



### **Option 2: Monthly Anchor Assignment**

Monthly Anchor Assignments will be submitted via Moodle, and be graded by the supervising instructor. Information on the Anchor Assignments will be provided at the beginning of the course, along with the rubrics that will be used to evaluate each assignment and the conference. Grades on anchor assignments will be posted in Moodle for the student to gain feedback. Anchor assignments will be due each month.

### **Course Evaluation:**

A. End of course Assessment: 40% of semester grade  
See above

B. Home Participation: 60% of grade

Home participation is to be determined by the home teacher. The participation may include, but is not limited to, textbook activities, quizzes, unit tests, projects, oral reports, or research papers. Grades for home participation will be submitted to the contact teacher who will then forward a copy to the supervising instructor for semester grade tabulation.

C. Grading Scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

### **Standards Based Portfolio**

A Portfolio containing graded examples of student work from the selected curriculum will be required as per school policy, and should be shared with the assigned Contact Teacher once per semester.

### **Pacing Guide**

The topics and standards for this course have been divided between the two semesters.

<b>Semester 1(Fall)</b>	<b>Semester 2 (Spring)</b>
Polynomials	Exponents, roots, and logarithms
Quadratics	Rational Expressions
Solving Equations and Inequalities	Sequences and Series
Linear Relationships	Data and probability
Systems and Matrices	

In order to fulfill this pacing requirement, the recommended texts have been broken down by chapter. Covering the chapters in the order listed will insure that all topics on the final exam will be covered during the appropriate semester.

#### **Glencoe – Algebra 2**

<b>Semester 1(Fall)</b>	<b>Semester 2 (Spring)</b>
Chapter 1	Chapter 8
Chapter 2	Chapter 9
Chapter 3	Chapter 10
Chapter 4	Chapter 11
Chapter 5	Chapter 12
Chapter 6	
Chapter 7	

#### **Holt – Algebra 2**

<b>Semester 1(Fall)</b>	<b>Semester 2 (Spring)</b>
Chapter 1	Chapter 6
Chapter 2	Chapter 8
Chapter 3	Chapter 9
Chapter 4	Chapter 10
Chapter 5	Chapter 11
Chapter 7	Chapter 12

## McDougal Littell – Algebra 2

Semester 1(Fall)	Semester 2 (Spring)
Chapter 1	Chapter 7
Chapter 2	Chapter 8
Chapter 3	Chapter 9
Chapter 4	Chapter 10
Chapter 5	Chapter 11
Chapter 6	Chapter 12

## Prentice Hall – Algebra 2

Semester 1(Fall)	Semester 2 (Spring)
Chapter 1	Chapter 7
Chapter 2	Chapter 8
Chapter 3	Chapter 9
Chapter 4	Chapter 11
Chapter 5	Chapter 12
Chapter 6	
Chapter 10	

## Teaching Textbooks – Algebra 2

Semester 1(Fall)	Semester 2 (Spring)
Lessons 1-76	Lessons 77-130
Graphing Supplement	Data and Probability Supplement

### I-DEA Student Honor Code:

With any form of valid proof of dishonesty with regard to student work or testing, the instructor may elect from a range of actions. Academic dishonesty could lead to a zero grade for the assignment or even failure for the entire course following consultation between the instructor, Secondary Supervisor, and Director.

All students must adhere to the **Honor Code:**

*“On my honor, I will maintain the highest possible standards of honesty, integrity and personal responsibility. This means I will not lie, cheat or steal, and as a member of this academic community, I am committed to creating an environment of respect and mutual trust.”*

### Standards

Standard 1: Concepts and Language of Algebra

Students in Algebra 2 deepen their understanding of the concepts in Algebra include solving equations, solving systems, working with polynomials, and working with imaginary numbers.

- Goal 1.1: Manipulate polynomials to simplify expressions.
  - Multiply and factor polynomials, including quadratic polynomials.
  - Solve polynomial equations and use polynomial equations to solve problems.
  - Find roots of real numbers, simplify radical expressions and solve equations containing radicals.
  - Use synthetic division to find rational roots of polynomial equations.
  - Solve rational equations.
- Goal 1.2: Solve systems of 2 or 3 variables.
  - Solve systems of linear equations and inequalities in two or three variables and use them to solve problems.

## Standard 2: Concepts of Functions

Students in Algebra 2 use functions as a tool to solve problems that include quadratics, quadratic systems, and rational expressions.

- Goal 2.1: Use functions to represent mathematical relationships.
  - Use functional notation, graph functions, and find equations defining linear functions.
  - Work with direct, inverse and joint variation and solve problems.
  - Simplify rational expressions and complex fractions.
- Goal 2.2: Solve relations using quadratic functions and imaginary numbers
  - Graph quadratic functions.
  - Solve quadratic equations by completing the square and using the quadratic formula.
  - Solve quadratic systems.
  - Use the imaginary number  $i$  and work with complex numbers.

## Standard 3: Concepts and Principles of Geometry

Students in Algebra 2 work with the equations for circles and ellipses and find distance, midpoints, and slopes within the coordinate plane.

- Goal 3.1: Understand linear relationship and their graphs.
  - Work with linear equations in two variables and their graphs, find the slope of a line, and find equations for lines.
- Goal 3.2: Understand equations for circles and ellipses.
  - Find equations for and graph circles and parabolas.
- Goal 3.3 Be able to calculate distance and midpoints in the coordinate plane.
  - Use the distance and midpoint formulas.

## Standard 4: Data Analysis, Probability, and Statistics

Students in Algebra 2 model non-linear data using logarithms, exponential, and power functions.

- Goal 4.1: Understand Exponents and Logarithms and how they model real world data.
  - Define and solve logarithmic functions using the laws of logarithms.
  - Use the Laws of Exponents and scientific notation to simplify expressions, solve equations, and solve problems.
  - Work with exponential functions having rational and real number exponents.
  - Apply logarithms to solve exponential growth and decay problems.