

Date prepared: 1/22/14

Syllabus
The University of New Orleans
Dept. of Philosophy

PHIL 1101: Introduction to Logic (3 credits)

SECTION 001: LA 236, Tue/Thur, 9:30 - 10:45 p.m.

Contact
Information

Instructor: Dr. Surprenant
Office: UNO: LA 387
Office Hours: M: 3:30-4:00; T: 11:00-11:30; Th: 11:00-4:00
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Course Webpages: Accessed via Moodle.

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Text

[1] Hurley (2003). *Concise Introduction to Logic*, 8th edition. ISBN 0534584829

Course Description

CATALOG DESCRIPTION: An introduction to the study of the methods and principles used to distinguish good reasoning from bad reasoning. Following the study of informal logic, the focus will shift to formal deductive reasoning, including sentential logic.

COURSE OVERVIEW: This course is an introduction to propositional (sentential) and predicate (quantificational) logic. It aims to provide each student with the ability to think rigorously, identify and deconstruct arguments, represent arguments in symbolic notation, and determine the validity of arguments using deductive proofs. A person makes an "argument" when she makes a claim and tries to back that claim up with some evidence. In other words, an argument consists of a claim and some reasons that are supposed to support the claim. Of course, you make and evaluate arguments all of the time, and probably with a good amount of skill. But in this class we step back and ask: what makes a good argument? What principles should we employ to discriminate between good and bad arguments?

This course focuses on understanding the grammar and syntax of our language, not on the rhetorical components of our language that make some arguments more persuasive than others. We will not care about if an argument is persuasive or if it is arguing for a conclusion that we agree or disagree with. We will care about if the conclusion of an argument follows logically from the premises that have been provided, regardless of whether those premises are true or false. What we are undertaking is a rigorous study of our language.

The use of the word *rigor* along with *language* or *verbal expression* appears oxymoronic to most individuals, even most educated individuals. In reality, however, language is subject to as much rigor as mathematics. Linguistic rigor begins with a precise understanding of individual words, including grammatical connectors. From there, it requires knowledge of syntax, or how sentences are structured to convey meaning. Independently of grammar and syntax, rigor in verbal expression requires mastery of the principles of reasoning and their relationship to language. This mastery must include the ability to recognize basic linguistic fallacies, a primary focus of this course.

Determining whether or not the conclusion of an argument follows its premises has nothing to do with opinion or interpretation. Just as the mathematical argument $3 + 4 = 8$ is either *valid* or *invalid* based on the meaning of the symbols 3, 4, 8, +, and =, a linguistic argument is either *valid* or *invalid* depending on the words used to construct it. Understanding the distinction between true statements and valid arguments is central to acquiring wisdom, just as understanding the distinction between persuasive arguments and valid arguments is another component of wisdom. Acquiring these components of wisdom require rigorous training in verbal expression. Completing this training successfully and satisfactorily in an advanced form is intellectually demanding work.

Student Learning Outcomes

Upon successfully completing this course, students will be able to do the following:

- to understand the nature of logic and formal systems
- to understand and to apply the principles of “good” deductive reasoning (both in English and symbolically)
- to understand the following distinctions:
 - o object language vs. metalanguage
 - o informal logic vs. formal logic
 - o deductive logic vs. inductive logic
 - o sentences vs. statements
 - o statements vs. statement forms
 - o arguments vs. argument forms
 - o cogency vs. validity
 - o assumptions vs. presumptions
- to identify informal fallacies in arguments
- to diagram the structure of arguments
- to translate syllogistic arguments into standard form
- to evaluate syllogistic arguments using Venn Diagrams
- to translate English sentences into the language of propositional logic
- to construct truth tables for the purpose of comparing statements and evaluating arguments
- to read, understand, and construct formal proofs

Grades will be based on a 100 point scale distributed as follows:

Requirement			Final grade	
Exam 1	(33%)	33 points		
Exam 2	(33%)	33 points	A	100.0 – 89.5 points
Exam 3	(33%)	34 points	B	89.4 – 79.5 points
Final Exam	(0%)	0 points	C	79.4 – 69.5 points
	or	(33%) 33 points	D	69.4 – 59.5 points
	or	(66%) 66 points	F	59.4 — 0 points
	or	(100%) 100 points		

Course Requirements

ATTENDANCE: The University of New Orleans has a strict attendance policy. Attendance is kept via daily (or almost daily) quizzes.

PROBLEM SETS AND QUIZZES: You will have weekly problem sets and pop quizzes. Problem sets and quizzes are graded on the following scale: $\sqrt{+}$, $\sqrt{}$, $\sqrt{-}$, and 0. A student’s average problem set grade at the end of the semester will correspond to the following final grade adjustments: $\sqrt{+}$ (+1/2 of a letter), $\sqrt{}$ (no change), $\sqrt{-}$ (-1/2 of a letter), 0 (- full letter). Late problem sets are accepted only in cases of documented medical illness or family emergency. Quizzes cannot be made up and students will be excused only in cases of documented medical illness or family emergency.

EXAMS: There are three in-class exams and a final exam. Each in-class exam is worth 33% of your final grade for the course. Students who are happy with the grades from their three in-class exams do not have to take a final exam. Students who are not happy with their scores on any or all in-class exams may choose to take the final. The final exam has three parts, with each part corresponding to the in-class exams. Students may choose to take the first part, the second part, the third part, any two parts, or all three parts. For students taking any or all parts of the final exam, their final exam grade will replace the grade(s) earned on the respective in-class exam(s). So, for example, a student happy with his grades on exams 2 and 3 may choose to take part 1 of the final exam. In that case, that student’s grade on part 1 of the final exam will replace his/her grade on exam 1.

Course Policies

What follows are my class policies. If for any reason you are unable to abide by these policies, you should withdraw from this course.

ACADEMIC DISHONESTY: Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at <http://www.studentaffairs.uno.edu>.

STUDENT CONDUCT: Feel free to say anything to me or to your peers, but tailor your remarks so as not to be uncivil, abusive, or inappropriate. I will not tolerate ANY abusive behavior, so do not engage in any personal attacks or name calling.

ELECTRONICS: There is no reason for you to be using a computer, tablet, or phone in class. If I see you using one, we will stop class, have a quiz, and the student who had his or her phone out will automatically receive a 0 on the quiz.

DISABILITY ACCOMODATIONS: It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to <http://www.ods.uno.edu>.

INCOMPLETES: Incompletes are STRONGLY discouraged. Should you need to take an incomplete, arrangements must be made with me well before the last class meeting.

LATE-STARTS: There are no special dispensations for late-start students.

MAKE-UPS: There are no make-up exams except in cases premitted by the College.

WITHDRAWALS: You may withdraw from this course for any reason. Withdrawal is strictly up to you and none of my business. Look in the university calander for the last day to withdraw without a 'W' appearing on your transcript.

Course Schedule

- Week 1 (1/14 & 1/16)** - Recognizing Arguments (pp. 1-5; 14-24; 32-38; 42-49)
Week 2 (1/21 & 1/23) - Argument Diagramming (pp. 61-66)
Week 3 (1/28 & 1/30) - Informal Fallacies (pp. 110-183)
Week 4 (2/4 & 2/6) - Categorical Propositions & Venn Diagrams (pp. 188-203, 249-256)
*****Exam 1 held on February 11*****
Week 5 (2/13) - Introduction to Propositional Logic (pp. 290-297)
Week 6 (2/18 & 2/20) - Translation of Ordinary Language into Logical Notation (pp. 298-301)
Week 7 (2/25 & 2/27) - Introduction to Propositional Logic & Truth Functions (pp. 290-324)
Week 8 (3/4 & 3/6) - Mardi Gras/Spring Break
Week 9 (3/11) - Exam Review
*****Exam 2 held on March 13*****
Week 10 (3/18 & 3/20) - Introduction to Propositional Logic, Implication Rules (pp. 361-378)
Week 11 (3/25 & 3/27) - Propositional Logic Rules of Replacement (pp. 379-385)
Week 12 (4/1 & 4/3) - Propositional Logic, Conditional Proof (pp. 386-394)
Week 13 (4/8 & 4/10) - Propositional Logic, Indirect Proof (pp. 395-400)
Week 14 (4/15 & 4/17) - Proof Practice
*****Exam 3 held on April 24*****
Week 15 (4/29 & 5/1) - Review Course Material, Introduce concepts of Advanced Logic