

INSTRUCTOR: Samuel A. Taylor
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OFFICE: 1234 Philosophy Building
 OFFICE HOURS: 10:30-12:00 MWF or by appointment

COURSE DESCRIPTION: In this course we will explore some of the methods and principles that distinguish logically correct from incorrect reasoning. We'll investigate both formal and informal techniques for evaluating every-day argumentation. Some find this material fascinating in its own right. Others value this material for its uses in philosophy, mathematics, and computing. Logical skills are not only an important component of aptitude tests such as the GRE and LSAT, but are also valuable in almost any course or job that involves using analytical techniques.

GOALS & OBJECTIVES: As a result of studying these topics students will gain a wide range of knowledge and develop a number of skills necessary for success in any field. Completing this course will help students:

- Understand logical concepts such as: argument, proof, logical consequence, validity, etc.
- Test the deductive validity of arguments using Venn diagrams and truth tables.
- Construct formal proofs using inference and replacement rules.
- Understand the distinction between deductive and inductive standards of argument evaluation.
- Recognize arguments in academic, literary, and popular readings.
- Recognize both formal and informal fallacies.
- Improve one's ability to interpret texts and reconstruct arguments.
- Improve one's ability to *evaluate* arguments using both deductive and inductive standards.
- Appreciate various aspects of scientific reasoning; including explanatory, probabilistic, and statistical reasoning.

TEXTS: The only required text is: Patrick Hurley's *A Concise Introduction to Logic* 11th edition (Wadsworth Publishing, 2011). ISBN: 1111346232.

GRADING SCALE:

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
100-98	97-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-0

GRADING: I'll use plus/minus grading, but note that I'll only award an "A+" in extraordinary circumstances. Your final grade will be calculated on the basis of 6 short homework assignments, 5 quizzes, and 3 in class exams.

HOMEWORK ASSIGNMENTS: 10% of your grade will come from homework assignments. Every week I'll assign practice exercises that you should complete at home. However, I'll only collect and grade six sets of these practice exercises throughout the semester. These will be collected on the Friday of the week in which the assignment is listed on the schedule. I will not accept late homework.

QUIZZES: 20% of your grade will come from 6 in-class quizzes on the Friday of the week in which the quiz is listed on the schedule. Your lowest quiz score will be dropped. These quizzes should take 15-20 min. and will quiz you on topics and techniques recently discussed in the class.

EXAMS: 70% of your grade will come from 3 in-class exams (20% each from exams 1 and 2; 30% from the final exam) comprised of true/false, multiple choice questions, extended exercises, and/or essay questions. The dates of the first two exams are listed on the schedule and will only cover the material covered since the last exam. The final exam will

be given during our assigned exam time of finals week. This final exam is cumulative. A make-up exam may be taken *if and only if* you provide proper documentation of illness or a legitimate family emergency is provided.

ACADEMIC HONESTY: Plagiarism and cheating will not be tolerated. These will result in a zero for the assignment and will be reported to the college [*EDIT THIS ON THE BASIS OF THE COLLEGE'S POLICY*]. *Trust me... academic dishonesty is not in your best interest; I will catch you!*

[THE SCHEDULE CAN BE FOUND ON THE NEXT PAGE]

SCHEDULE

*Readings are to be completed *prior* to class time on the day they are listed

Week 1: <i>Basic Concepts in Logic</i>	Day 1: Syllabus and Introduction Day 2: 1.1-1.3 Day 3: 1.4-1.5	
Week 2: <i>Propositional Logic</i>	Day 1: Cont'd Day 2: 6.1-6.2 Day 3: 6.3-6.4	Assignment #1
Week 3: <i>Propositional Logic</i>	Day 1: Continued Day 2: 6.6 Day 3: 6.6	Quiz #1
Week 4: <i>Natural Deduction</i>	Day 1: 7.1-7.2 Day 2: Cont'd Day 3: 7.3-7.4	Assignment #2
Week 5: <i>Natural Deduction</i>	Day 1: Cont'd Day 2: 7.5-7.6 Day 3: Cont'd	Quiz #2
Week 6: <i>Natural Deduction</i>	Day 1: Cont'd Day 2: Catch Up & Review Day 3: EXAM 1	
Week 7: <i>Categorical Logic</i>	Day 1: 4.1-4.3 Day 2: 4.5-4.6 Day 3: 4.7	Assignment #3
Week 8: <i>Categorical Logic</i>	Day 1: 5.1-5.2 Day 2: Cont. Day 3: 5.4-5.6	Quiz #3
Week 9: <i>Informal Fallacies</i>	Day 1: 3.1-3.2 Day 2: 3.3 Day 3: 3.4-3.5	Assignment #4
Week 10: <i>Informal Fallacies</i>	Day 1: Cont'd Day 2: Catch Up & Review Day 3: EXAM 2	
Week 11: <i>Hypothetical/Scientific Reasoning</i>	Day 1: 13.1-13.2 Day 2: 13.3-13.4 Day 3: Cont'd	Assignment #5
Week 12: <i>Probability</i>	Day 1: 11.1-11.2 Day 2: Cont'd Day 3: Cont'd	Assignment #6
Week 13: <i>Probability & Statistical Reason</i>	Day 1: Cont'd Day 2: 12.1-12.2 Day 3: 12.3-12.4	Quiz #4
Week 14: <i>Statistical Reasoning</i>	Day 1: 12.5-12.6 Day 2: Catch Up Day Day 3: 14.1-14.2	Quiz #5
Week 15: <i>Science and Superstition</i>	Day 1: Cont'd Day 2: 14.3-14.5 Day 3: Catch Up & Review	Quiz #6