusions of these arguments; we will learn the rules of a natural deduction system and learn how to apply those rules to determine the logical status of any argument symbolized in accordance with those rules; and we will also learn semantic methods for determining validity and invalidity. Those who acquire the knowledge and skills taught in this course will be able to distinguish between good and bad reasoning in the most rigorous way possible.

[Prerequisites: Phil 10 or consent of instructor.]

Required Text

Terence Parsons, *An Introduction to Symbolic Logic*. The text is free and online.

The text may be accessed through the Logic 2010 computer program (see below).

Course Units and Reading Assignments

Note: This is the *order* in which we will be covering the relevant material. The unit numbers do *not* correspond to the lectures.

1. Symbolization in the Language of Chapter I
Reading: TerryText, Introduction and Chapter 1, Sections 1-3
2. Derivations in the System of Chapter I
Reading: TerryText, Chapter 1, Sections 4-10
3. Symbolization in the Language of Chapter II
Reading: TerryText, Chapter 2, Sections 1-3

4. Derivations in the System of Chapter II
Reading: TerryText, Chapter 2, Sections 2-5 and 8-9
5. Truth-Value Analysis of Sentences and Arguments
Reading: TerryText, Chapter 2, Sections 10-11
6. Symbolization in the Language of Chapter III
Reading: TerryText, Chapter 3, Sections 1-2 and 4-5
7. Bondage and Freedom
Reading: TerryText, Chapter 3, Section 3
8. Derivations in the System of Chapter III
Reading: TerryText, Chapter 3, Sections 6-9
9. Invalidity: Counterexamples
Reading: TerryText, Chapter 3, Section 10
10. Symbolization in the Language of Chapter IV
Reading: TerryText, Chapter 4, Sections 1-2
11. Derivations in the System of Chapter IV
Reading: TerryText, Chapter 4, Section 3
12. Invalidity: Counterexamples
Reading: TerryText, Chapter 4, Section 9

Course Requirements

- * Homework: 20% [for details, see below]
- * Mid-Term: 30% [in class, open book, Thursday, November 1]
- * Final: 50% [in class, open book, Thursday, December 13, 8am-11am]

Homework

There will be one or two (more often, two) homework assignments due before each lecture. There will be no assignments due on November 1.

Late assignments will not be accepted unless a valid excuse is communicated to me (if possible) substantially before the assignment is due. [For how to submit homework assignments for credit, see Computer Program: Logic2010 below.]

Computer Program: Logic 2010

There is a computer program associated with the course. You are *not* permitted to download the program on a *public* computer, such as a computer in Geisel Library. In order to use the program, you need to download, install, and run Logic 2010 on a Windows PC or Mac that has access to the internet. Instructions for downloading, installing, and running Logic 2010 are available at the **LOGIC 2010 PORTAL**:

<http://logiclx.humnet.ucla.edu/>

(Make sure you follow ALL the instructions before and during downloading. You need to know your UCSD Student ID number and pick a Logic Password in order to register as a user. **DO NOT FORGET YOUR LOGIC PASSWORD.**)

Homework assignments are accessible through the program (by clicking on “Assignments” on the Main Menu) or by clicking on *Logic Student Assignments and Scores* on the LOGIC 2010 PORTAL.

[Note that when you authenticate, you will be asked to Select the Course. Please select: **UCSD – Philosophy 120 2012F** (not 2012SS).]

[Note also that you must register as a user by downloading the program to your computer before you are able to gain access to the homework assignments.]

Homework assignments **MUST** be submitted **OVER THE INTERNET** to the Logic 2010 database directly. [So make sure that your computer is connected to the internet before you submit your homework to the database.] Your work will be automatically recorded in the database.

Instructions for using the program and for submitting homework to the database are available once you start running the program. Please read the relevant *Logic 2010 Documents*. To get access to the *Terrytext*, go to the Assignment View Student Website (this is the webpage you get by clicking on *Logic Student Assignments and Scores* on the LOGIC 2010 PORTAL), click on *Documents*, and then, on the next webpage, click on *Program Documents*. The *Program Documents* page contains links to all the chapters of the *Terrytext*, as well as links to pages that explain how to use the various modules in the computer program.

Blue Books

You will need to bring blue books to the mid-term and final examinations. The exams are open-note, open-book.

Important Notes

* The Academic Honor Code must be observed in this course. Anyone caught cheating will receive an automatic F in the course, and will be referred to the Council of Deans for the heaviest possible penalty.

*** Laptops and other electronic devices may be used in class as a means of accessing the Logic 2010 computer program and as a means of taking notes on the lecture, but may not be used for any other purpose.**

* If accommodations are needed for a disability, please notify me as soon as possible.

* If any course requirement conflicts with a religious requirement or university-related obligation, please notify me as soon as