

Modal Logic and Metaphysics

Geoffrey Hall

E-mail:
Office Hours:
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Class Hours:
Class Room:

Course Description

This course is an introduction to modal logic, possible-world semantics, and associated philosophical issues. We will start by covering the basics of modal logic starting with propositional modal logic and then moving on to quantified modal logic. We will then delve into the philosophical controversies surrounding modal logic and modality. Topics to be covered include the nature of possible worlds, whether existence is necessary or contingent, the relationship between essence and modality, the epistemology of modality, and several other areas in addition.

Course Materials

- All readings will be made available on the course website.
- I will provide a handout each day on the reading containing an overview of the main arguments and positions of the paper assigned for that day. A PDF copy of this will be sent to you after each class period.
- In the first part of this course we will use Ted Sider's "Logic for Philosophy" as our text.

Course Objectives

This course has both a technical and philosophical component. Successful students will gain competency in both of these areas. Here are some particular goals I am looking for.

1. Investigate philosophical questions about the nature of modality our knowledge of it, and the relationship between modality and essence, identity and existence (among other things).
2. Improve their ability to comprehend, dissect, and evaluate philosophical arguments.
3. Improve their ability to articulate philosophical ideas/arguments clearly and persuasively in their own writing.
4. Improve their ability to read and understand difficult texts.
5. Improve one's competence in formal logic (in particular in propositional modal logic and quantified modal logic).

Grading

Due to the technical nature of the material covered I will not require a final paper for this course. Instead you will be evaluated on the basis of participation, TPQs and three blue book examinations. You have the option to write a final paper in lieu of the final exam, but you **must** get approval from me beforehand. If you choose this option, you

should come to me with a selection of possible research topics at least a month before the end of the semester. The final paper should be approximately 10-20 pages depending on the nature of the proposal.

Final grades will be determined by 7 components:

- Participation: 15%
- TPQs: 25%
- Blue Book Exam 1: 20%
- Blue Book Exam 2: 20%
- Blue Book Exam 3 20%

The papers and exams are required, in the sense that failure to complete them will result in a failing grade.

Participation

You are expected to take an active role in class discussion. In order to get full participation credit you must do the readings every week before class, make a comment every class and contribute positively to the overall conversations. Throughout the course there will be small in-class and take-home assignments. These are ungraded and are factored into participation.

TPQs

You will be required to submit two questions each week prior to the first class period of the week. The questions must be submitted at least 8 hours before the class period for which they are due. The questions will be submitted on a google document that will be shared with you. The questions must be “Thought Provoking Questions” in the following sense: (i) they must demonstrate that you have actually engaged with the text. If I can settle the question by a quick google search or by looking briefly through the text itself, then you have not done this. (ii) they should engage with the main arguments and positions that are talked about within the text. You should be looking for parts of the argument that you do not understand or that seem to you to be ill supported. Spend some time trying to work it out for yourself before submitting the question. Some weeks, I may ask that you attempt to write out the main argument of the paper in standard form in lieu of the TPQ (the term ‘argument in standard form’ will be explained in class.)

Bluebook exams

There will be three blue book exams on TBD, TBD and TBD. The first exam mostly be matter of recalling definitions but will also include some philosophical content. The latter two exams will require you to do some philosophy. Before each exam you will be given a list of possible questions. I will choose four questions to include on the exam and you will then be required to provide essay responses to three of them.

Tentative Reading Schedule

0.1 Modal Logic

Week 1 Review of Propositional Logic

Sider 2.1-2.3.

Week 2 Propositional Modal Logic.

Sider 6.1-6.3.1; Sara Negri “Proof Theory for Modal Logic”

Sider 6.3-6.3.3

Week 3 Review of predicate logic.

Sider 4.1-4.3; Jane Bridge *Beginning Model Theory* (excerpts)

Sider 5.1-5.3; Jane Bridge *Beginning Model Theory* (excerpts)

Week 4 Quantified Modal Logic.

Sider 9.1-9.3; Williamson *Modal Logic as Metaphysics* (excerpts)

Sider 9.4; Williamson *Modal Logic as Metaphysics* (excerpts)

Week 5 Quantified Modal Logic Continued.

Sider 9.6.

Exam.

0.2 De Re Modality

Week 6 Quine's Objections to QML.

W.V. Quine, "Three Grades of Modal Involvement"

Kit Fine, "The Problem of De Re Modality" (excerpts)

Week 7 The Barcan and Converse Barcan Formulas.

Ruth Barcan Marcus, "Modalities and Intensional Languages"

Williamson, *Modal Logic as Metaphysics* (excerpts)

Week 9 Necessitism and Contingentism.

Williamson *Modal Logic as Metaphysics* Ch. 1; Williamson, "Bare Possibilia"; Sonia Roca-Royes "Essentialism vis-a-via Possibilia, Modal Logic, and Necessitism."

Stalnaker, *Mere Possibilities* (excerpt); Meghan Sullivan "Modal Logic as Methodology."

Week 10 Counterpart Theory

3/25 David Lewis, "Counterpart Theory and Quantified Modal Logic."

3/27 Delia Graff Fara, "Dear Haecceitism"

0.3 Theories of Modality and Possible Worlds

Week 11 Modal Realism

4/1 David Lewis, *On the Plurality of Worlds* (excerpts)

4/3 Dorr, "How to be a modal Realist"

Week 12 Modal Ersatzism and Modal Fictionalism

4/8 Lewis, *On the Plurality of Worlds* (excerpts); van Inwagen "Two Concepts of Possible Worlds"

4/10 Gideon Rosen, "Modal Fictionalism"; Berit Brogaard "Two Modal-Isms: Fictionalism and Ersatzism."

Week 13 Conventionalism

4/15 Ted Sider, "Reductive Theories of Modality" (excerpt); Gillian Russell "Indexicals and Sider's Neo Linguistic Account of Necessity"

4/17 Margot Strominger, "Modal Humeanism and Arguments from Possibility"

Week 14 Combinatorialism

David Armstrong, *A Combinatorial Theory of Possibility* (excerpts); Jessica Wilson "What is Hume's Dictum, and Why Believe it?"

Jennifer Wang, "Fundamentality and Modal Freedom," Andrew Bacon, "Logical Combinatorialism" (excerpt, optional)

Week 15 Primitivism

Jennifer Wang, "From Combinatorialism to Primitivism"

Kit Fine, "Prior on the Construction of Worlds and Instants"

Week 16 Modal Epistemology

4/29 Ammie Thomasson, "How can we come to Know Metaphysical Modal Truths?"

5/1 Margot Strominger, Juhani Yli-Vakkuri, "Knowledge of Objective Modality"

Week 16 Final Exam