

Fall 2007

PHIL 206: LOGIC

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Official Office Hours: 11:00-11:50 WF; 2-3 TR & by appt.

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REQUIRED BOOK:

- Moore and Parker, *Critical Thinking*, 8th Edition

COURSE DESCRIPTION: This is a class in careful critical thinking. You will find some of it rudimentary, some of it obtuse and seemingly irrelevant. Some parts of the course will remind you of a writing class, while others will be reminiscent of a math class. As the semester progresses, though, you should see how relevant critical thinking is to many arenas of life, from studying and writing to voting and working in an information age. Your general goal in this course should be to *assess, develop, and improve* your critical thinking skills.

You regularly utilize the reasoning skills studied in this course, even if you don't identify them as such. These skills are tools that enable us to better decide what to think and do. But tools are beneficial only if we use them, so I encourage you to strive to be like the master carpenter who uses tools with great finesse for a wide variety of tasks. We will spend much time *exploring* the many tools at our disposal and *sharpening* our application of them to various problems. A curious and open mind will help with the former; lots of practice will facilitate the latter.

Specific Ends:

- Improving your clarity of thinking and word use
- Analyzing and assessing arguments on the basis of:
 - Determining the **A**ceptability of claims
 - Determining the **R**elevance of claims to one another
 - Determining whether certain claims provide adequate **G**rounds for others
- Constructing and defending (before a live audience) good arguments. This is aided by attention to possible objections and counter-arguments.

General Ends:

- Developing **self-mastery**. Think of this as a meta- or master skill. Being a critical thinker means *being able to judge for yourself* – and this includes judging your own limits and skills. Nevertheless, we do not cultivate self-mastery by thinking or acting in isolation from others. Rather, we develop our skills by working with others, learning from them, sharing with them our own insights and skills, and testing beliefs through ongoing interaction. (This social dimension is one reason for our use of group work.) Hence: seek help from me and your classmates whenever you need it.
- Becoming a logic craftsman: In many ways, the ultimate goal is to learn, develop, and coordinate skills **for use** all the time so that we each become logic craftsmen.

Means:

- Practice, practice, practice ... (*Homework* and in-class *Exercises* will provide the opportunity for this and regular *Quizzes* will help you gauge your improvement)
- Learn to use your skills when interacting with others (*Group Projects* will help here)
- Use various skills analyzing arguments on the basis of the ARG conditions (*Exams* and regular *Quizzes* will help you gauge your progress)
- Use your skills constructing arguments that survive public scrutiny (*Group Projects* will help you here).

SUPPLEMENTAL RESOURCES:

- *Editorials*. You can find these in the local paper (*The Commercial Appeal*), national papers like *The New York Times* and *The Chicago Tribune*, and magazines like *Time*, *Newsweek*, or *U.S. News and World Report*. Editorials are on the shrill side, so be sure to use your critical thinking skills in reading them.
- *Book Reviews*: Good book reviews (e.g., those in *The New York Times Book Review*) usually involve both a summary and critical assessment of someone else's perspective, craftsmanship, or argument. They tend to be more charitable and constructive than editorials.
- Lewis Carroll's *Alice in Wonderland*. Carroll was a logician.
- Internet sites: an interesting one <http://users.telarama.com/~jdehullu/>.

COURSE REQUIREMENTS:

Quizzes/Homework	= 20%
3 Exams (@ 20%)	= 60%
Group Projects:	
Argument Analysis	= 10%
Presentation	= 10%

• Regular **Quizzes** and **Homework (20%)**: We will regularly have **quizzes** (without books or notes) that will usually be taken outside of class via WebCT. You need to be prepared for these, since you will have a limited amount of time (usually about 10 minutes) to complete 2 or 3 problems. Quizzes will consist of exercises similar to those done in homework and in class. The challenge is for you to demonstrate mastery of material within a limited time period. Use these quizzes as self-checks. If you're not performing adequately, practice more and seek help.

Homework is assigned daily (on the calendar). Some homework may be assigned for a grade. You are expected to complete homework exercises *prior* to class and will be called on to share your answers in class. Don't limit yourself to the assigned exercises & know that some answers are given in the back of the book.

Homework check: At times, I will begin class by asking you to copy your answer to one of the homework exercises (in a limited amount of time). Depending on classroom dynamics, I may ask you to grade and discuss one another's "homework check." They will then be handed in. These exercises will be assigned a point value (usually 1 or 2) which will be factored in with your quiz grades.

Attendance and Makeup Work: You are expected to attend all classes. Although no specific penalty attaches to absences, I strongly discourage you from missing more than 2 classes throughout the semester. (Experience has taught me that the real penalty for absences manifests itself on quizzes and exams.) Each of you is allowed *one* makeup **quiz**. If you miss a quiz, it is your responsibility to contact me as soon as possible and make it up *within two days after the due date*. *No other* make-ups will be allowed. Since **homework checks** are an integral part of class activities, they cannot be made up.

• **Exams (3 @ 20%)**: There will be two in-class exams during the semester. Tentative dates can be found in the calendar below. Exams will include questions similar to homework and quizzes. You will have the entire period to take exams, but developed skills will be necessary to finish on time. Makeup exams will be given only in extraordinary situations. Exams will be cumulative. The final (taken during finals week) is required and will be cumulative.

• **Group Projects (20%)**: In recognition of the social nature of critical thinking, you will be required to pair up with a classmate to both (a) *analyze an argument* and (b) *construct an argument* for in-class presentation. Though you will work in teams, there will be some room for disagreement (see below).

(a) Argument *Analysis* (10%): During 6 class periods, we will analyze and discuss an argument drawn from classic philosophic literature or contemporary issues (that are usually controversial, e.g., those in the election). Everyone is expected to analyze the argument, but two groups of 2 will present their analysis for class discussion and a grade. To ensure the class can offer feedback on the arguments being presented (and to give you additional practice in analyzing arguments), *all* students are required to *successfully* complete, *prior to class*, argument analyses for *at least 4* assignments in addition to the one you present. Failure to do so will result in a “0” for this 10% of the grade. Only those presenting will receive a letter grade for that particular assignment; nevertheless, if you want feedback on an assignment that you do not present, simply write “Comment” on the top of the 1st page of your work. Otherwise, I will just check to ensure you completed the assignment in a generally correct manner.

Specific instructions will be given for each argument, but the general requirements for the presenters include completing (i) *a typed analysis* of the argument to be handed in prior to the presentation, and (ii) *a follow-up assessment* due at the beginning of the next class. In your assessment, you will both want to explain and correct any mistakes and explain how your analysis has changed as a consequence of class discussion. Partners are *not* required to agree on every detail of the analysis, but the two of you must achieve a general consensus. When you disagree, make note of that and the reasons why in your analysis.

These analyses will be graded on the basis of (i) *clarity*, (ii) *successful analysis* per the assigned directions, (iii) *successful employment of the skills relevant* to that argument, and (iv) demonstration of *learning and sophistication*.

(b) Argument *Presentations* (10%): For the last 5 class periods (probably with one night session), you will form groups of 2 to *construct* and *defend* your own argument using the tools of analysis developed through the semester. First, each group will have 15-20 minutes in which to present its argument and respond to class discussion. Second, you will write a follow-up assessment of the argument, based on criticisms and further insights gained from the class’ discussion of your argument. More information will be provided later.

MISCELLANEOUS POLICIES:

• **Grading Scale:** I use the following:

		B+	87-89
A	94 and up	B	84-86
A-	90-93	B-	80-83 etc.

• **Successful Classroom:** In working through examples, we will cover a number of controversial issues. I hope you will take these seriously and have the courage to subject all views (including your own) to critical scrutiny. If you feel uncomfortable doing so, please come talk with me. I strongly encourage you to contribute your insights, criticisms, and bafflements, since we typically learn better when we are actively involved with the material. In our class everyone has a right to express a genuine opinion, curiosity or criticism, but no one has a right to put one down.

Respect towards all members of the class and to course content is the key. I work hard to generate a setting in which we can be honest and critical, but my efforts are minimal without your individual contributions. *Impediments* to a successful classroom include tardiness, cell phones, disruptive talking, lethargy, excessive absences, and leaving the classroom before the end of the hour. We are biological creatures, but since we also have a relative mastery over our bodies, please take care of your biological needs before class.

• **Honor Code:** The Honor Code stipulates that all the work you submit is to be your own. You are encouraged to discuss topics and assignments with your colleagues, but the work you hand in must be your own, i.e., it must be formulated and written in your own words and style reflecting your own thoughtful treatment. If you have any questions about the Honor Code, please ask me.

This syllabus aims to offer clear guidelines for your success in this class, but guidelines alone do not foster growth. In addition, help and encouragement are needed. Please see me if you are in need of help with your progress in this class. I'll help in whatever way I can.

• **Film Viewing:** We may view some movies & documentaries related to course content. More information will be provided later.

****This syllabus is subject to revision (but don't worry; I'll discuss any changes with the class before I make them)***.*

LOGIC CALENDAR

Monday	Wednesday	Friday
	8/22 Introduction: Getting Started Assignment	8/24 <i>Diagnostic Exam</i> due <i>Chpt 1</i> – Arguments & Issues • Read pp. 1-19 Do exercises 1-1 :1-10, 15, 17; 1-3 : all
8/27 <i>Chpt 1</i> – Arguments & Issues • Review pp. 1-19 Do exercises 1-4 :1-4, remaining odds; 1-5 : 2, 4, 7, 9, 12, 20	8/29 <i>Chpt 1</i> – More on Arguments & Issues Do exercises 1-7 : 2, 3, 6, 10, 13; 1-8 : 2, 4; 1-11 : all; 1-12 : evens; 1-15 : odds or evens (you choose)	8/31 <i>Chpt 7</i> – Anatomy & Varieties of Arguments • Read pp. 215-219 Do exercises 7-1 : all; 7-2 : all; 7-3 : even; 7-4 : odd; 7-5 : do as many as you like; 7-6 : all
9/3 Labor Day	9/5 <i>Chpt 7</i> – Anatomy & Varieties of Arguments (cont.) • Read pp. 219-231 Do exercises 7-7 : all; 7-8 : do as many as you can in 7-2 and 7-3; 7-9 : odd. Do exercises 7-10 : all; 7-12 : odds; 7-13 : even (Diagramming arguments is good practice, but we won't have time to focus on it in class. <i>Recommended</i> exercises: 7-14 : all; 7-16 : all.)	9/7 <i>Chpt 8</i> – Categorical Logic (the “ R ” and “ G ” conditions) • Translations : Read pp. 247-254 (skip the Venn diagram section) Do exercises 8-1 : 1-10 and as many of the remainder as you can; 8-2 : all.
9/10 <i>Chpt 8</i> – The Square & Conversions • Read pp. 256-260 Do exercises 8-3 : all; 8-4 : odds; 8-5 : evens; 8-6 : all; 8-7 : all; 8-8 : odds; 8-9 : evens; 8-10 : 2, 4, 8	9/12 <i>Chpt 8</i> – Syllogisms • Read pp. 266-267 and 272-278. Since we're skipping the Venn diagrams, ignore any exercise instructions which tell you to use them. Do exercises 8-13 : all; 8-14 : all; 8-15 : all; 8-16 : odds; 8-17 : evens.	9/14 <i>Chpt 8</i> – Syllogisms • Do exercises 8-18 : (which means 8-11 : 2, 5, 8, 9; and 8-12 : 3, 5, 6, 10); 8-19 : 2, 6, 8, 14, 19; 8-20 : 2, 3, 5; 8-21 .
9/17 † 1 Analyzing Arguments (possible topic: the existence of God)	9/19 <i>Chpt 9</i> – Truth-Functional Logic (the “ R ” and “ G ” conditions) • Translations – Read pp. 287-301 Do exercises 9-1 : all; 9-2 : all. • Truth Tables – Read pp. 302-308 Do exercises 9-4 : all; 9-5 : all. Use the short truth-table method on these exercises, but <i>also</i> use the long truth-table method on 9-4: 3 and at least one of 9-5.	9/21 <i>Chpt 9</i> – Truth-Functional Logic (the “ R ” and “ G ” conditions) Wednesday's assignment (cont.)
9/24 <i>Chpt 9</i> – Deductions • Read pp. 310-348 (we may skip conditional proof, depending on time). Do all exercises in 9-6 , 9-7 , & 9-8 ; also do 9-9 : odds.	9/26 <i>Chpt 9</i> – Deductions Do exercises 9-10 : all; 9-11 : all; 9-13 : all	9/28 † 2 Analyzing Arguments (possible topic: death penalty)
10/1 Truth-Functional Logic Review Additional assignment may be given.	10/3 EXAM 1 (Chpts 1, 7-9)	10/5 <i>Chpt 2</i> – Clarity (the “ A ” condition) • Read pp. 39-55; Do exercises 2-1 : all; 2-7 : evens; 2-3 : odds; 2-4 & 2-5 ; 2-6 : 1, 2, 5, 6, 9; 2-7 : 5, 6, 8; 2-8 : 2, 4, 5; 2-10 : 1-10 and remaining;
10/8 <i>Chpt 2</i> – Definitions • Read pp. 55-57, 63-64. Do exercises 2-11 :evens; 2-12 : all. <i>Chpt 3</i> – Credibility • Read pp. 77-87; Do all exercises in 3-1 ; 3-2 .	10/10 <i>Chpt 3</i> – Credibility • Read pp. 87-104; Do all exercises in 3-3 ; 3-4 ; 3-5 : all (on your own or with a partner); 3-7 : odds (on your own or with a partner); 3-8 : all; 3-9 ; 3-10	10/12 <i>Chpt 3</i> – Credibility (cont) • Review pp. 87-104. Do exercises 3-10 ; 3-11 ; 3-12 : 1-5; Writing Exercise 6 .

10/15 FALL BREAK	10/17 <i>Chpt 4</i> – Rhetoric (the “ R ” condition) • Read pp. 117-134 Do exercises 4-1 : even + as many as you can; 4-2 through 4-9 .	10/19 <i>Chpt 4</i> – Rhetoric (cont.) Do exercises 4-10 : 2, 3, 5, 8, 9; 4-11 ; 4-12 : odds.
10/22 ‡ 3 Analyzing Arguments (possible topic: TBA)	10/24 ‡ 4 Analyzing Arguments (possible topic: TBA)	10/26 <i>Chpt 5</i> – Psychological Fallacies (the “ R ” condition) • Read pp. 145-163; Do exercises 5-2 : all; 5-3 : 4, 5, 9; 5-4 : 1-10.
10/29 <i>Chpt 5</i> – Psychological Fallacies (cont.) Do exercises 5-5 : 3, 6, 9, 10; 5-6 : 2, 5, 6, 9; 5-7 : 2, 3, 15-18.	10/31 <i>Chpt 6</i> – More Fallacies (the “ R ” condition) • Read pp. 173-189 Do exercises 6-2 : all; 6-3 : 1-6, 8, 9; 6-4 : 2, 8, 12; 6-5 : 3, 5, 6.	11/2 <i>Chpt 6</i> – More Fallacies (cont.) Do exercises 6-6 : evens; 6-7 : odds; 6-8 ; 6-9 : 1-6, 8, 10 (do alone); 6-10 : evens; 6-11 : odds; 6-12 : 2, 3, 5, 6, 8, 9, 12; 6-13 : 4, 6, 9; 6-16 : 3, 4, 6, 10, 14, 18; 6-17 : as many as you need.
11/5 ‡ 5 Analyzing Arguments (possible topic: TBA)	11/7 Review	11/9 EXAM 2 (Chapters 2-6)
11/12 Beginning to think about Class Presentations <i>Chpt 10</i> Inductive Arguments (the “ R ” and “ G ” conditions) • Read pp. 333-349 Do all exercises in 10-1 , 10-2 ; 10-3 : evens; 10-4 : evens.	11/14 <i>Chpt 10</i> Inductive Arguments • Read pp. 349-357 Do all exercises in 10-5 : evens; 10-6 : odds; 10-7 ; 10-8 : all; 10-9 : all.	11/16 <i>Chpt 10</i> Inductive Arguments Do all exercises in 10-10 ; 10-11 ; 10-12 ; 10-13 : all; 10-14 : all; 10-15 : odds; 10-16 : evens.
11/19 ‡ 6 Analyzing Arguments (possible topic: the argument from design)	11/21 Thanksgiving Break	11/23 Thanksgiving Break
11/26 Presentations	11/28 Presentations	11/30 Presentations
12/3 Presentations	12/5 Presentations	