

# Minnesota State University Moorhead

## MATH 127: College Algebra

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

This course requires any of these nine prerequisites

MATH 095 - Elementary/Intermediate Algebra

MATH 099 - Intermediate Algebra

A score of 22 on test ACT Math

A score of 50 on test Accuplacer College Level Math

A score of 1 on test Transfer Equivalent to MDEV 127

A score of 1 on test Transfer Equivalent to MATH 099

A score of 1158 on test MN Comprehensive Assessment Math

A score of 540 on test OLD-SAT Math

A score of 540 on test SAT Math Composite

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

Exponents, factoring, equations, inequalities, systems of equations, functions, exponential and logarithmic functions, polynomials and rational functions. Must have successfully completed Intermediate Algebra or have an acceptable placement score. Requires a C- or better in MDEV 099. MnTC Goal 4.

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

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Radicals and rational exponents
2. Factoring polynomials
3. Rational expressions
4. Graphs (lines, quadratic, exponential, logarithmic, polynomial, rational, transformations of graphs)
5. Solving equations (linear, quadratic, polynomial, rational, exponential, logarithmic, etc.)
6. Linear, polynomial, and rational inequalities
7. Functions (including inverse functions, exponential functions, and logarithmic functions)

### D. LEARNING OUTCOMES (General)

1. Solve a variety of algebraic equations.
2. Create and understand graphs.
3. Work with a variety of functions.
4. Apply a variety of algebraic techniques to real world problems and applications.

## **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