A. Course Description

Credits: 4

Prerequisites: MATH 098 Introduction to Mathematical Thinking
OR
MATH 102 Mathematics of Sustainability

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

This course develops the fundamental concepts of algebra with an emphasis on the classification and analysis of linear, quadratic, polynomial, exponential and logarithmic functions. Applications to the natural and social sciences are given throughout. It aims to provide insights into the nature and utility of mathematics, and helps students develop mathematical reasoning skills.

B. Course Effective Dates: 08/01/1998 - 09/05/1999 09/06/1999 - 07/01/2007 07/02/2007 - 08/14/2010 08/15/2010 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Demonstrate sophisticated comprehension of the properties of polynomial, exponential and logarithmic functions.
2. Recognize and utilize appropriate function models to abstractly represent and solve real-world problems involving polynomial, exponential or logarithmic patterns.
3. Understand and utilize multiple representations of functions, including algebraic, geometric, and numeric.
4. Understand concept of function and function notation.

E. Learning Outcomes (MN Transfer Curriculum)

Goal 04 - Mathematical/Logical Reasoning

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

G. Special Information

Prerequisite: A grade of C- or higher in MATH 98 or MATH 102, or placement at MATH 115 College Algebra on the mathematics assessment test offered by the Placement Assessment Office. Those who have completed intermediate algebra or equivalent at other institutions would contact the Math and Statistics Department for an override at MATH@metrostate.edu. First day attendance required except by instructor permission.