

Critical Reasoning

Philosophy 200

Spring 2012

“The democracy is only as good as the reasoning ability of its participants.”

CONTACT INFORMATION:

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REQUIRED TEXT:

A Concise Introduction to Logic, by Patrick J. Hurley, 10th Edition, (Thomson-Wadsworth, 2007).

COMPUTER SOFTWARE:

Learning Logic 5.0 (on CD-ROM)

CATALOG DESCRIPTION:

Not open to students who have completed PHIL 100. Examination of the relationship between logic and language. Accelerated introduction to the concepts essential to the identification, analysis and evaluation of arguments, with attention to deduction, induction and common fallacies. Emphasis on the application of these concepts. (Available for General Education, Basic Skills, Critical Thinking)

PREREQUISITES:

Completion of GE Analytical Reading/Expository Writing; either GE Mathematics or MATH 210

INSTRUCTOR'S DESCRIPTION:

This course satisfies the Critical Thinking component of the Basic Skill section of the General Education Program, which recognizes critical reasoning as a fundamental competence. Courses in this section of General Education take reasoning itself as their focus. Their goals are to provide students with criteria and methods for distinguishing good reasoning from bad and to help students develop basic reasoning skills that they can apply both within a broad range of academic disciplines and outside the academic environment. Students are expected to acquire skill in recognizing the logical structure of

statements and arguments, the ability to distinguish rational from non-rational means of persuasion, skill in applying the principles of sound reasoning in the construction and evaluation of arguments, and an appreciation of the value of critical reasoning skills in the pursuit of knowledge.

STUDENT LEARNING OUTCOMES:

Students will:

1. Explain and apply the basic concepts essential to critical examination and evaluation of argumentative discourse;
2. Use investigative and analytical thinking skills to examine alternative, explore complex questions and solve challenging problems;
3. Synthesize information in order to arrive at reasoned conclusions;
4. Evaluate the logic and validity of arguments, and the relevance of data and information;
5. Recognize and avoid common logical and rhetorical fallacies.

The Student Learning Outcomes (SLOs) are achieved through the Course Objectives (COs). Each SLO is targeted by one or more COs, and each CO targets one or more SLOs. The course activities are designed to meet specific COs, and the student performance during these activities is monitored and assessed. The activities include lectures, tests, quizzes, and examinations. Additional activities such as recitations, critiques, and other comparable occurrences may be included. They are effective means of meeting the COs, hence achieving the SLOs through the COs.

COURSE OBJECTIVES:

1. Students will perform informal analysis of reasoning, which includes distinguishing arguments from non-arguments, identifying the conclusion (which is sometimes unstated), identifying the premises (any of which may be unstated), recognizing and clarifying ambiguous, vague, and otherwise muddled passages by paraphrasing, summarizing, and simplifying them.
2. Students will perform formal analysis of reasoning, which includes exposing the logical structures of arguments by displaying their inference tree diagrams, which identify logical dependence relations among the premises and conclusion.
3. Students will evaluate the validity of arguments. This involves identification and application of informal and formal validity-conferring characteristics of arguments, as well as identification of informal and formal fallacies.
4. Students will evaluate the soundness of valid arguments. This involves evaluation of the acceptability of the premises.
5. Students will evaluate the inductive strength of invalid arguments. This involves understanding and application of the notions of size, relevance, and representativeness of a sample.

The SLOs are targeted by the corresponding COs as follows:

SLO 1 COs 1-5	SLO 2 COs 3-5	SLO 3 COs 1-5	SLO 4 COs 3-5	SLO 5 COs 3-5
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COURSE REQUIREMENTS and METHODS OF EVALUATION:

1. Exam 1 (30%) --The exam includes multiple choice, true/false questions and short answers to logical problems.
2. Quizzes (30%) --There are approximately 6 quizzes. You are allowed to drop the lowest quiz grade. The remainder will be averaged for 30% of your final grade. Quizzes provide continuous feedback on the course material and prepare you for the exams.
3. Participation/Attendance/Punctuality (10%) --Attendance and punctuality will be noted at each class session. Participation will be judged on the basis of your willingness to take an active role in the class, e.g., response to exercises and discussion of lecture material.
4. Exam II (30%) --Comprehensive but focusing attention on the last half of the course material. The second exam covers propositional logic that involves basic concepts learned throughout the course. There is no Final Exam in the course.

GRADING STANDARDS:

Final %	92	90-91.9	88-89.9	82-87.9	80-81.9	78-79.9	72-77.9	70-71.9	68-69.9	62-67.9	60-61.9	59
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

STUDENTS WITH DISABILITIES:

If you have a disability, please identify yourself to me and to the University so that we can reasonably accommodate your learning and the preparation and evaluation of the work that you must do for this course. Please contact the Center on Disabilities, Student Services Building, Room 110, 818.677.2684 (fax: 818.677.4932; email: sdr@csun.edu). For more information, visit the COD's website at the following address: <http://www.csun.edu/cod>.

FORMAT:

Lectures and Practical Exercises--Initially lectures will be given to introduce new material or difficult concepts. The majority of this course will be devoted to detailed examination of

solutions to exercises in *A Concise Introduction to Logic*. Students will be required to present homework exercises to the class.

CLASS ETIQUETTE AND POLICIES:

There are no shortcuts to learning logic. The subject demands that students learn in the old-fashioned manner of time-consuming and disciplined study. This means you must spend time reading the text, doing all the exercises, devote your attention to lectures and involve yourself in critical discussion of the material covered.

Violations to the course policies, especially when they result in a disruption to the class, will result in penalties to the student's participation grade.

1. Attendance is necessary but not sufficient to do well in this course. If you do miss any class session, find out before coming to class what you missed and make sure you are prepared for the next class session. Excessive absence, defined as 6 to 8 absences, will significantly lower your grade and normally results in failure.
2. If attendance alone is not sufficient, another necessary requirement for doing well in the course is *preparation* for each class. As a general rule of thumb, you should spend *at least* two hours outside of class preparing for each hour spent in class. (Students who do not prepare for class by doing assigned readings and exercises generally fail the course.)
3. Punctuality for class is a requirement, not an option. Class starts on time and you are expected to be seated and ready for class. Students who arrive late will be penalized for each violation. Each late arrival will be noted and points will be deducted from the participation/attendance/punctuality grade.
4. Leaving class without prior permission from the instructor will not be permitted, especially after quizzes given at the beginning of the class period. If you have a legitimate reason for leaving class early, ask your instructor for permission before class begins.
5. Eating in class is not permitted.
6. Excessive talking in class is disruptive to other students and the instructor. You are permitted to sit anywhere in the class that you wish unless your behavior becomes a disturbance. If you cannot resist talking to your classmates in class, you will be assigned a seat apart from one another. All questions related to the course material during class should be directed to the instructor.
7. You are required to sit the exams during the scheduled times. Do not schedule anything that conflicts with the exams. Do not assume that a make-up exam or quiz will be given if you miss class. There are no make-up quizzes or exams for unexcused absences. If an absence is excused, prior notification is required. Make-ups are rare and given only under extreme circumstances. Documentation such as a doctor's note or police report will be required for an excused absence.

8. Please turn off cell phones, pagers and any other electronic devices during class time. This includes text messaging. “Off” means “off,” not vibrate. Laptop computers are an exception if they are used for class notes.

9. There will be no extra credit assignments in lieu of failing exams or quizzes.

10. The last day to withdraw from the course is *Friday, February 10*. After that date, withdrawals are not permitted.

11. The instructor is committed to upholding the university’s policy regarding academic dishonesty. See the university catalogue, Appendix C, Academic Dishonesty.

TENTATIVE SCHEDULE OF TOPICS:

1. Introduction to Logic and Critical Reasoning

Basic Logical Concepts
Arguments and Explanations
Deduction and Induction
Truth, Validity and Soundness
Strength and Cogency
Informal Fallacies (selected)

Readings and Exercises: Chapters 1 and 3

EXAM 1 (Mid-term, tentatively March 15.)

2. Elementary Propositional Logic

Symbols and Translation
Truth Tables for Propositions
Truth Tables for Arguments
Argument Forms and Fallacies
Natural Deduction

Readings and Exercises: Chapters 6 and 7

EXAM 2 (Last Week of the Semester, May 10.)