School of the Future High School

Honors Algebra 2 Syllabus | 2025 - 2026

Teacher Contact Information

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Google Classroom code: ttx3kwcq

Course Description

In Honors Algebra 2 you will build on the concepts and skills you encountered in Algebra 1 to explore more complex function families, such as polynomial, rational, exponential, and logarithmic. This fluency in functions, together with trigonometric ratios introduced in Geometry, will lead us to the discovery and manipulation of trigonometric functions. Throughout the year an overarching goal is to drive toward three **Enduring Understandings:**

- Algebra is a symbolic language.
- With a growth mindset, embracing challenges and mistakes, anyone can become good at math.
- We can use Algebraic functions to model patterns that we notice.

These three Understandings will help us answer the **Essential Question** of the course:

- How can fluency in the language of Algebra help me understand the world around me?

Unit Sequence

Fall Semester		Spring Semester	
Unit 1	Foundations	Unit 5	The Number System
Unit 2	Functions	Unit 6	Polynomial Functions
Unit 3	Exponential Functions	Unit 7	Trigonometric Functions
Unit 4	Bivariate Analysis		

email Mr. Moore for a more detailed curriculum map.

Materials

Honors Algebra 2 will combine digital and traditional paper platforms. You will need the following materials.
Required every day in class:

- Paper organizer: On any given day you need to be able to refer to handouts and notes from earlier in the unit or year. The best way to do that is to have a 3-ring binder with tab dividers and loose leaf paper. If you have a different system you prefer to use, that is fine.
- Sharpened pencils and erasers.

Optional:

- Pens, highlighters - anything else you use to take notes.
- TI84 Plus or TI84 Plus CE graphing calculator. Other calculators will work, but the procedures are different and will not be taught in class. The classroom has calculators to use during class but they cannot go home.

Classroom Behavior Expectations

Our goal is to create a community of learners, where students take responsibility for their education, are open to discovery, and are respectful of others. All school rules in the SOF Student Handbook apply at all times.

Food or drinks are not allowed in the classroom, other than bottled water.

Academic Learning Outcomes

You will be assessed on your level of mastery of the 9 academic learning outcomes listed below. Of these outcomes, 6 are related to *math content* (concepts and skills), and 3 are related to *math practices*. Refer to this document for the specific concepts and skills covered by each outcome.

Math Content Outcomes

Operations with Numbers I can use and explain properties of real and complex numbers to rewrite expressions, and solve equations using an appropriate sequence of steps.

Bivariate Analysis I can use bivariate analysis to interpret data from real world contexts.

Functions I can identify and compare function families; create and transform functions; and use function notation.

Exponential Functions I can create and interpret exponential functions and use logarithms to solve exponential equations.

Polynomial Functions I can create and interpret polynomial functions and use various methods to find their solutions.

Trigonometric Functions I can create and interpret trigonometric functions and use them to model periodic phenomena.

Math Practice Outcomes

Reasoning I can look for structure and regularity in numbers and make use of it to reason abstractly about problems.

Precision I can use appropriate tools strategically, depending on the problem at hand; and I communicate verbally and symbolically with precision.

Modeling I can persevere in solving problems by applying mathematics to situations arising in everyday life, society, and the workplace.

Work Habits Outcome

Work Habits I can meet deadlines or come to an agreement with my teachers in advance when I need an extension. Work habits will account for 10% of your overall course grade. Work habits will be assessed on each summative assessment as well as from a weekly Work Habits grade. The weekly grade will be based on completing each week's homework on time and by being on task and productive when the teacher makes classroom "sweeps".

Grades

All assessments are scored on a 1 - 4 scale based on a rubric. See the SOF grading policy for conversion to percent grades. Each assignment will have a specific rubric, but in general the meanings of the four scores are:

4 **Integrates Competency** In addition to Score 3 performance, in-depth inferences and applications that go beyond what was explicitly taught.

3 **Demonstrates Competency** Only minor errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught.

2 **Approaches Competency** No major errors or omissions regarding the simpler details and processes but major errors or omissions regarding the more complex ideas and processes.

1 **Not Yet Demonstrating Competency** With help, a partial understanding of some concepts and processes.

Late Work

(see the SOF Competency Based Grading Policy for more detail)

Students have one week to complete assignments not turned in on time. Important notes:

- The one week does NOT include 'in class' checkpoints for which students do not have excused absences.
- The work habits grade for assignments will be 4 if turned in on time; 1 if turned in late; M if not turned in.
- Exceptions apply due to excused absence or approval by the teacher if requested before the deadline.

Communication & Support

Open, honest lines of communication are very important to supporting students. Mr. Moore will contact parents periodically to check in, and to bring concerns to their attention. Parents are encouraged to do the same.

Student / Guardian Receipt & Acknowledgment Of Syllabus

Please have each student, and one guardian, send me an email indicating that they have read the syllabus and understand and agree to the policies and student expectations. Please also include any questions or concerns.