

**Mansfield Independent School District
Mathematics Assurances
Algebra II**

Assurances

By the end of this course, students will:

- Possess strong algebraic skills.
- Identify and apply transformations of all types of functions: linear, quadratic, absolute value, square root, cube root, logarithmic, exponential, and rational.
- Identify (using set and interval notations) domain and range of all functions: linear, quadratic, absolute value, square root, cube root, logarithmic, exponential, and rational.
- Identify, graph, and write equations for conic sections: circles, ellipses, hyperbolas, parabolas.
- Solve systems of equations including those with 3 variables.
- Solve equations involving: quadratics, logarithmic functions, exponential functions, and rational functions.
- Simplify and solve rational, polynomial, and exponential functions.
- Apply concepts to real-world situations.