

**MATHEMATICS DEPARTMENT  
COURSE OF STUDY**

**HONORS ALGEBRA II**

2020-2021

**Course Number:** 522  
**Prerequisites:** Prealgebra, Algebra 1  
with Successful Placement Test Results or  
Honors Algebra 2, and Department Recommendation.  
**Calculators:** TI-83 or TI-84

Prerequisites: Prealgebra, Algebra I, Placement Test and/or Department Recommendation

Course Description: This course is designed to provide the student with a thorough treatment of all the major topics of basic algebra. These topics include: the operations and axioms of real numbers; operations with polynomials, exponents, radicals and rationals; the solution and graph of linear quadratic, cubic, and quartic polynomial functions and relations; the solution and graph of exponential, logarithmic, rational and radical functions; the solution and graph of systems of linear and quadratic functions and relations; variation; conics, sequences, series and probability & an introduction to trigonometry.

- Unit 1: Sets of Numbers, Properties & Proofs
- Unit 2: Exponents & Properties
- Unit 3: Polynomials & Operations
- Unit 4: Radicals & Operations
- Unit 5: Rational Algebraic Expressions & Operations
- Unit 6: Exponential & Logarithmic Expressions
- Unit 7: Functions and Relations
- Unit 8: Equations and their Solution Sets.
- Unit 9: Inequalities and their Solutions Sets
- Unit 10: Graphing the Family of Functions, Conics, Midpoint, Distance
- Unit 11: Systems
- Unit 12: Problem Solving
- Unit 13: Sequences and Series
- Unit 14: Introduction to Trigonometry