Logic and Reasoning

Philosophy 130-002
Spring 2005
Natural Science Building, Rm. 116
M, W: 3-4:20pm

Instructor Information

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Required Text


Course Objectives

The primary goal of Phil. 130 is to help you learn how to think more clearly and effectively. By semester’s end you should be able to do the following.

- Recognize certain features of language important for the functioning of arguments.
- Identify and reconstruct arguments in columns, editorials, science articles, etc.
- Distinguish between deductive and non-deductive arguments.
- Identify and evaluate specific types of deductive and non-deductive arguments.
- Identify a wide range of fallacies in argumentative discourse.
- Spot and evaluate non-argumentative attempts at persuasion.
- Construct good arguments.
- Be aware of the different uses of arguments
- Refute arguments and claims.
- Effectively communicate one’s reasoning to others.

Please let me know at any point if you think we aren't making sufficient progress toward these goals, or if there are goals that you think we should have. The following course requirements measure the extent to which these goals are attained.

Course Requirements

- Two in-class exams. Each exam is worth 30% of your final grade. Exams may consist of short-essay, T/F, fill-in-the-blank, multiple-choice, or multiple-select questions. The
questions, many similar to textbook exercises worked on in class, will cover material dealt with in class and in the text. The first exam will be given in class on Feb. 23rd. **Note well: this exam will not be rescheduled unless a student is hospitalized and makes available the required documentation.** The final exam is scheduled for Wednesday, May 4th, 3-5:00pm in our classroom. **This exam will be rescheduled only if the student is hospitalized during the exam time or there is a confirmed conflict with another final exam.**

- Six computer homework assignments. Your average homework grade will be worth 25% of your final grade. Homework assignments consist of the types of questions that may be posed on the exams and cover course material. They will be completed and submitted online. The homework schedule is below on p. 5. **Missing homework will be excused only in the event of hospitalization (yours not someone else’s) with the proper documentation.** There will be no make-up for homework.

- One semester project worth 15% of your final grade. Here the student will put employ the methods of argument reconstruction, evaluation, and argument construction in a critical analysis of two argumentative pieces of writing. Students will be expected to work independently in deploying the various techniques and strategies learned during the semester. The semester project will be assigned on April 4th and must be turned in by the last day of class on the 27th. **A late project will not be accepted for a grade.**

**Grading**

Grades on homework and exams will be on a 100-pt. scale. Your final grade will be first determined on a 100-pt. scale, and then converted to a 4.0 scale according to the below tabulations. For example, a final grade of an 83% corresponds to a 3.0 and a 77% corresponds to a 2.5.

<table>
<thead>
<tr>
<th>Final Grades</th>
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<tbody>
<tr>
<td>4.0=90% and above</td>
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<tr>
<td>3.5=85--89%</td>
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<tr>
<td>3.0=80--84%</td>
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<td>2.5=75--79%</td>
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<td>2.0=70--74%</td>
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<td>1.5=65--69%</td>
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<td>1.0=60--64%</td>
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**Course Content**

This course provides the opportunity to acquire some reasoning skills that should serve you well in whatever pursuit you engage in after this semester. I see PHL 130 as an opportunity for self-discovery and self-improvement. During the semester you should be able to look inside yourself and examine your ability to think. Coursework will sharpen this ability. The course has three parts.

Presenting an argument is a linguistic activity that is best understood against a background theory of how language functions in general. Hence, in the first part of the course we begin by investigating some basic features of language. More specifically, we learn the theory of speech acts developed by J.L. Austin and the account of conversational implication authored by H. P. Grice. Then we focus on the use of language in arguments. We shall pay special attention to
some of the rhetorical devices commonly used to make moves in an argument such as assuring, guarding, and discounting. Then, after discussing the different uses of argument, we develop a method for reconstructing arguments so that they may be evaluated in a fair and systematic fashion.

The second part of the course consists of learning how to analyze and evaluate both inductive and deductive arguments. Towards this end, we shall learn how to formalize arguments and test them for deductive validity using some of the elementary resources of propositional logic. Then we survey several types of inductive arguments (e.g., argument from analogy and inference to the best explanation) and learn not only how to distinguish between them, but also how to evaluate them.

In the third and final part of the course we examine some of the main ways arguments can be fallacious. In order to avoid defective styles of reasoning, it is important to learn how to recognize, analyze, and respond to them. We shall begin by examining a variety of ways language can be used unclearly or imprecisely and we shall discuss different kinds of definition that can be useful in avoiding or responding to these fallacies of clarity. Then we consider fallacies of relevance and fallacies of vacuity.

**Class Time & Attendance Expectations**

Class time will primarily be spent going over text exercises, and reviewing or expanding on key points from the reading. Regular and meaningful class attendance is important for success in this class. For example, several of the exercises on the two tests will come from the collections of those text exercises worked on in class. Missing lots of classes will put you at a disadvantage relative to test takers who have seen the answers to exercises worked out in class beforehand. In short, missing class could hurt your performance on the tests.

Most students find the material in PHL 130 difficult. It is important that you not only consistently attend class, but that you make your class attendance meaningful. Meaningful class attendance means coming to class having done the reading assignment and having worked on enough text exercises to get a sense where you stand with the material. Class time is your opportunity to clear up those things that you find mysterious or troublesome. So coming to class and ignoring Socrates by not being aware of what you don't know is not the best way to use the classes.

Note well: students are responsible for missed class announcements and getting the notes for a missed class. Typically more goes on in class then what is contained in my lecture notes which will be made available on the web.

**Angel Website**

The course has a homepage on the Angel Network. The logon page is at [http://www.angel.msu.edu](http://www.angel.msu.edu). The homepage will have the syllabus, links to my lecture notes, self-diagnostic quizzes, and a message board for posing and answering questions on class material. Also, all the homework assignments, plus the semester project will be posted and completed there. I’ll say more about all this the first day of class.

**Classroom Etiquette**
• Please refrain from speaking in class unless first acknowledged by me. Conversations with your peers are disruptive; they interrupt the ebb and flow of the class. Also, cellular phones should be turned off before class begins; please set pagers to vibrate, not beep.
• Please do not arrive late to class or leave early. I do not want the classroom treated like a bus depot where you can come and go as you please. If you must leave early for some important reason, please sit near the door.
• No unsolicited comments on another student’s classroom participation.

Tentative Reading and Homework Schedule

1/10  Introduction
1/12-1/24  Chapter 1, *The Web of Language*
            Chapter 2, *Rhetoric and Evaluation*
1/26 & 1/31  Chapter 3, *The Language of Argument*
2/2-2/16  Chapter 4, *The Art of Close Analysis*
            Chapter 5, *Deep Analysis*
2/21  Review
2/23  Exam #1 on Chapters 1-5
2/28 & 3/2  Chapter 6, *Propositional Logic*
3/7-3/11  Spring Break
3/14 & 3/16  Chapter 6, *Propositional Logic*
3/21-3/28  Chapter 9, *Inductive Reasoning*
3/30-4/13  Chapter 11, *Fallacies of Clarity*
            Chapter 12, *Fallacies of Relevance and Vacuity*
4/18-4/25  Chapter 13, *Uses of Arguments*
4/27  Conclusion and Review

**Homework Schedule**: Homework is assigned on a Thursday and is due by 11:00pm on the following Monday. Again, homework will be completed and submitted online in the Angel environment.
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<thead>
<tr>
<th>Date Assigned</th>
<th>Due</th>
<th>Chapter(s) covered</th>
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<tbody>
<tr>
<td>2/3</td>
<td>2/7</td>
<td>Chapters 1-3</td>
</tr>
<tr>
<td>2/17</td>
<td>2/21</td>
<td>Chapters 4 and 5</td>
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<td>3/17</td>
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<td>4/25</td>
<td>Chapter 13</td>
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