PHIL 3350: Contemporary Logic  
Spring 2015 Syllabus  
Instructor: Dr. Stephen Striby  
Office: Sullivan 107, 713-525-3184  
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Office Hours: M, W, F: 11:30-1:30  
T, Th: 8:30-9:30, 12:30-1:30

Course Description: This course aims to introduce students to the significant philosophical advances made in the past 150 years in the field of logic. Some of this material can be grouped under the rubric of symbolic logic, but this course will go beyond the field of mathematical logic by discussing theories of modal and tense logic, and, more generally, by discussing why 20th-century philosophers see such formal logic as the most suitable tool for the discovery and development of logical truth.

Course Content: We will begin the course with a discussion of informal fallacies that infect human discourse in many ways. We will move from there to a study of fundamental logical concepts that have both a technical meaning and are commonly found in everyday discourse. Next, we will work on identifying arguments in a variety of sources, and translating arguments into their valid or invalid formal structures, guided by the rules of inference of symbolic logic. From there, an in depth study of modern symbolic logic will ensue, including both propositional and quantificational logic. We will complete the course by examining modal and tense logic.

Course Learning Outcomes: By the end of the course, the successful student will be able to:

1.) identify and explain arguments contained in various forms of literature with greater understanding and precision, such that the student’s reading comprehension skills will have improved considerably,
2.) identify valid and invalid argument forms, and reason and argue more soundly and effectively through a developed habit of thinking more clearly,
3.) appreciate the complexities and usefulness of the contemporary logical system developed in the last 150 years,
4.) understand and identify common formal and informal fallacies that occur in scientific, political, philosophical, and everyday discourse, and 5.) think and speak more effectively and clearly.

All of these outcomes help to advance Goal Five of the Core Curriculum Student Learning Outcomes, which calls students to “develop competence in critical thinking, critical reading, effective writing, and oral communication.”

**Grading and Attendance:** There will be two tests, each worth 15% of the final grade, and a comprehensive final exam worth 20% of the final grade. There will be four quizzes interspersed throughout the semester. Altogether, these quizzes will be worth 20% of the final grade. The remaining 30% of the student’s grade will be based on the completion, and discussion in class, of various logical exercises. For the possibility of an absence being excused, the student must contact Dr. Striby by the end of the day of the absence, and have a sound reason for his or her absence. Students may gain or lose up to six percentage points based on their attendance and participation in class discussions.

**Grading scale:** A: 94-100, A-: 90-93: A grade of A reflects excellent work on the part of the student. To earn a grade of A, the student must excel on all or most of the assignments and tests, show considerable understanding of concepts and arguments presented in class and in the readings, and have good attendance and participation. B+: 87-89, B: 83-86, B-: 80-82: To earn a grade in the B range, the student must complete all of the assignments and tests, show good understanding of the aforementioned concepts and arguments, and have good attendance and participation. C+: 77-79, C: 73-76, C-: 70-72: To attain a grade of C, the student must complete all of the assignments and tests, show some understanding of concepts and arguments, and consistently attend class. D+: 65-69, D: 60-64: To attain a grade of D, the student must complete the assignments and tests, show some understanding of concepts and arguments, and show some consistency in attending class. F: Below 60: A grade of F is given when the student fails to complete assignments, fails to show any consistency in attending class or in understanding the material, or cheats on a test.
Course Calendar

Week One (Jan. 13, 15): What is logic? Informal Fallacies
Week Two (Jan. 20, 22): Informal Fallacies; Symbolizing Arguments
Week Three (Jan. 27, 29): Complex Arguments; Quiz #1 (29th) Informal Fallacies
Week Four (Feb. 3, 5): Symbolic Logic’s Rules of Inference
Week Five (Feb. 10, 12): Quiz #2 (10th) Rules of Inference; Replacement Rules
Week Six (Feb. 17, 19): Truth Tables for the Rules; Review for Test
Week Seven (Feb. 24, 26): TEST#1 (24th); Simple Proofs with the Rules
Week Eight (Mar. 3, 5): More Formal Proofs

Spring Break

Week Nine (Mar. 17, 19): Complex Formal Proofs
Week Ten (Mar. 24, 26): Indirect Proofs; Quiz #3
Week Eleven (Mar. 31): Universal and Existential Quantifiers
Week Twelve (Apr. 7, 9): Review for Test; TEST#2 (9th)
Week Thirteen (Apr. 14, 16): Causal and Scientific Reasoning
Week Fourteen (Apr. 21, 23): Modal Logic; Quiz #4
Week Fifteen (Apr. 28, 30): Tense Logic; Review for Final Exam

FINAL EXAM: Tuesday, May 5th, 12:00