1. Catalog Description
   a) PHI 3520
   b) Necessity, Possibility, and Existence
   c) 3-0-3
   d) Offered Fall of odd-numbered years
   e) Necessity
   f) A historical survey of concepts and reasoning techniques about necessity, possibility, and actual existence. WI
   g) Prerequisites: PHI 1900, or permission of the instructor.
   h) Initial term of course offering: Fall 2005

2. Student Learning Objectives and Evaluation
   a) The student learning objectives are:
      • Students will demonstrate ability to apply techniques of modal reasoning by constructing formal arguments involving necessity and possibility, and by formally evaluating modal arguments.
      • Students will state common modal inference patterns from the history of philosophy.
      • Students will define technical terminology from modal reasoning in order to demonstrate an understanding of the central concepts of modal reasoning.
      • Students will state important applications of modal concepts from diverse writers and periods.
      • Students will list and describe the major schools of thought concerning modality, and the major historical developments in the philosophy of modality.
   b) Student comprehension will be evaluated through two essay exams, a 4-6 page exegetical paper, and short taked-home problem sets. While the problem sets will focus on inference patterns and logical techniques, the longer written assignments will emphasize textual and philosophical comprehension of important works, and application of the concepts and techniques of modal logic to the classic problems of philosophy. Grading will be based on two essay exams (30 points each), one short paper (with preliminary draft) (20 points for paper + 10 for preliminary rough draft), and six technical problem sets (5 points each).

<table>
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<tr>
<th>Construct and evaluate formal modal arguments</th>
<th>Midterm Exam (25%)</th>
<th>Final Exam (25%)</th>
<th>Short Paper (25%)</th>
<th>Problem Sets (25%)</th>
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<td>State common modal inference patterns from history of philosophy</td>
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<td>Define technical terminology from modal reasoning</td>
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<td>State important applications of modality</td>
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<td>List and describe major schools and historical developments</td>
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   c) This course will be delivered in traditional format.
   d) This will not be a 4000 level course.
   e) The course will be Writing Intensive. The definition of “writing intensive course” is as follows: In such courses several writing assignments and writing activities are required. These assignments and activities, which are to spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses the quality of students’ writing should constitute no less than 35% of the final course grade. The present course satisfies these criteria in that both exams, and the short paper, are written essay assignments, totaling 75% of the course grade. In addition, students submit a rough draft of the short paper, which is returned with comments before they submit the final version of the paper.
3. Outline of the Course

**The Principle of Plenitude, and the Shift to Non-Actualized Possibilities**
Week 1, class 1: Aristotle, from: On Interpretation, Prior Analytics
Week 1, class 2: Aristotle, from: Prior Analytics, Metaphysics

Week 2, class 1: William of Ockham, from Summa of Logic
Week 2, class 2: William of Ockham, from Summa of Logic

**Iterated Modality and De Re Modality**
Week 3, class 1: Descartes, from: Meditations and Sixth Set of Replies; Leibniz, from Discourse on Metaphysics
Week 3, class 2: Leibniz, from Discourse on Metaphysics

Week 4, class 1: Leibniz, from Discourse on Metaphysics and Correspondence w/ Arnauld
Week 4, class 2: Leibniz, from New Essay on Human Understanding

**Rationalist and Empiricist Views on Counterfactuals and Individual Essences**
Week 5, class 1: Leibniz, from the Leibniz-Clarke Correspondence
Week 5, class 2: Leibniz, from the Leibniz-Clarke Correspondence

Week 6, class 1: Locke, from the Essay Concerning Human Understanding
Week 6, class 2: Leibniz, from New Essays on Human Understanding

**Non-Existing Objects: Pro and Con**
Week 7, class 1: Meinong, "Theory of Objects," Sects.1-4
Week 7, class 2: Frege, "On Sense and Reference"

Week 8, class 1: Russell, "Descriptions"
Week 8, class 2: Russell, "Descriptions"

**A 20th Century Empiricist Case Against Modality**
Week 9, class 1: Quine, "Two Dogmas of Empiricism"
Week 9, class 2: Quine, "Two Dogmas of Empiricism"

Week 10, class 1: Quine, "Necessary Truth"
Week 10, class 2: Quine, "Necessary Truth"

**A 20th Century Semantic Case for Modality and Essentialism**
Week 11, class 1: Kripke, Naming and Necessity, Part I
Week 11, class 2: Kripke, Naming and Necessity, Part I

Week 12, class 1: Kripke, Naming and Necessity, Part II
Week 12, class 2: Kripke, Naming and Necessity, Part II

Week 13, class 1: Kripke, Naming and Necessity, Part III
Week 13, class 2: Kripke, Naming and Necessity, Part III

**Non-Actual Objects: Pro and Con**
Week 14, class 1: Lewis, excerpts from Counterfactuals
Week 14, class 2: Stalnaker, "Possible Worlds"

Week 15, class 1: van Fraassen, excerpts from The Scientific Image
Week 15, class 2: van Fraassen, excerpts from Laws and Symmetry

4. Rationale

a) While the techniques of Logic are, in principle, taken to form an all-purpose ‘toolbox’ for constructing and evaluating arguments in any field in Philosophy, in practice these tools are taught in isolation, in classes focusing in an ahistorical manner on formal techniques alone. Furthermore, such attempts as are made to explore “applied” Logic focus almost entirely on informal – ultimately ‘intuitive’ – assessment of reasoning, and unrealistically simplified problems of limited intrinsic interest. By instead tracing the development of the concepts and basic inference techniques concerning necessity, possibility, and actuality in their original philosophical contexts, their importance is illustrated in a manner not available in a purely technical, formal course. In addition, questions concerning the possibility, or manner, of applying such reasoning techniques and concepts to philosophical purpose are put to rest at once, as the course is itself a series of case-studies on how issues of necessity, possibility, and existence undergird argumentation on, e.g., God’s existence, the nature of the soul, ‘absolute’ vs. ‘relativistic’ models of time and space, causation, scientific laws, and linguistic meaning and interpretation. By mastering the basic concepts and
techniques of such "modal" reasoning, the student will acquire an enhanced competence in applied philosophical techniques, in a variety of areas of genuine importance.

b) The course will involve reading material and workload comparable to other Philosophy courses on the 3000-level. Because the focus of the course is a family of logical concepts and forms of inference, a prior familiarity with the fundamentals of logical inference, as presented in PHI 1900, is important.

c) The course will, by its very nature, inevitably intersect with topics from other philosophy courses: arguments concerning God's existence from Philosophy of Religion; discussions of space and time from the Philosophy of Science; theories of linguistic meaning from Analytic philosophy; and, of course, historical case studies and authors possibly also considered in courses on Ancient, Medieval, and Modern philosophy. But by virtue of such a wide array, the overlaps with any one course will be very limited. The central motivation of this course is to trace out a unifying theme in all these examples – concepts and inferences concerning modality – which is addressed at best tangentially in other courses, if at all. While courses with other focuses can afford at best an occasional brief excursus on the types of reasoning at work in these case studies, this course is devoted entirely to development of modal reasoning, which can then, by its nature (and like logical techniques generally), be applied to a wide variety of topics in Philosophy.

d) The course will satisfy the Metaphysics Component in the revised requirements for the Philosophy major.

5. Implementation
   a) Originally assigned to Brian Beakley
   b) No additional costs will be incurred by students.
   c) Texts:
      Gottfried Wilhelm Leibniz, Philosophical Essays, ed. Ariew and Garber (Hackett Press, 1989)
      Saul Kripke, Naming and Necessity (Harvard University Press, 1980)
      (Additional handouts will be supplied in class.)

6. Community College Transfer
   A community college course will not be judged as equivalent.

7. Date approved by the department or school ___ December 5, 2003 ___

8. Date approved by the college curriculum committee ___ April 7, 2004 ___

9. Date approved by CAA ___ December 9, 2004 ___