

Minnesota State University Moorhead

MATH 355: Mathematical Modeling

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:

This course requires the following prerequisite

MATH 323 - Multi-Variable and Vector Calculus

Corequisites: None

MnTC Goals: None

Techniques of developing and analyzing mathematical descriptions of physical phenomena.

B. COURSE EFFECTIVE DATES: 06/01/1995 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Practical aspects of model building.
2. Axiom systems and models.
3. Simulation models.
4. Stochastic models.
5. Linear programming models.

D. LEARNING OUTCOMES (General)

1. Solve real world problems using mathematical/logical systems.
2. Express mathematical/logical ideas clearly in writing.
3. Apply a variety of higher-order problem-solving and modeling strategies.
4. Analyze the assumptions made in a modeling process.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted