



# BAKER COLLEGE

## STUDENT LEARNING OUTCOMES

MTH 1110: College Algebra I

3 Semester Hours

### Student Learning Outcomes and Enabling Objectives

1. Analyze linear equations and systems of linear equations.
  - a. Solve linear equations and inequalities.
  - b. Graph linear equations.
  - c. Identify characteristics of the graph of a linear equation, such as the slope and intercepts.
  - d. Solve linear equations with two variables.
  - e. Apply linear equations to real-world situations.
2. Manipulate polynomial expressions.
  - a. Perform the complete set of basic operations on polynomial expressions.
  - b. Factor polynomial expressions.
3. Apply polynomial equations to real-world situations.
  - a. Solve polynomial equations by factoring.
  - b. Apply quadratic equations to real-world situations.
4. Analyze rational equations.
  - a. Perform the complete set of basic operations on rational expressions.
  - b. Solve rational equations.
  - c. Apply rational equations to real-world situations.
5. Apply algebraic concepts to functions.
  - a. Define function notation.
  - b. Evaluate function values.
  - c. Graph functions.
  - d. Perform the complete set of operations, including composition, with functions.
  - e. Describe the inverse of a function.

### Big Ideas and Essential Questions

#### Big Ideas

- Linear Equations and Systems of Linear Equations
- Polynomials
- Rational expressions and equations
- Functions

#### Essential Questions

1. How does algebra help me analyze critically?
2. How can algebra be used to make informed decisions?
3. How can algebra be used to solve real world problems?

These SLOs are not approved for experiential credit.

**Effective: Fall 2017**