Honors Algebra II

Ms. Kristen Clarke
2025-2026
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My **philosophy** as a math teacher is that everyone is capable of being successful in every level of mathematics. We will work towards continuously improving, as well as recognizing the importance of mathematical reasoning in the world around us.

Algebra II works to build on the concepts learned in Algebra I and pushes students to use formal and mathematical reasoning to justify their work. The goal is to prepare students for a fourth level high school math class, as well as to prepare students for the SAT and ACT.

Students in **Honors Algebra II** will be expected to complete high level mathematics in order to prepare them for Honors Pre-Calc and Calculus. The main focus will be on analyzing charts, graphs, and tables of various functions, and have students be able to transition from explaining *what* they did to being able to justify *why* they do it. Group and partner collaboration will play a crucial role in class, and is non-negotiable.

Math and Social Justice

In this course, we will apply our mathematical skills and understanding to help us analyze the world around us. We will cover both historical and present day events and issues, and discuss them with a focus on the mathematical data available to help us make meaning of the world around us. While we may not always agree on topics, this class will focus primarily on the facts, figures, and data available to help guide our thinking.

Many of our social justice activities and projects will rely on class discussion or collaborative work. Students are expected to adhere to our classroom and school discussion norms.

LBHS Universal Grading Policy:
Level 1 - 20%
- Assignments graded for completion and effort

Level 2 - 30%
- Assignments graded for accuracy and analysis

Level 3 - 50%
- Assignments graded for accuracy and application

How do I get help?!?
- SAP is Monday and Thursday from 1:57-2:25
- Ms. Clarke is available *by request* during lunch or before school.

Expectations:	**Consequences:**
1. This classroom is a safe space. 2. Show respect. 3. Be in class, on time. 4. Be prepared - charged chromebooks, notebook, writing utensil, positive attitude 5. No cellphones or headphones during class, no exceptions.	1. Warning/Reminder 2. Teacher Detention and Parent Phone Call 3. Referral 4. School Detention, ISS, etc.

Attendance Policy: If a student is absent, **THE STUDENT** is responsible for meeting with Ms. Clarke to see what was missed. Since math topics build on one another, it is imperative students meet with the teacher during SAP as soon as possible to make up work. **Students absent during a test or quiz should be prepared to take it immediately upon return.** Leaving class to use the bathroom or see a nurse should be quick and infrequently done to avoid missing course work. Please ask the teacher when you need to do so.

Genesis: Please check Genesis regularly to note your course grade and missing work. **A "M" in Genesis indicates missing work that needs to be made up and averages into the grade as a "0" on the assignment.** Until the work is made up, it may drastically decrease your grade in the course. **A "0" indicates the assignment was not completed and may not be made up (past the cutoff date).** Please keep track of school cut off dates if work is not completed on time.

I have read the course syllabus for Ms. Clarke's class and I understand the expectations and requirements. I understand the rules and policies set forth in the student handbook are also applicable in this course.

Student Signature: Parent Signature:

Date: Date:

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Unit #	Unit Name	Major Topics Discussed
1	**Quadratic Functions**	• Parent Functions and Transformations (Linear, Absolute Value, Quadratic) • Modeling with Linear Functions (rate of change) • Characteristics of Quadratic Functions • Various methods to solve quadratic equations • Complex numbers (honors only) • Solving Linear and Nonlinear Systems
2	**Polynomial Functions**	• Graphing Polynomial Functions • Operations with Polynomials • Factoring Polynomials • Solving Polynomial Equations by Factoring • Transformations of Polynomial Functions • Analyzing Graphs of Polynomial Functions (even and odd functions)
3	**Rational Exponents and Radical Functions**	• N^{th} Roots and Rational Exponents • Adding and Subtracting Radicals and Roots • Simplifying Variable Expressions • Graphing Radical Functions • Solving Radical Equations • Performing Function Operations • Inverse of a Function
4	**Exponential and Logarithmic Functions**	• Exponential Growth and Decay • The Natural Base • Logarithms and Logarithmic Functions • Transformations of Exponential and Logarithmic Functions • Properties of Logarithms • Modeling with Exponential and Logarithmic Functions
5	**Rational Functions**	• Graphing Rational Functions • *Multiplying and Dividing Rational Expressions* • *Adding and Subtracting Rational Expressions* • Solving Rational Equations