

COURSE SYLLABUS

Philosophy 120: *Symbolic Logic I*

UC San Diego: Spring, 2006

Tu. & Th., 3:30-4:50, WLH 2205

COURSE DESCRIPTION: Logic is the study of arguments—their types, structures, when and how they are good or bad, etc. Phil 10 (Intro to Logic) introduced you to the basics of studying arguments by limiting the discussion to the level of the *sentence*. But we need only do a minimal amount of searching to find arguments that cannot be understood in this way; there is logical structure *beneath the level of the sentence*. Once this is recognized, whole new fields of logic open up to us. In this course, we examine the logic of *predicates and the objects to which they are applied*, itself just one kind of *sub-sentential* level of logical structure. Also stressed in this course is a deeper understanding of the semantic issues involved in the study of formal languages along with some general discussion of important meta-theoretic questions such as “What makes for a sound and complete logical language?” and “How do we prove that the logical languages studied in this course are sound and complete?”

COURSE OBJECTIVES: Students who master this material will be well-prepared for further studies in logical structure (including courses in modal logic and set theory) as well as proficient in the ideas assumed by many philosophers of the 20th century analytic philosophy tradition. This is a good thing inasmuch as familiarity with the notions of formal logic is assumed of all contemporary philosophers.

PREREQUISITES: Phil 10 or instructor’s permission.

REQUIRED TEXT: *forallx* by P.D. Magnus. (Available at the UCSD Bookstore for \$12.18 after tax.)

INSTRUCTOR: Aaron Schiller, aaschiller@ucsd.edu, Office Hours: Tu, 1-3 or by appointment, 8088 HSS.

TEACHING ASSISTANT: Mark Newman, mpnewman184@yahoo.com.

GRADING: The final course grade is determined by points obtained on 6 Problem Sets, 2 Midterms, and a Final Exam. The point breakdown is as follows:

Problem Sets = 20%	(200 max. points)
First Midterm = 20%	(200 max. points)
Second Midterm = 20%	(200 max. points)
Final Exam = 40%	(400 max. points)

PROBLEM SETS: There will be 6 Problem Sets in this course. They will be handed out at the end of the Thursday lecture a week before they are due (the beginning of class the next Thursday). No late Problem Sets will be accepted except in cases of emergency and problem sets of more than one page that are not stapled or paper-clipped will be docked 5%. Due dates can be found on the SCHEDULE below.

(over)

EXAMS: There will be 2 Midterms and a Final Exam. Please bring a bluebook to each exam. Exam dates can be found on the SCHEDULE below.

SECTIONS: There are no official sections scheduled for this course. But students will definitely benefit from discussion of this material with other students and the TA. For this reason, TA office hours will be run as sections and held in the philosophy seminar room (7077 HSS). Barring changes, the section times are 10-11am Tuesday and Wednesday.

ON ACADEMIC HONESTY: The academic senate has a strict policy on cheating and they urge instructors to include the following information on their syllabi: Any student caught cheating on the Midterms or Final will face the minimum consequence of being reported to the Dean of that student's college as having violated UCSD's standards of academic honesty. Further consequences could include failure in this course or worse. I therefore strongly advise you not to cheat in this or any other course. Cheating in this course is hereby defined as (1) the unauthorized use of crib sheets, electronic calculators, cell phones, etc., during an exam and (2) copying wholesale another's work on the Problem Sets and then turning it in as your own. 1 should be clear enough. As to 2, students are encouraged to work together on Problem Sets, and so some overlap is expected. Straight copying, however, will be considered cheating, so please complete the work on your own. For more on academic honesty see the UCSD Policy on Integrity of Scholarship at <http://www-senate.ucsd.edu/manual/appendices/app2.htm#AP14>.

SCHEDULE:

	Tuesdays	Thursdays	
Week 1	Intro;	Review of SL	
Week 2	Predicates and Quantifiers;	Universe of Discourse & Empty Terms	PS1 Due
Week 3	Translating to QL;	WFFs	PS2 Due
Week 4	First Midterm;	Introducing Identity	
Week 5	Semantics for SL;	Interpretations and Models in QL	PS3 Due
Week 6	More on Models;	Identity Semantics	PS4 Due
Week 7	Defining Truth;	Second Midterm	
Week 8	Review of SL Rules of Proof;	QL Rules of Proof	
Week 9	Adding Identity to Proofs;	More on Proofs	PS5 Due
Week 10	Soundness and Completeness;	Course Review	PS6 Due
Final Exam	Thursday, 6/15/06, 3-6pm		