

College Algebra

YEAR COURSE OFFERED: Each Year

SEMESTER COURSE OFFERED: Fall, Spring, Summer

DEPARTMENT: Math

COURSE NUMBER: 1314

NAME OF COURSE: College Algebra

NAME OF INSTRUCTOR: Varies

The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Learning Objectives

Upon successful completion of this course, students will:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices.

Major Assignments/Exams

Three exams and a cumulative final exam.

Required Reading

Algebra: Form and Function

by William G. McCallum, Eric Connally, Deborah Hughes-Hallett, Philip Cheifetz, Ann Davidian, Patti Frazer Lock, David Lovelock, Ellen Schmierer, Pat Shure, Carl Swenson, Elliot J. Marks
November 2009, ©2010. J. Wiley Publisher

Recommended Reading

None

List of discussion/lecture topics

- 1: The Key Concepts of Algebra.
- 2: Rules for Expressions and the Reasons for Them.
- 3: Rules for Equations and the Reasons for Them.
- 4: Functions, Expressions, and Equations.
- 5: Linear Functions, Expressions, and Equations.
- 6: Rules for Exponents and the Reasons for Them.
- 7: Power Functions, Expressions, and Equation
- 8: More on Functions.