Introduction to Logic Spring 2010
01:730:201:03

Instructor

James Simmons
Seminary Place
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Location and Times

Monday & Wednesday, 2.15pm-3.35pm, Loree 020.

James Simmons' Office Hours: To be announced.

Overview

This is a first course in logic. No previous knowledge of logic, philosophy or mathematics is required. The course will provide an introduction to the central concepts of logic and the language of first-order logic (FOL). We will learn how to construct formal proofs in both propositional and quantificational logic.

Goals

By the end of the course, you should be able to perform simple translations from English to FOL; to understand and apply the core concepts of validity and soundness; to evaluate complex arguments for validity; and to construct formal proofs in both propositional and quantificational logic.

Text

Barwise, J. & Ethchemendy, J. [2007] *Language, Proof and Logic*, CSLI Publications.

The textbook contains a software package and a non-transferable registration ID# for an online grading system that we will be using throughout the semester. As such, each student enrolled in the course will have to buy a *new* copy of the textbook package. Apologies...

Attendance

There is no attendance policy. However, I will not spend long periods of time out of class explaining material for students who are not assiduous attendees.

Evaluation

Your grade will be determined as follows:

Homework Assignments: 30%
Midterm Exam: 30%
Cumulative Final Exam: 40%

Homework assignments will be announced in class and by e-mail. Make sure you regularly check your email. Late homework assignments will have 5 points deducted for each day the work is late.

Each piece of work will be graded out of 100 points, with grades relating to point scores as follows:

A =   90 - 100
B+ =   85 - 89
B =   80-84
C+ =   75 -79
C =   70 - 74
D =   60 - 69
F =   0 - 59

Make up exams will be given only in exceptional circumstances.

Schedule

Wednesday January 20: Introduction
Reading: pp. 1 - 15, pp. 19 - 31.

Monday January 25: Atomic Sentences
Reading: pp. 19 - 31.

Wednesday January 27 & Monday February 1: The Logic of Atomic Sentences
Reading: pp. 41 - 66.

Wednesday February 3: The Boolean Connectives
Reading: pp. 67 - 89.

Monday February 8 & Wednesday February 10: The Logic of Boolean Connectives
Reading: pp. 93 - 117.

Monday February 15: Methods of Proof for Boolean Logic
Reading: pp. 127 - 140.

Wednesday February 17 & Monday February 22 : Formal Proofs and Boolean Logic
Reading: pp. 142 - 175.

Wednesday February 24: Conditionals
Reading: pp. 176 - 197.

Monday March 1 & Wednesday March 3: The Logic of Conditionals
Reading: pp. 198 - 213.

Monday March 8: Midterm Exam on Propositional Logic

Wednesday March 10 & Monday March 22 : Introduction to Quantification
Reading: pp. 227 - 251.

Wednesday March 24 & Monday March 29: The Logic of Quantifiers
Reading: pp. 257 - 279.

Wednesday April 31 & Monday April 5: Multiple Quantifiers
Reading: pp. 289 - 308.

Wednesday April 7 & Monday April 12: Methods of Proof for Quantifiers
Reading: pp. 319 - 338.

Wednesday April 14, Monday April 19 & Wednesday April 21: Formal Proofs and Quantifiers
Reading: pp. 342 - 363

Monday April 26: Catch Up

Wednesday April 28 & Monday May 3: Review

May 8, 12pm - 3pm: Final Exam

Schedule is subject to change.