

Course Guide

PHIL2510 Logic

Course description

This is an introduction to formal logic. We will review sentential and predicate logic. Topics include truth tables, trees for sentential logic, model theory, trees for predicate logic, identity, and functions, definite descriptions, and free logic. Students are expected to know some elementary formal logic before enrolling in this course. In preparation, students can take PHIL1005, or PHIL2006, or else students can study the online material on logic produced by the department (see <http://philosophy.hku.hk/courses/201112/phil1068/index.html>).

Instructor

Dan Marshall

Office: 10.08 Run Run Shaw Building

Email: danm@hku.hk

Office hours: After seminars, 2.30-3.30pm Thursdays or by appointment

Mode of delivery

There will be 11 two hour seminars. Seminars will take place on Mondays at 12.30pm-2.30pm in room CPD LG.59, with the first seminar on 2 September. There will also be a number of one hour workshops. The dates and times of the workshops will be organised in the first two weeks of semester. The workshops will discuss exercises set in class. Participation in the workshops is optional.

Required Text

All students must have a copy of Greg Restall's *Logic: An Introduction*. This book can be bought from the HKU bookshop.

Course website

To find the course website, go to the philosophy department website and click on courses.

The course website will contain or have a link to:

- i) Seminar handouts
- ii) Assignments
- iii) Important dates
- iv) Other important information.

Provisional Course Schedule

Date of Seminar	Topics	Required Reading
2 September	Propositions and Arguments	Restall, Ch 1
9 September	Connectives and Truth Tables	Restall, Ch 2-3
16 September	Trees of Sentential Logic 1	Restall, Ch 4
23 September	Trees of Sentential Logic 2	Restall, Ch 4
30 September	Introduction to Predicate Logic	Restall, Ch 8-9

Course Guide

7 October	Models for Predicate Logic	Restall, Ch 9
14 October	Reading Week – No Seminar	
21 October	Trees of Predicate Logic 1	Restall, Ch 10
28 October	Trees of Predicate Logic 2	Restall, Ch 10
4 November	Identity and Functions	Restall, Ch 11
11 November	Further Topics	Restall, Ch 12-13
18 November	Catch Up and Revision	
25 November	Exam	

The details of the above course schedule are provisional and will probably change to some degree. Changes will be announced in seminars and on seminar handouts available on the course website.

Course objectives

This course aims to introduce both sentential and predicate logic.

It also seeks to provide training in:

- i) Critical thinking and problem solving
- ii) Argumentative techniques in mathematical logic

Student Outcomes

- i) Understand and describe the systems of sentential logic and predicate logic
- ii) Understand the use of trees as logical proofs
- iii) The ability to solve problems in mathematical logic regarding these logical systems
- iv) Understand some of the philosophical issues logic raises

Assessment

Assignments

There will be three assignments consisting of logical problem sets. Each of these assignments will contribute 15% towards your final mark.

Exam

There will be a two hour exam consisting of logical problem sets. The date of the exam is provisionally scheduled for 12.30pm-2.30pm 18 November in room CPD LG.59. The exam will contribute 55% towards your final mark.