

# MATH 1120 – College Algebra I

**Textbook:** *College Algebra with Modeling and Visualization, 3<sup>rd</sup> Edition* by Gary Rockswold, copyright 2006

**Schedule:** Fall, Spring, Summer. 3 credit hours.

**Course Description:**

Graphing, algebra, functions and their graphs, factoring, polynomials, rational expressions, rational exponents, linear and quadratic functions and their applications.

**Prerequisites:** Two years of high school algebra, one year of geometry and a satisfactory placement exam score, or grade of C or higher in MATH 95.

**Topics Covered:** Numbers, Data, and Problem Solving (Chapter 1, Section 1)  
Visualization of Data (Chapter 1, Section 2)  
Integer Exponents (Chapter R, Section 3)  
Polynomial Expressions (Chapter R, Section 4)  
Functions and Their Representations (Chapter 1, Section 3),  
Types of Functions and Their Rates of Change (Chapter 1, Section 4)  
Linear Functions and Models (Chapter 2, Section 1)  
Equations of Lines (Chapter 2, Section 2)  
Linear Equations (Chapter 2, Section 3)  
Linear Inequalities (Chapter 2, Section 4)  
Factoring Polynomials (Chapter R, Section 5)  
Rational Expressions (Chapter R, Section 6)  
Radical Notation and Rational Exponents (Chapter R, Section 7)  
Radical Expressions (Chapter R, Section 8)  
Quadratic Functions and Models (Chapter 3, Section 1),  
Quadratic Equations and Problem Solving (Chapter 3, Section 2),  
Modeling Data (supplemental material)

**Calculator:** A *graphing* calculator is required for Math 112. If you are contemplating the purchase of a new calculator, the best model is the TI-83 Plus or a TI-84. If you already own a high-end graphing calculator that is equivalent to a TI-83 Plus or TI-84 (or better) you are welcome to use it in the course.

**Grading Scale:** A: . . . 90-100% . . . . 585 – 650 points  
B: . . . 80-89% . . . . 520 – 584 points  
C: . . . 70-79% . . . . 455 – 519 points  
D: . . . 60-69% . . . . 390 – 454 points

**Additional Resources:**

The Math and Stats Tutoring Center provides a variety of resources, including books, videos, old tests, and tutors. Please stop by and check them out at 208 Moseley Hall. You can also find them on the web at <http://www.bgsu.edu/offices/acen/mathlab>

Last revised April, 2009