PHIL 107: Introduction to Logic

Important Details:

Class meets Monday, Wednesday and Friday 1:15-2:30 in DE 305

Your host: Prof. Michael P. Wolf
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Office Hours: Monday and Wednesday 10:00-12:00 and by appointment

Required Texts

Some additional materials, also required, will be handed out in class.

What Is This Course About?
Our aim is to learn something about the basics of logic in this class. That is, we are going to be looking at various methods and systems for representing and analyzing the structure of our claims and beliefs and how they relate to one another to form arguments and defenses of what we believe. This entails examining and analyzing a lot of arguments so that we can begin to see what good arguments have in common and why we should feel compelled to accept them. Unfortunately, most arguments are couched or even hidden in convoluted presentations and ambiguous terms. People are rarely kind enough to make their points in the pristine forms that philosophers and logicians would prefer. So much of the work in the early part of this course will be learning how to analyze texts in order to dig out the real premises of their arguments. After this, we will go on to take a look at some more subtle fallacies that mask errors of reason. The final section of this course will involve learning some of the basics of symbolic logic - a formal method of representing the structure of arguments and reasoning.

Assessment
Homework will be assigned starting the second week and will be assigned for every subsequent week in which we do not have an exam. You will each have to turn in a copy of each assignment. I do not prohibit you from working with others, but I will not accept collective efforts. Each assignment will be counted towards a homework grade and that grade will be worth 25% of your final grade.

There will also be three exams, one at the end of each section of the class. Each exam is worth 25% of your final grade. You are not permitted to miss an exam without documentation of some personal calamity. There will be no final exam in this class. The exams are not cumulative, strictly speaking. However, much of the background knowledge that you need to do different tasks later in the course will be laid out in the earlier sections of the course.

Introduction to Logic

Class 1. (September 18): Introduction: Truth, Non-Contradiction and the Excluded Middle
A. Logical Pragmatics

Class 2. (September 20): Argument as Rational Dialogue
Walton, Chapter 1

Class 3. (September 22): Questions and Suppositions
Walton, Chapter 2.1-2.4

Class 4. (September 25): Questions and Suppositions
Walton, Chapter 2.5-2.8

Class 5. (September 27): Questions and Relevance
Walton, Chapter 3.1-3.4

Class 6. (September 29): Induction and Statistical Fallacies
Walton, Chapter 8.1-8.5

*Homework: Class handouts*

You may now also access the answers.

Class 7. (October 2): Induction and Statistical Fallacies
Walton, Chapter 8.6-8.10

Class 8. (October 4): Procession Towards the Mean
Class Handouts

Class 9. (October 6): Ambiguity and Vagueness
Walton, Chapter 9.1-9.6

*Homework: Class handouts*

You may now also access the answers.

Class 10. (October 9): Ambiguity and Vagueness
Walton, Chapter 9.7-9.10

Class 11. (October 11): REVIEW

Class 12. (October 13): FIRST EXAM - *Click here for grades*

B. Fallacies and Foundations of Logic

Class 13. (October 16): The Nuts and Bolts of Logic
Walton, Chapter 5.1-5.3

Class 14. (October 18): Validity and Soundness
Walton, Chapter 5.4-5.6

Class 15. (October 20): Validity and Soundness
Walton, Chapter 5.7-5.8

*Homework: Hardegree, Chapter 1 Exercises*

Class 16. (October 23): Truth Functional Connectives
Hardegree, chapter 2

Class 17. (October 25): Translations in Sentential Logic
Hardegree, Chapter 4

Class 18. (October 27): Translations in Sentential Logic
Hardegree, Chapter 4

*Homework: Hardegree, Chapter 2, Set A, B and C and Chapter 4, Set A, B, C and D*
Class 19. (October 30): Translations in Sentential Logic
Hardegree, Chapter 4
Class 20. (November 1): REVIEW
Answers to the review problems handed out in class are available here.

Class 21. (November 3): SECOND EXAM - Click here for grades
Solutions to the problems on the second exam are also now available.

C. Symbolic Logic

Class 22. (November 6): Derivations in Sentential Logic
Hardegree, Chapter 5
Class 23. (November 8): Derivations in Sentential Logic
Hardegree, Chapter 5
Class 24. (November 10): Conditional Derivations
Hardegree, Chapter 5
Homework: Hardegree, Chapter 5, Set A-E

Class 25. (November 13): Indirect Derivations
Hardegree, Chapter 5
Class 26. (November 15): Predicate Logic
Hardegree, Chapter 8
Class 27. (November 17): Predicate Logic
Hardegree, Chapter 8
Homework: Hardegree, Chapter 5, Set F, Chapter 8, Set A-F
(skip those problems with polyadic quantification)

Class 28. (November 20): Predicate Logic
Hardegree, Chapter 8
Class 29. (November 22): REVIEW

THIRD EXAM is during finals week. Click here for grades

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