PHI 2250 Basic Logic HC W6 Mon/Tues/Thurs 3:30 – 4:20pm

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Office Hours: Monday, Tuesday, Thursday 2:30-3:30 p.m., and by appointment

Textbook: *Formal Logic*. By Paul A. Gregory. (Broadview Press, 2017).

Course Description: A two term study of sentential and predicate logic, the course trains students in the use of procedures and systems (trees, counterexamples, natural deduction, axiomatic systems) to determine logical properties and relations. Students will gain a basic understanding of some metatheoretical concepts including soundness and completeness.

Course Goals and Methods: Through lectures, readings, and exercises, students will learn how to construct formal systems of propositional and predicate logic. They will be able to prove some metatheorems about such systems, and will understand how to make and evaluate natural deduction and tree proofs for propositional and quantified schemata.

Grading: 1. Four homework assignments @ 5%. 2. Six quizzes @10% (Best five scores chosen). 3. Final test 30%.

NB: Late homework will be penalized 2% per day absent a documented medical excuse.

Week	Term I Topics
1-2	Introduction to logic: Basic notions
2-3	Ch. 1-2: Truth functional connectives
4-5	Ch. 2-3: Semantics for S, truth tables, validity, ***HW 1 (***Sept. 25***)***, ***Quiz 1*** (Oct.2)
7-8	Ch 3-4: Truth trees for sentence logic, ***Quiz 2*** (Oct. 22) **(Wk 6: Break)**
9-12	Ch 4 : Natural Deduction, ***Quiz 3*** (Nov. 15)
13-14	Ch 5: Intro to quantificational logic ***HW 2*** (Dec. 6)

	Term II Topics
1-3	Ch 5: Quantificational logic, symbolization and syntax
4-5	Ch 6: Semantics for quantificational logic ***HW 3*** (Jan. 21), ***Quiz 4*** (Jan 24)
6-8	Ch 7: Derivations for predicate logic ***Quiz 5*** (Feb. 12), **(Wk 7: Break)**
9-11	Ch 8: Basic set theory ***Quiz 6*** (Mar. 14)
12-14	Ch 9: Modal logic ***HW 4*** (April 4)

The Appendix to Course Outlines is posted on the OWL course site.