Bemidji State University

MATH 1170: College Algebra

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

Problem solving with linear, quadratic, rational and absolute value equations and inequalities; function notation and inverses; graphs of relations and functions; polynomial, rational, exponential, and logarithmic functions and applications; systems of equations and inequalities, matrices. Prerequisites: Three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test. [Core Curriculum Goal Area 4]

B. COURSE EFFECTIVE DATES: 07/31/2023 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Solution and application of systems of linear equations, matrices, the binomial theorem, sequences, and mathematical induction and solutions either verbally or in writing.
2. Polynomials and rational functions
3. Exponential and logarithmic functions
4. Science/business/finance applications

D. LEARNING OUTCOMES (General)

1. identify with the different families of functions and their graphical representations.
2. examine various methods of solving equations by numerical, algebraic, and graphical techniques.
3. apply multiple problem solving techniques to model, solve and draw conclusions in various problem situations.
4. apply logical arguments to justify their ideas.

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. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted