Philosophy 29420/39420

Non-classical Logic

Spring 2011

TTH 9:00-10:20

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Course Description

We will study various non-classical logics, including (non)-normal and first-order modal logic, intuitionistic logic, and multi-valued logic. Throughout, we will focus on trying to understand the philosophical motivations behind non-classical logics, and on gaining insights into the analytic virtues (and vices) that come with them. The course also offers a friendly introduction to soundness and completeness proofs, which will be of relevance for many advanced classes in logic.

Books

The following text is required for the course, available for purchase at the Seminary Coop Bookstore (in the basement of 5757 University Ave.):

— Priest, *An Introduction to Non-Classical Logic: From If to Is*, Cambridge: Cambridge University Press (2008)

The above book as well as some other useful material are on reserve at Regenstein. Any additional material will be made available through the course's Chalk website.

Course Requirements

There will be four homework assignments and one final exam (2 hours):

First homework	due April 19th, in class	worth 20%
Second homework	due May 3rd, in class	worth 20%
Third homework	due May 17th, in class	worth 20%
Fourth homework	due May 31st, in class	worth 20%
Final Exam	June 9th, 8:00-10:00	worth 20%

Homework assignments will be uploaded to the Chalk site in advance of the due dates. Late homeworks will be docked a grade per day (e.g., B+ to B) unless you have received approval ahead of time. Room assignments for final exams will be announced by the Registrar during the quarter and can be obtained at `http://registrar.uchicago.edu/courses/final-exams.shtml`. Homework assignments as well as the final exam are cumulative.

Homework assignments will be returned and discussed during sections, which meet biweekly beginning the second week of the quarter.

Collaboration on homework exercises is permitted but students should by no means hand in someone else's work as their own.

Students may, if they wish, opt to write a term paper in place of the final examination. The topic must be approved ahead of time and suitably relate to the issues discussed in class.

Roadmap

The following schedule provides an overview over the topics that we will address during this semester as well as the assigned readings. Readings may change as the semester goes on. Updated versions of this syllabus will be posted on Chalk as changes are made.

All readings are from Priest's *An Introduction to Non-Classical Logic: From If to Is*. You are encouraged (though not required) to study the additional readings suggested at the end of each chapter.

Date	**Topic**	**Readings**
Week 1	Classical Propositional Logic	Mathematical Prolegomenon, Chapter 1
Week 2	Basic Modal Logic	Chapter 2
Week 3	Normal Modal Logics	Chapter 3
Week 4	Nonnormal Worlds	Chapter 4
Week 5	Conditional Logics	Chapter 5
Week 6	Intuitionistic Logic	Chapter 6
Week 7	Many-valued Logics	Chapter 7
Week 8	Classical and Free Logic	Chapters 12–13
Week 9	Quantified Modal Logic	Chapters 14–15
Week 10	Necessary and Contingent Identity	Chapters 16–17