WILLIAM RAINEY HARPER COLLEGE
LIBERAL ARTS DIVISION
GENERAL COURSE OUTLINE

PHI	102	Symbolic Logic	3-0	3
Course Prefix	Course Number	Course Title	(Lec-Lab)	Semester Hours

COURSE DESCRIPTION
Introduces the student to formal symbolic logic. After an introduction to the concept of argument, students will learn both Aristotelian and modern symbolic logic. Applications to the real world may include contracts, legal arguments, and computer languages.

TOPICAL OUTLINE
I. Arguments: premises, conclusions, and indicator words
II. Propositions, truth-values, induction v. deduction
III. Validity, invalidity, counterexamples
IV. Aristotelian logic
V. Modern symbolic logic
VI. Formal fallacies

METHODS OF PRESENTATION
1. Lecture
2. Models of problem solving
2. Student presentations of homework problems
3. Computer based instruction using CD-ROMs that accompany textbooks

STUDENT OUTCOMES: (*The student should . . .*)
1. identify arguments, premises and conclusions.
2. distinguish between inductive and deductive arguments.
3. prove invalidity through the use of counterexamples and truth tables.
4. identify the elements and attributes of categorical propositions.
5. test the validity of arguments by using the square of opposition.
6. construct truth table definitions for symbols used in propositional logic.
7. translate compound statements and arguments into symbolic form.
8. construct a variety of proofs, using rules of inference and replacement.
9. construct conditional and indirect proofs.
10. analyze ordinary language arguments using the methods of formal logic.

METHODS OF EVALUATION
1. Exams and quizzes
2. Daily homework assignments of problem sets from the text. Such assignments would include, for example, translation of ordinary language arguments to symbolic logic, use of truth tables to establish the validity or invalidity of arguments, use of the rules of inference and replacement to derive the conclusions of arguments from their premises.

TEXTBOOKS/INSTRUCTIONAL MATERIALS

Copi, Cohen, & McMahon. Introduction to Logic 14th Edition. Prentice Hall, 2010
ISBN: 0205820379

Hurley, Patrick J.. A Concise Introduction to Logic 12th Edition. Wadsworth, 2014
ISBN: 1285196546

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