# Troy High School
## Course Profile

**Course Title:**   Algebra 2 Honors

**Course Prerequisites:** Refer To Registration Presentation

**Course Description:**

Algebra 2 Honors completes the three-year college-preparatory mathematics sequence. The course will emphasize an exploration of functions and equations and their applications. The student will study linear, quadratic, polynomial, exponential, logarithmic, and rational functions. Additional topics include systems of equations and inequalities, powers, roots and radicals, conics, sequences and series, and probability and statistics. Topics are presented with an emphasis on mathematical rigor and real-life applications.

**Students entering this course should already have a mastery of the following concepts and possess the following skills:**

- Solve multi-step equations and inequalities as well as systems of equations
- Use rules of exponents to simplify expressions and evaluate powers
- Multiply two binomials and simplify polynomial expressions
- Factor quadratic expressions and solve quadratic equations with multiple methods
- Simplify radical expressions
- Graph and determine the equation of a line
- Simplify rational expressions and solve rational equations

**Workload Expectations for this course (list typical amount of homework, projects, presentations, papers, etc.):**

- Students should expect nightly homework, typically ranging from 35 to 70 minutes.