



Department: Mathematics

Course Name: MAT-010 Basic Algebra

Date Updated: 5/2025

Credit Hours/week: 8 hrs./wk. – N1 cr.

BEGINNING: FALL 2025

Catalog Description: This is an intensive review of topics typically found on the basic algebra placement test. A passing grade satisfies the Basic Algebra requirement.

Prerequisite: Appropriate score on a placement test.

Text: Bittinger, Basic Algebra Review (Custom Edition for County College of Morris), Pearson

Supplementary Material: None

Calculators are often (not always) permitted for use in mathematics classes. A scientific calculator is the most advanced calculator that you will need for any of your courses. An excellent (and affordable) model is the Texas Instruments TI-30XIIS 2 Line Scientific Calculator.

Graphing calculators are sometimes permitted. However, the TI Nspire is not an acceptable graphing calculator. Only TI 84 models or below are acceptable. Calculators that can solve equations or perform other advanced operations are not allowed. Therefore, no Casio model calculators are allowed. There are also some models of Texas Instrument calculators as well as other brands that will not be allowed due to their capabilities.

Use of a calculator that is not permitted on an exam can lead to issues with academic integrity. If you have a question as to whether or not your calculator is acceptable, you need to ask your professor before your first exam.

Syllabus:

Topics
Addition, Subtraction, Multiplication and Division of Real Number; Order of Operations
Substitution in Algebraic Expression (Evaluation)
Addition, Subtraction, Multiplication and Division of Monomials and Polynomials
Simplification of Terms containing Integer Exponents
Factoring. When Factoring Trinomials, Leading Coefficient is Equal to 1
Solution of Linear Equations and Inequalities in One Variable; Solving Problems involving Percent
Translation of English Phrases into Algebraic Equations and Solving
The Rectangle (Cartesian) Coordinate System and Graphs of Linear Equations, using a Table of Values

A Final Exam will be given on the last day of the course.

Note: The grades awarded will be either “P” (for passing the Final); otherwise, a grade of “F” will be given.

Students are expected to adhere to the policies of the County College of Morris. These can be accessed at:

<https://www.ccm.edu/compliance-information/academic-policies/>

Statement of Expected Course LEARNING OUTCOMES

- **Manipulate** mathematical operations, such as absolute value and exponentials, and understand and utilize the order of operations and rules of simplification
- **Solve** linear equations involving one variable and apply methodology to word problems
- **Solve** systems of linear equations involving two variables and apply methodology to word problems
- **Perform** proficiently addition, subtraction, and multiplication of polynomials, and division by a monomial
- **Factor** basic quadratic expressions and equations, and apply methodology to word problems