Minnesota State University Moorhead

PHIL 340: Symbolic Logic

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

A survey of deductive logic, emphasizing the use of symbolism to interpret and evaluate arguments. Includes propositional and predicate logic. MnTC Goal 4.

B. COURSE EFFECTIVE DATES: 01/29/1999 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Truth tables.
2. Validity and invalidity.
3. Propositional logic.
4. Predicate logic.
5. Indirect and conditional proofs.
6. Translation from English into propositional logic and predicate logic.

D. LEARNING OUTCOMES (General)

1. Construct truth tables and use them to determine validity.
2. Translate from English into propositional logic.
3. Construct valid proofs in propositional logic.
4. Construct valid proofs using indirect and conditional arguments.
5. Translate from English into predicate logic.
6. Construct valid proofs in predicate logic.

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

Goal 04 - Mathematical/Logical Reasoning

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

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted