

PHILOSOPHY 201

Introductory Logic

Fall 2012

Professor Shamik Dasgupta

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Office hours: TBD

This class is an introduction to modern logic. The focus will be on technical material but we will discuss various philosophical issues that arise along the way.

Preceptors:	Michaela McSweeney	mmcsween@princeton.edu
	Cory Nichols	cmnichol@princeton.edu
	Joshua O'Rourke	jsorourk@princeton.edu

Classes:

- 2 lectures per week, 12.30 – 1.20pm T/Th in Thomas Lab 003
- 1 precept per week (times and locations to be arranged during the first week of semester)

Text: *The Logic Book*, 5th edition, by Merrie Bergmann, James Moor and Jack Nelson. McGraw Hill 2009.

Assessment:

- 5 problem sets: 11% each = 55%
 - Late problem sets cannot always be accepted since we will sometimes discuss the answers in class. When accepted, late problem sets forfeit 5% of the marks for each day late.
- Midterm exam (in class Thursday October 25th): 15%
- Final exam: 25%
- Precept participation: 5%

SYLLABUS

Part I: Introduction to Logic

Topic 1: Informal Logic

- Chapter 1, sections 1.1 – 1.5, 1.7.

Part II: Sentential Logic (SL)

Topic 2: SL Syntax

- Chapter 2, section 2.4
- Chapter 6, section 6.1 (optional)

Topic 3: SL Translations

- Chapter 2, sections 2.1 – 2.3

Topic 4: SL Semantics

- Chapter 3, sections 3.1 – 3.5

Topic 5: SL Proof Theory

- Chapter 5, sections 5.1 – 5.3

Topic 6: SL Soundness and Completeness

- Chapter 6, sections 6.3 – 6.4

Topic 7: Philosophy of Logic I: Knowledge of Logic

- Paul Boghossian, “Knowledge of Logic” (on Blackboard)

Part III: Predicate Logic (PL)

Topic 8: PL Introduction and Syntax

- Chapter 7, 7.1 – 7.5

Topic 9: PL Translations

- Chapter 7, 7.6 – 7.9

Topic 10: PL Semantics

- Chapter 8, 8.1 – 8.4

Topic 11: PL Proof Theory

- Chapter 10, 10.1 – 10.2, 10.4

Topic 12: Philosophy of logic II: Philosophical Applications of PL (axiomatization of arithmetic, science without numbers)

Topic 13: Philosophy of Logic III: Deviant Logics

- Rosanna Keefe and Peter Smith, Introduction to “Vagueness: A Reader” (on Blackboard)
- W.V.O. Quine, Chapter 6 of “Philosophy of Logic” (on Blackboard)