

Advanced Logic

Phil 351A · Prof. Dunn

Spring 2013
MWF 2:50-3:50
East College 015
DePauw University

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Description

This course extends the study of symbolic logic beyond what is covered in Phil 251 (and other introductory logic courses). We will start with a deeper investigation of sentential logic and predicate logic with a special focus on model theoretic semantics. This will allow us to construct metalogic proofs about these logical systems (for instance, soundness and completeness proofs). We will then investigate extensions of these logical systems. Topics will include identity, function signs, definite descriptions, generalized quantifiers, non-classical logics, modal logics, and counterfactuals.

Book

► *Logic For Philosophy*, Theodore Sider, Oxford. (available at *Eli's Books* on the square)

Other materials will be made available to you online through Moodle.

Grading

Homework: 40%

Midterm Exam: 20%

Final Exam: 25%

Paper: 15%

Course Requirements

Homework Assignments

Regular practice is key to mastering the topics we will cover in this class. Accordingly, there will be regular homework assignments for this course. A complete list of the homework assignment due dates can be found on the course schedule which is linked from the course website. Homework assignments are due by 5:00 pm on the day they are due.

You will notice a steep increase in the difficulty of the homework assignments in this class compared to Phil 251. Homework is also a larger portion of your grade in this class than in Phil 251.

Late homework assignments will not be accepted. There are two reasons for this. First, I will be posting answers to some (not all) homework questions. Late homework assignments prevent me from posting the answers, which is unfair to other students who have turned in their homework on-time. Second, late homework assignments prevent me from grading them in the most efficient manner. If you think there

are extenuating circumstances that warrant an exception to this policy, you should contact me **before** the homework assignment is due.

Please staple your homework assignments. Ripped edges and illegible handwriting are signs of sloppiness, so avoid both. I strongly encourage you to type your homework assignments whenever possible.

Midterm Exam

The Midterm Exam for this course will occur in the week before Spring Recess. It is tentatively scheduled for **March 18**, though it is possible that it will move to a different day in that week.

I plan for the Midterm Exam to have both an in-class and a take-home component. This, however, is subject to change. I will, however, let you know at least a week in advance how the exam will be structured.

Unlike Phil 251, there is no opportunity to retake the exam.

Final Exam

The Final Exam for this course will occur in Finals Week. The University has scheduled our exam for **May 15, 1-4 PM**.

I plan for the Final Exam to be cumulative.

The Final Exam will be either all in-class or all take-home. I have not yet decided which. I will, however, let you know at least a month in advance how the Final Exam will be structured.

Paper

The paper for this course is a medium-length paper (5-7 pages) on some topic related to the different logical systems we investigate throughout the semester.

Your paper is **not** supposed to be about the history of logic, unless the history of logic bears in some important way on the content of the topic within logic you are writing about.

You may find it difficult to write about logic in this way. The source of this difficulty is usually the following:

1. You cannot think what there could possibly be to say about logic beyond what is said in our textbook. It would be as if I told you to write a paper about calculus. Sure, you could write a paper about the *history* of calculus, but what is there to say about calculus itself?

But sometimes the source of the difficulty is slightly different:

2. You have an idea what you want to write about, but don't see how you could possibly write for 5-7 pages about your topic. Some of the claims you want to make may seem so obvious that it is not even clear how one could give and evaluate arguments for those claims. It would be as if I told you to write a paper explaining why the sentence 'Some people are not mortal' is equivalent to the sentence 'Not all people are mortal.' What is there to say? Isn't it just obvious?

To address the first difficulty, I will be handing out a list of ideas to get you thinking about a topic. I'm also happy to meet with you to discuss ideas you might have.

To address the second difficulty, it is often useful to find someone who actually disagrees with the claim that you want to make. I am happy to meet with you to help you track down papers or book chapters that can be useful in this way.

Other Requirements

You should take control of your experience in this course: what you get out of the course will largely be a function of what you put in to it. If you are falling behind or are confused about something, please make arrangements to meet with me. I really like the material we're covering in this course, and I'm on campus every day. So come talk to me about it!

There is no official participation requirement, but participation is strongly correlated with success in this class. It is in your interest to regularly be in class ready to be an active participant.

Things You Can Expect From Me

I will give clear and prompt feedback on your homework.

I will assist you in choosing a paper topic, finding outside sources, and editing your paper.

I will be available to discuss the material outside of class, whether over email, during office hours, or at other times.

Special Considerations

DePauw University is committed to providing equal access to academic programs and university-administered activities and reasonable modifications/accommodations to students with disabilities in compliance with the Americans with Disabilities Act (ADA) of 1990, as amended in 2008. Any student needing special accommodations due to a disability should contact the Coordinator of Student Disability Services, Pam Roberts, 302 Harrison Hall or call (765) 658-6267. It is the responsibility of each student to discuss implementation of approved modifications/accommodations with each faculty member and/or staff member within one week of the date of receiving a modification/accommodation approval memo or within the first two weeks of the academic semester.

Academic Integrity

Academic integrity is very important, and violations are serious offenses, which I take very seriously. There is a clear Academic Integrity Policy that can be found here:

<http://www.depauw.edu/univ/handbooks/dpuhandbooks.asp?ID=101parentid=100>

It is your responsibility to read the university policy. If you are unclear about what constitutes a violation of academic integrity, it is your responsibility to contact me with any questions so that you are clear about it. Ignorance is not an excuse. The *minimum* penalty for violations of Academic Integrity is a 0 on the relevant assignment and a further reduction in your overall grade.