NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

PHI 111 - LOGIC I (3 CR.)

COURSE DESCRIPTION

Introduces inductive and deductive reasoning and the basic methods of symbolic logic, with an emphasis on common errors and fallacies. Lecture 3 hours per week.

GENERAL COURSE PURPOSE

To introduce the student to logic as the study of techniques used to distinguish correct from incorrect reasoning. Several methods of evaluating reasoning will be stressed. The basic distinction between inductive and deductive reasoning will be emphasized.

ENTRY LEVEL REQUIREMENTS

None

COURSE OBJECTIVES

At the completion of this course, the student will have developed an understanding of the role logic plays in the reasoning process. Specifically, the student should be able to:

A. Define such terms as "statement," "argument," premise," "conclusion," "fallacy," "valid," "sound," "syllogism," "truth-function," etc., which are common in the study of logic.
B. Distinguish between induction and deduction, validity and invalidity, formal and informal fallacies, syllogistic and truth-functional logic.
C. Identify and discuss several of the more common informal fallacies.
D. Discuss the various relationships among categorical propositions.
E. Identify the major, minor, and middle terms of categorical syllogisms; name the moods and figures of these syllogisms, and test them for validity using Venn diagrams and the rules of syllogistic inference.
F. Be familiar with the symbols for conjunction, negation, disjunction, material implication, and material equivalence; be able to use these symbols in basic truth functional operations.

MAJOR ELEMENTS OF CONTENT

Critical attention will be given to several of the following topics:

A. The definition and analysis of arguments; various uses of language; definitions.
B. Informal fallacies in reasoning.
C. Categorical propositions and syllogisms; Venn diagrams; rules of syllogistic inference
D. Arguments in ordinary language
E. Symbolic logic: the symbols for conjunction, negation, disjunction, material implication, and material equivalence; use of such symbols in truth tables; basic rules of inference in symbolic logic.
F. Application of the above in the testing of arguments to distinguish correct from incorrect reasoning.

Revised 10/95