

MATH M001 Introductory Algebra
Tentative Syllabus

Textbook: either book listed below is suitable for this course

- *Introductory Algebra, Custom Edition for IUPUI*, Bittinger, Ellenbogen & Johnson
- *Elementary & Intermediate Algebra: Concepts & Applications, 5th Ed*; Bittinger, Ellenbogen & Johnson

Week	Topics
1	Introduction 1.1 Introduction to Algebra 1.2 The Commutative, Associative, and Distributive Laws 1.3 Fraction Notation 1.4 Positive and Negative Real Numbers
2	1.5 Addition of Real Numbers 1.6 Subtraction of Real Numbers 1.7 Multiplication and Division of Real Numbers 1.8 Exponential Notation and Order of Operations
3	2.1 Solving Equations 2.2 Using the Principles Together 2.3 Formulas 2.4 Applications With Percents
4	Exam #1; Chapters 1 and 2 (2.1 – 2.4) 2.5 Problem Solving 2.6 Solving Inequalities 2.7 Solving Applications With Inequalities
5	3.1 Reading Graphs, Plotting Points, and Scaling Graphs 3.2 Graphing Linear Equations 3.3 Graphing Intercepts 3.4 Rates
6	3.5 Slope 3.6 Slope – Intercept Form 3.7 Point – Slope Form
7	Exam #2; Chapters 2 (2.5 – 2.7) and 3 4.1 Exponents and Their Properties 4.2 Negative Exponents and Scientific Notation
8	4.3 Polynomials 4.4 Addition and Subtraction of Polynomials 4.5 Multiplication of Polynomials 4.6 Special Products 4.7 Polynomials in Several Variables
9	4.8 Division of Polynomials Exam #3; Chapter 4

Week	Topics
10	5.1 Introduction to Factoring 5.2 Factoring Trinomials of the Type $x^2 + bx + c$ 5.3 Factoring Trinomials of the Type $ax^2 + bx + c$ 5.4 Factoring Perfect-Square Trinomials and Differences of Squares 5.5 Factoring Sums or Differences of Cubes
11	5.6 Factoring: A General Strategy 5.7 Solving Quadratic Equations by Factoring 5.8 Solving Applications
12	Exam #4; Chapter 5 6.1 Rational Expressions 6.2 Multiplication and Division
13	6.3 Addition, Subtraction, and Least Common Denominators 6.4 Addition and Subtraction with Unlike Denominators 6.5 Complex Rational Expressions 6.6 Solving Rational Equations
14	6.7 Applications Using Rational Equations and Proportions Exam #5; Chapter 6
15	Review for the Final Exam