



Semester 1

Term 1

- **Foundations of Functions and Algebra**
 - Solving 1 and 2 variable equations and inequalities
 - Inverse Functions and verifying inverses with compositions
 - Domain and Range (Set, Interval and Inequality Notations)
 - Linear Regression
- **Absolute Value Functions, Equations, and Inequalities**
 - Absolute Value Functions/Transformations
 - Solve Absolute Value Equations/Inequalities
- **Quadratic Functions**
 - Graphing Quadratic Functions and Transformations
 - Write Quadratic Equations/Key Attributes/Standard and Vertex Form
 - Quadratic Regression

Term 2

- **Quadratic Equations**
 - Factoring Review
 - Solve Quadratic Equations (Factoring, Square Root, Graphing, Completing the Square, Quadratic Formula)
 - Solve Quadratic Inequalities
 - Complex Numbers
- **Systems of Equations**
 - Solve Systems of Equations (Two and Three): Substitution
 - Elimination and Matrices with Technology
 - Solve Systems of Linear Inequalities
 - Linear and Quadratic Systems: Graphically
 - Applications of Systems Equations and Inequalities

Semester Review and Exam



Yearly Overview

ALGEBRA II

2024-2025

Semester 2

Term 3

- **Polynomial Equations**
 - Polynomial Division and Factoring
 - Polynomial Operations (Add, Subtract, Multiply, Factor GCF)
 - **Cubic Functions and Equations**
 - Graphs/Cubic Functions/Transformations
 - **Rational Functions and Equations**
 - Graphs of Rational Functions/Transformations
 - Solve/Formulate Rational Equations
 - Rational Expressions
 - **Inverses**
 - Find equations and graph inverses of Linear, Quadratic, Cubic Functions
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Term 4

- **Radicals**
 - Simplified
 - Graph cube root and square root functions
 - Solved radical equations
 - Solved equations with rational exponents
- **Exponential Functions and Equations**
 - Geometric Sequences
 - Graphs of Exponential Functions/Transformations
 - Solve/Formulate Exponential Equations
 - Inverses and verifying inverses with compositions (Bridge to Logarithms)
- **Logarithmic Functions and Equations**
 - Definition of Logarithm/Solve Log Equations
 - Graphs of Logarithmic Functions/Transformations
 - Inverse and verifying inverses with compositions/Applications
- **Models of Best Fit**
 - Choosing between linear, quadratic, and exponential regression

Semester Review and Exam
