YOUNG WOMEN'S Leadership Academy

Algebra 2 / 2026-2027 Instructional Plan

8/4/2026

Contact Information
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WHAT IS Honors?

The purpose of honors courses is to bridge the gap between regular and Advanced Placement (AP) or Pre-AP classes. They serve as an important part of a tiered academic pathway by offering more rigorous instruction and deeper learning than standard courses.

COURSE DESCRIPTION

Honors Algebra II is a rigorous, fast-paced course designed for students seeking an in-depth understanding of advanced algebraic concepts. Building on the foundations of Algebra I and Geometry, this course explores complex functions, polynomial and rational expressions, radical and exponential relationships, and sequences.

The honors-level curriculum emphasizes critical thinking, abstract reasoning, and mathematical communication. Students will be expected to analyze and justify methods, explore multiple solution pathways, and demonstrate fluency with a variety of algebraic techniques. Additional enrichment topics such as introductory trigonometric concepts may be included to prepare students for future advanced mathematics coursework such as Pre-Calculus, AP Mathematics, or dual-credit options.

This course adheres to the Texas Essential Knowledge and Skills (TEKS) for Algebra II.

COURSE ACTIVITIES

Below you will find descriptions of the most common activities that students will participate in during the course of each semester.

Throughout the year, students will:

Problem-Based Learning Tasks
Engage in multi-step, real-world problems that require synthesis of multiple algebraic concepts (e.g., modeling population growth with exponential functions or analyzing business profits using quadratic equations).

Mathematical Modeling Projects
Create and analyze models to represent real-world scenarios using polynomial, exponential, logarithmic, and rational functions.

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Function Exploration Labs
Use graphing calculators or Desmos to investigate behavior of functions, including transformations, domain/range, zeros, asymptotes, and inverse relationships.

Technology Integration
Incorporate online platforms for formative assessment and interactive practice (e.g., DeltaMath, Khan Academy, or Google Classroom).

Performance Assessments
Demonstrate mastery of skills through open-ended tasks, concept-based assessments, and presentations of mathematical reasoning.

Include "explain your thinking" components in quizzes and tests.

GRADES - Click here for → YWLA Grading Policy

Major (Test, Quizzes)	60%
Minor (Homework Checks)	40%

** YWLA High School Math all use homework checks as minor grades instead of homework. We believe that homework should be penalty free practice and that students should have access to immediate feedback. We make sure students have a way to check their answers as they are working out the problems. **

Each day, you will come in and take a short homework quiz that will check your understanding of the prior lesson.

Classroom Resources (examples below)

- Google Classroom - All resources and curriculum will be posted daily
- Texas Essential Knowledge and Skills (TEKS)
- TEKS Aligned Resources
- TEKS Aligned Teacher Material

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COURSE OBJECTIVES AND TOPICS:

- Unit 1 - Foundations for Functions
- Unit 2 - Absolute Value Functions
- Unit 3 - Linear Systems
- Unit 4 - Polynomial Operations
- Unit 5 - Radical Expression and Complex numbers
- Unit 6 - Parabolas and Quadratic Functions
- Unit 7 - Quadratic Equations and Inequalities
- Unit 8 - Radical Equations and Relationships
- Unit 9 - Rational Functions
- Unit 10 - Exponential and Logarithmic Functions

Please feel free to reach out with any questions or concerns. We are excited to work together to make this a successful year of learning!

Mrs. Waters