

PHIL 205: Logic
Denison University, Fall 2008

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Course Objective: A study of reasoning in ordinary language and in contemporary symbolic languages with emphasis on the connections between the two. This course will familiarize the student with the elementary study of propositional, predicate, syllogistic and class logic with some attention to basic problems of logical theory and history of formal logic

Required Texts: Paul Tomassi, *Logic* (New York: Routledge, 1999) \$35 ISBN: 0415166969

The main text for this class will be Tomassi's *Logic*. Some articles from other sources may be assigned, but the knowledge of these essays will not be tested. They are merely to entice discussion and to further enrich and aid you in the dialogue concerning the philosophical applications of formal logic. Problems will be assigned weekly from the Tomassi book.

Course Schedule: All dates and content scheduled is tentative and subject to change by the Instructor at any time for any reason.

DATE	ASSIGNMENT	TOPIC
1 Sept:	Introduction to Course and Objectives	History of Logic
3 Sept:	Read Chapter 1	Arguments, Premises and Conclusions
5 Sept:	Ex. 1.1, #1, 2, 4	
8 Sept:	Read pp. 32-39; Ex. 2.1 #1-3	WFFs
10 Sept:	Read pp. 42-45; Ex. 2.2, #1-5	Proof Theory
12 Sept:	Read pp. 47-53; Ex. 2.3 #2	Conjunctions (&I, &E)
15 Sept:	Read pp. 53-55; Ex. 2.4	Conditionals I (MP)
17 Sept:	Read pp. 56-65; Ex. 2.5	Conditionals II (CP)
19 Sept:	Read pp. 65-66; Ex. 2.6	Theorems
22 Sept:	Read pp. 66-70; Ex. 2.7	Bi-conditional
24 Sept:	Read pp. 74-82; Ex. 3.1 and 3.2 (1-4, 6)	Negation, DN & MT
26 Sept:	Ex. 3.2 (rest)	MT + CP technique
29 Sept:	Read pp. 82-90; Ex. 3.3 and 3.4, #2	Disjunction, \vee I and \vee E
1 Oct:	Read pp. 90-93; Ex. 3.5 and 3.6	More on \vee E

3 Oct:	Read pp. 94-101; Ex. 3.7 and 3.8	Proofs and Subproofs
6 Oct:	Read pp. 101-118; Ex. 3.9 (1-10)	RAA
8 Oct:	Ex. 3.9 (rest)	More on RAA
10 Oct:	Selected problems from pp. 108-110	PL Deduction Review
13 Oct:	Selected problems from pp. 108-110	PL Deduction Review
15 Oct:	Review for Midterm	Chs. 1-3 Review
17 Oct:	Midterm (in class)	--
20 Oct:	Read 122-126	Syntax and Semantics
22 Oct:	Read pp. 126-143; Ex. 4.1	Tautologies, Contradictions and Contingencies
24 Oct:	Read pp. 144-150; Ex. 4.3	Truth Tables and Validity
27 Oct:	Ex. 4.4	More on Testing Validity
29 Oct:	Read 160-2; Ex. 4.5	Semantic Implication and Equivalence
31 Oct:	Read pp. 190-197	Predicate Logic and other scary stuff!!
3 Nov:	Read 202-209; Ex. 5.3	Universal and Existential Quantifiers
5 Nov:	Read pp. 210-212; Ex. 5.4	QL Sequents
7 Nov:	Read pp. 214-6; Ex. 5.5	QN
10 Nov:	Read pp. 217-224; Ex. 5.7 #1	Relational Logic
12 Nov:	Read pp. 224-232; Ex. 5.7 #2,3	Relations II
14 Nov:	Read pp. 266-272; Ex. 6.1	Universal Rules (UE)
17 Nov:	Read pp. 273-280; Ex. 6.2	Universal Rules (UI)
19 Nov:	Read pp. 281-286; Ex. 6.3	Existential Rules (EI)
21 Nov:	Read pp. 287-292; Ex. 6.4	Free Logic
24-28 Nov:	Thanksgiving Break: No Class!	
1 Dec:	Read pp. 292-302; Ex. 6.5	Existential Rules (EI)
3 Dec:	Read pp. 303-309; Ex. 6.6 #1	Polyadic Quantified Logic
5 Dec:	Read pp. 240-249, 310-315; Ex. 6.7	Identity (=I, =E)

8 Dec:	Read pp. 315-327; Selected Problems from pp. 328-329	QL Deduction Review
10 Dec:	Selected Problems from pp. 328-329	QL Deduction Review
12 Dec:	Review for Final	Course Review
15 Dec:	Final Exam (9 - 11 AM)	--

Note on the Indeterminacy of Time: Rarely is there enough time in the semester to cover everything an ideal course in logic should cover. Some of the later assignments may look daunting, but chances are good that some sections may need to be cut based on lack of time. I reserve the right to change the schedule at any time to correspond to the pace of the class.

Evaluation: There will be about four quizzes which will be given through the semester. Some of these may be unannounced. The lowest score will not be counted into calculating your final grade. NO MAKE UPS will be offered on quizzes. In addition, there will be two exams given during the regularly scheduled class time (dates subject to change):

- ◆ Midterm Exam: 17 October
- ◆ Final Exam: 19 December

Anyone who cannot take either exam must make arrangements to make it up at least one week prior to the scheduled exam date. Failure to do so will result in a grade of "F" for that exam.

The following weighting will be used to calculate your grade:

Quizzes (lowest score dropped)	20%
Midterm Exam	20%
Attendance and Homework "controls"	20%
Participation	10%
Final Exam	30%

Students who wish to enhance their grade may have the option of writing a 5-7 page paper on a topic in logical theory and/or the history of logic selected by the instructor. Please note that this option is only available to those who get their topics approved by me. Philosophy majors considering graduate school in philosophy might also consider writing this paper independent of any specific grade concerns.

Students with Disabilities: Any student who feels he or she may need an accommodation based on the impact of a disability should contact me privately as soon as possible to discuss his or her specific needs. I rely on the Academic Support & Enrichment Center in 102 Doane to verify the need for reasonable accommodations based on documentation on file in that office.

Note on Academic Dishonesty: The students and faculty of Denison University and the Department of Philosophy are committed to academic integrity and will not tolerate any violation of this principle. Academic honesty, the cornerstone of teaching and learning, lays the foundation for lifelong integrity.

Academic dishonesty is, in most cases, intellectual theft. It includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for evaluation. This standard applies to all work ranging from daily homework assignments to major exams. Students must clearly cite any sources consulted - not only for quoted phrases but also for ideas and information that are not common knowledge. Neither ignorance nor carelessness is an acceptable defense in cases of plagiarism. It is the student's responsibility to follow the appropriate format for citations.

As is indicated in Denison's Student Handbook, available through mydenison.edu, instructors must refer every act of academic dishonesty to the Associate Provost, and violations may result in failure in the course, suspension, or expulsion. (For further information, see <http://www.denison.edu/student-affairs/handbook/article7.html>).

Expectations, Suggestions and Mandates for an efficient class:

1. Please arrive to class on time and expect to stay the entire duration of the class. If this is an impossibility, please make every attempt to notify me in advance of tardiness or absence.
2. Especially true in logic more than most other areas in philosophy, diligence is important. The difficulty of the subject is indirectly proportional to the amount of work put into the course. Expect to have up to five hours a week of reading and practice in order to get an "A" for the course. Additionally, for these reasons, attendance is of vital importance.
3. Please come to class prepared (i.e., any reading assigned read, any questions concerning exercises or lectures prepared, etc.)
4. Please be respectful of each other in the class. There will be times when students disagree about a topic discussed in class. This is a didactic process, not a combative one.
5. Due to the great excess of material and limited time in which we must cover, please do not create a disruption for those people who are attempting to learn. Disruptions include blurting out answers, name calling, chiding each other, snoring, etc. Laughing at the Instructor's jokes is obviously exempted from this policy. In addition, personal audio devices (except those in use to record lectures) and loud crunching snack foods are prohibited from the classroom. ***PLEASE TURN OFF YOUR CELLPHONES in class!***
6. Please feel free to make mistakes. We all will from time to time, even your omniscient instructor.
7. Please feel free to make use of my office hours. Waiting until the last moment in the semester to catch up is not advisable. I am excellent at fixing small problems, but horrendous at fixing large ones. The only difference between small and large problems is time.
8. Have fun! The material is only as dry as you make it out to be. Sharpening one's mind can be an exhilarating process.