

Dakota County Technical College

PHIL 1250: Introduction to Logic

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:

This course requires both of these prerequisite categories

1. A score of 78 on test Accuplacer Reading Comprehension
And
2. One of these two
MATS 0310 - Algebra Skills Lab
A score of 51 on test Accuplacer Elementary Algebra

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

Students will learn to identify, analyze, and evaluate arguments derived from real-world problems using skills in formal logic. Concepts in informal logic will not be covered.

Prerequisites: Accuplacer score of 78 or higher in Reading Comprehension OR College Reading I, AND Accuplacer score of 51 or higher in Elementary Algebra OR MATS0305 Introduction to Algebra. Meets MnTC Goal 4.

B. COURSE EFFECTIVE DATES: 01/13/2014 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Categorical propositions
2. Categorical syllogisms
3. Inductive and deductive logic
4. Natural deduction
5. Propositional Logic

D. LEARNING OUTCOMES (General)

1. Evaluate arguments for validity, strength, and truth.
2. Evaluate arguments using methods of propositional logic, including truth tables.
3. Evaluate categorical syllogisms using Venn diagrams
4. Translate ordinary language into categorical propositions.
5. Use principles of inductive logic to analyze and evaluate analogical, legal, moral, statistical, and scientific problems.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 04 - Mathematical/Logical Reasoning

1. Illustrate historical and contemporary applications of mathematical/logical systems.
2. Clearly express mathematical/logical ideas in writing.
3. Explain what constitutes a valid mathematical/logical argument(proof).
4. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted