

Honors Algebra 1B

Syllabus

INSTRUCTOR INFORMATION

Please go to your course and access the 'Course Home' for detailed instructor information.

CONTACT INFORMATION

Please feel free to contact me if you have any questions regarding your assignments or course content. Course facilitators respond to emails within 24 hours on weekdays and 48 hours on weekends. If you don't receive a response in that time, please reach out again just in case I did not get your message.

COURSE REQUIREMENTS

All learners must have computer and internet access. Participants in online classes must be comfortable with the basic functions of word-processing software, including GOOGLE DOCS.

COURSE DESCRIPTION

Honors Algebra 1 This is a first year algebra course in which you will learn to reason symbolically. The key content involves writing, solving, and graphing linear and quadratic equations, including systems of two linear equations in two unknowns. Quadratic equations are solved by factoring, completing the square, graphically, or by application of the quadratic formula. The course also includes study of monomial and polynomial expressions, inequalities, exponents, functions, rational expressions, ratio, and proportion. Algebraic skills are applied in a wide variety of problem-solving situations.

COURSE GOALS

1. The student defines functions, describes characteristics of functions, and translates among verbal, numerical, graphical, and symbolic representations of functions.
2. The student interprets the meaning of the symbolic representations of functions and operations on functions to solve meaningful problems.
3. The student uses functions and their properties, tools and technology, to model and solve meaningful problems.
4. The student uses sequences and series as well as tools and technology to represent, analyze, and solve real life problems.
5. The student uses conic sections, their properties, and parametric representations, as well as tools and technology, to model physical situations.
6. The student uses vectors to model physical situations.

STANDARDS MET

This course covers the California state math standards for the second semester of Algebra 1 including these anchor standards:

<https://www.cde.ca.gov/be/st/ss/documents/ccssmathstandarAug2013.pdf>

Specific standards met for each assignment are listed with the assignment in the course itself.

REQUIRED TEXTS

All reading materials are available online, but will also be provided as links through the course website.

Other selected readings for nonfiction available within the course.

COURSE OUTLINE

Below is a summary of the topics of study covered in this course along with the assignments and resources.

		Topic	Assignments and Discussions	Resources
Semester A Review	Block 1	Linear Equation Review	• Block 1: Review Assignment 1 Linear Equations • Block 1: Review Assignment 2 Systems of Linear Equations	• Reminders • Linear Equations
	Block 2	Quadratic Equation Review	• Block 2: Review Assignment 3: Polynomial Review • Block 2: Review Assignment 4: Factoring	• Review of Polynomials • Box Method of Factoring • Grouping Method • Difference of Squares and Cubes • Factoring Practice
Unit 4: Quadratic Equations	Block 3	Forms of Quadratic Equations	• Block 3 Assignment: Quadratic Forms	• • Standard, Factored, Vertex Form • Quadratics • Equations for Quadratics • Key Terms
	Block 4	Quadratic Forms Continued	• Block 4 Discussion Solving Quadratics	• Finding the Vertex • Vertex • Discriminant • Roots • Quadratic Formula
	Block 5	Quadratic Formula and Factored	• Block 5 Assignment: Using the Quadratic Formula • Block 5 Discussion:	• Quadratic Formula • Factored form to find Roots • Factored Form vs.

		Form	Quadratic Formula	Standard Form
	Block 6	Graphing Quadratic Functions	• Block 6 Assignment - Graphing Quadratic Equations • Block 6 Discussion - Quadratic Graphs Application	• Graphing Quadratic Functions • Roots • Parabola Recap
	Block 7	Graphing Quadratic Functions Cont.	• Block 7 Assignment - Applications with Parabolic Functions • Block 7 Discussion - Projectile Motion Application	• Graphing Quadratic Functions • Graphing a Parabola
	Block 8	Quadratics Review / Quiz	• Block 8 Extra Credit Quadratic Review • Block 8 Quiz Quadratics	• Review
	Block 9	Comparing Quadratic Form	• Block 9 Assignment Vertex Form • Block 9 Discussion Comparing Quadratic Forms	• No new content
	Block 10	Solving Quadratic Equations	• Block 10 Assignment All Three Forms of Quadratic Equations • Block 10 Quiz Quadratic Applications • Block 10 Quiz Challenge Questions	• Solving Quadratics by Factoring • Solving Quadratics by Completing the Square • Solving Quadratics Through Quadratic Formula
	Block 11	Simplifying Rational Expressions	• Optional Practice • Block 11 Assignment 1 Simplifying Rational Expressions • Block 11 Assignment 2 Simplifying, Multiplying, and Dividing Rational Expressions	• Simplifying Rational Expressions • Rational Expression? • Multiplying rational expressions • Dividing rational expressions
	Block 12	Adding and Subtracting Rational Expressions	• Block 12 Assignment Adding and Subtracting Rational Expressions • Block 12 Assignment Perimeter, Area, and	• Adding and Subtracting Rational Expressions
Unit 5: Rational Expressions and Equations				

			Volume	
			• Block 12 Quiz Polynomial and Rational Expressions	
	Block 13	Solving Proportions	• Block 13 Assignment Rational Equations Notes and Examples • Block 13 Assignment Solving Rational Equations • Block 13 Assignment Rational Equation Person Puzzle	• Proportion Cross Product Property • Example • Expressions vs. Equations
	Block 14	Exponent Rules	• Block 14 Discussion What Does it Mean to be Rational? • Block 14 Assignment Exponent Rules and Practice • Block 14 Quiz Rational Challenge Questions • FINAL EXAM • Final Project	• Exponent Laws • Exponent Properties

METHODS OF INSTRUCTION

This is an online course, and while there is flexibility in how and when you do assignments, it is best to log in and complete work each day according to the posted pacing schedule. Each BLOCK in a course is worth about 1 week of work during the regular semester. You can find our suggested pacing guide at ileadonline.org under 'CALENDARS'. It is highly recommended that learners follow the pacing schedule posted. Please be sure to check in with your teacher of record (coach/EF/Guide/ES) for guidance with scheduling.

This course uses project based learning to encourage an authentic, developed appreciation of the topics covered. That means that while it may include quizzes and some traditional assessments, the bulk of the coursework focuses on projects that require learners to display their learning in a thorough and creative manner. If you are struggling to complete your work or you need some assistance with an alternate schedule or workload, please contact me as soon as possible. I am more than happy to help support your success in the class!

LEARNER EXPECTATIONS

The learner is expected to participate in the course via email, discussion boards (or other communication) with the facilitator, by reading the assigned readings, submitting assignments and completing and submitting original work.

Learners are expected to check their course and email account every day and complete work on time as assigned with designated dates and time.

Learners are expected to communicate with their instructor and each other in a respectful manner. Please follow the guidelines below:

1. **Make sure identification is clear in all communications.** If you are emailing or messaging your instructor or each other, please be sure they know who you are and what class you're in. That really helps with clear communication.
2. **Review what you wrote and try to interpret it objectively.** When we speak face to face and are misunderstood, we have an on-the-spot opportunity to rephrase our words. In writing, we must strive twice as hard to be understood, as we do not have the benefit of modifying or elaborating in real time. All caps ("I'M SHOUTING") and exclamation points ("Give me a break!!!") can be misinterpreted as intense anger or humor without the appropriate context.
3. **If you wouldn't say it face to face, don't say it online.** When you're working online, you're safe behind a screen, but that's no excuse to be ill-mannered or say things you would never say in public.
4. **Use emoticons when appropriate.** In casual chat room settings, emoticons can help convey feelings that may otherwise get lost in translation, including humor, exasperation, exhaustion and even confusion. These aren't the best choice for formal assignments or projects though.
5. **Respect others' voices and be kind.** We all come from different backgrounds and have our own stories. Assume the best of each other and always be kind in your communication.
6. **Remember, if it's on the internet, it's everywhere.** Don't share personal information about yourself in a public online forum, especially something that could put your safety or security at risk.
7. **Practice Patience:** All your facilitators are doing their best to grade work in a timely manner. We also want to give you meaningful feedback, which takes some time. If you feel like there has been an error or an assignment was missed, please reach out with your name and class and we will do our best to sort it out.

(UTEP Connect)

GRADING

Each assignment is given a specific number of points. The number of points earned by the student is determined and a percentage is calculated. The raw score is recorded in the grade book.

An overall grade in the course will be determined according to your school's grading scale.

SUBMITTING ASSIGNMENTS

All work must be submitted to Brightspace, our learning management system. This is very important for record keeping and compliance. You have access to directions on how to do this in the 'Course Resources' folder of this class and in your Orientation class. If you need any help submitting work please reach out to your instructor and we will make time to ensure that you're able to turn in work to Brightspace.

HONESTY AND PLAGIARISM

Academic Integrity is essential to authentic learning. We want you to get the most out of your courses, and a BIG part of that is learning how to:

- Come up with your own ideas
- Use technology (like AI and other Online resources) to inform your original ideas
- Research in ways that help you develop your thoughts
- Give credit where credit is due
- Explore and use tools (like AI, citation generators, etc.) that help you grow as a person and a learner

Please review [THIS RESOURCE](#) for more information on plagiarism and [this guide for choosing, using and citing resources](#).

Our goal is to support you so that you can learn in a meaningful, authentic way. Any plagiarized work (this includes work generated solely by AI) will be given a zero and referred to your EF/COACH/GUIDE for review. From there we will work with you to support you as best we can.

PRIVACY POLICY

All work submitted is the property of the author and is not available to anyone not in the class. If work is to be submitted or viewed outside of this website, I will obtain permission from the author. [FERPA Info](#)