Phil. 2440: Symbolic Logic   Fall, 2002

Lecture: MWF 12:00-12:50, Hlms 241   Office: 266 Hellems
Professor: Michael Huemer   Office Hours: MWF, 1-2, in Prufrock's

General description:

The aim of the course is to teach you what every philosopher should know about logic. Every philosophy student needs to have a working familiarity with propositional and predicate logic, which will be our first two units. After that, we'll go on to the topics in logic that are of the most philosophical interest: our third unit will be on basic set theory, and the fourth will be on meta-logic, including Gödel's famous theorem.

Text:

The text is a course packet written by yours truly, which you can get from the CU book store. Not every chapter in it will be covered in this class. I will put a copy on reserve at Norlin circulation desk, in case you have trouble getting it. In addition, there is a philosophy article I will want you to download and read (see schedule, Dec. 4).

Course requirements:

• *Homework problems (1/3 of grade):*

There are homework problems for each chapter. Guidelines:

1. They are due at the beginning of class, on the days indicated on the syllabus. Late homework gets 2/3 credit.
2. If you absolutely cannot come to class, send it by email before class. Send it as pdf, rich text, text pasted into an email message, or a recent version of MS Word or WordPerfect. Do not send some bizarre file format that nobody ever heard of.
3. Please do not make excuses, unless you were either (a) in the hospital, or (b) in prison. In particular, don't make any of the following excuses: you didn't realize it was due on that day; you couldn't do the assignment because you missed class; your computer is busted; or you sent it to the wrong email address.
4. You will get full credit as long as you attempt all of the problems. If you skip some of them, you get partial credit. Some of the problems are *hard*; don't feel bad if you can't complete them, but at least make a start on them.
5. You may discuss the problems with other students, but do not copy directly from their papers.

• *Tests (2/3 of grade):*

There will be 4 in-class tests, as indicated on the syllabus. No final.

Who should take this class?

If you are a philosophy major seeking to satisfy the major requirement, or if you're just generally interested in logic, then you've come to the right place.

I assume no prior knowledge of logic on your part. Be advised, however, that the course contains technical, mathematical material that will prove difficult and time-consuming for many students. The most difficult parts come at the end, particularly the chapter on Gödel's Theorem.

Other guidelines:
1. You can call me at home, but not between 10 p.m. and 10 a.m. Leave a message, since I screen my calls. Or, send email; I will normally get back to you the same day.
2. Feel free to come to my office hours to talk about philosophy or logic, or play chess. If you have any questions, I will do my best to answer them, and you will probably leave feeling clearer & smarter.
3. Participate in class. If there's something that's not clear, please raise your hand and ask about it. Other students are probably wondering the same thing.
4. Do not come to class late.

Grading policy:
Grades will be 'curved' so as to yield a B or B- average for the class. The curve formula will be (Adjusted grade) = n(Raw score) + 100(1- n), where n is whatever number (between 0 and 1) is required to achieve the desired result, depending on how the class performs. (Notice that setting $n=1$ results in no adjustment, whereas setting $n=0$ results in raising every grade to 100.)

Schedule:
"HW" indicates due date for homework problems. The problems are at the end of each chapter.

Unit 1: Propositional Calculus

M, Aug. 26	Introduction. Course requirements.
W, Aug. 28	*Discuss:* Chapter 1
F, Aug. 30	**HW**: Ch. 1
M, Sept. 2	*No class--Labor Day*
W, Sept. 4	*Discuss:* Chapter 2
F, Sept. 6	*Discuss:* Chapter 2
M, Sept. 9	**HW**: Ch. 2
W, Sept. 11	*Discuss:* Chapter 3
F, Sept. 13	**HW**: Ch. 3
M, Sept. 16	*Discuss:* Chapter 4
W, Sept. 18	*Discuss:* Chapter 4
F, Sept. 20	**HW**: Ch. 4
M, Sept. 23	Review
W, Sept. 25	**Test #1.**

Unit 2: Predicate Calculus

F, Sept. 27	*Discuss:* Chapter 5
M, Sept. 30	*Discuss:* Chapter 5
W, Oct. 2	**HW**: Ch. 5
F, Oct. 4	*Discuss:* Chapter 6
M, Oct. 7	*Discuss:* Chapter 6
W, Oct. 9	**HW**: Ch. 6
F, Oct. 11	*Discuss:* Chapter 7
M, Oct. 14	*No class--Fall break*
W, Oct. 16	*Discuss:* Chapter 7
F, Oct. 18	**HW**: Ch. 7
M, Oct. 21	Review
W, Oct. 23	**Test #2.**

Unit 3: Set Theory

F, Oct. 25	*Discuss:* Chapter 9
M, Oct. 28	*Discuss:* Chapter 9
W, Oct. 30	**HW**: Ch. 9
F, Nov. 1	*Discuss:* Chapter 10
M, Nov. 4	*Discuss:* Chapter 10
W, Nov. 6	**HW**: Ch. 10, #1-7
F, Nov. 8	*Discuss:* Chapter 11
M, Nov. 11	**HW**: Ch. 11
W, Nov. 13	Review
M, Nov. 15	**Test #3.**

Unit 4: Metalogic

W, Nov. 18	*Discuss:* Ch. 12, §§1-2 **HW**: Ch. 12, questions 1-3
M, Nov. 20	*Discuss:* Ch. 12
F, Nov. 22	**HW**: Ch. 12, questions 4-7
M, Nov. 25	*Discuss:* Ch. 13, §§1-3
W, Nov. 27	*Discuss:* Ch. 13, §§ 4-7
F, Nov. 29	*No class--Thanksgiving*
M, Dec. 2	**HW**: Ch. 13
W, Dec. 4	*Discuss:* J.R. Lucas. Read this article: http://users.ox.ac.uk/~jrlucas/mmg.html Also can be found in: *Philosophy* 36 (1961): 112-27.
F, Dec. 6	*Discuss:* More about Lucas
M, Dec. 9	Review.
W, Dec. 11	**Test #4.** Bye.