

Alg 2 Honors Syllabus

Winthrop High School

SY 2025 - 26

Teacher: Ms. Xu

Room: 126

COURSE DESCRIPTION

Algebra 2 builds on what you already know by diving deeper into equations and functions that actually show up in the real world. We'll start with linear systems for problem-solving and move into quadratics, polynomials, and radicals to model things like motion, design, and growth. From there, we'll explore exponential, logarithmic, rational, and trigonometric functions—the kind of math used in finance, science, technology, and even navigation. You'll also work with sequences, series, statistics, and probability, which connect directly to data, trends, and decision-making in everyday life. By the end, you'll not only be sharper at solving problems but also better equipped to understand the patterns, risks, and systems that shape the world around you.

Unit 1 Linear Functions Review

Unit 2 Quadratic Equations & Functions

Unit 3 Polynomial Functions

Unit 4 Powers, Roots & Radicals

Unit 5 Exponential Expressions & Functions

Unit 6 Functions Manipulation

Unit 7 Rational Functions

Unit 8 Trigonometric Functions

Unit 9 Sequences & Series

Unit 10 Statistics & Probability

REQUIRED MATERIALS

- Notebook or binder with sections for notes, classwork, homework, and reviews.
- Ti-84 graphing calculator or online graphing tools.
- Writing utensils such as pencils, pens, and highlighters.
- Straight edge / rulers.
- Chromebook with access to Google Classroom.
- Chromebook charger.

*All required materials are expected to be brought to class EVERY scheduled class period.

CLASSROOM RULES & EXPECTATIONS

- No Cell Phones: Phones must be turned off and put away during class.
- Be Prepared: Bring all necessary materials to every class.
- Be Engaged: Participate actively in class discussions and activities.
- Be Respectful: Show respect to classmates, the teacher, and the learning environment.
- Be Responsible: Complete all assignments on time and make up any missed work promptly.

GRADING & ASSESSMENTS

All grades will be updated in PowerSchool within one week after the due date. Below you will find the weighing of each category.

Classwork & Participation	15%
Homework	15%
Project	15%
Quiz	25%
Test	30%

Tests and quizzes will be given throughout the year. Students can expect about 2 to 3 quizzes and 1 test in each unit. Students will be assessed through traditional quizzes and tests. Assessment dates will be clearly announced in advance both in class and posted on google classroom.

There will be a review prior to most assessments. Being absent the day of the review is NOT an excuse for not taking the assessment. If absent the day of the assessment, students are responsible to schedule time to make up their assessment upon their return; failure to do so will result in a grade of zero. There are NO corrections for quizzes or tests.

ATTENDANCE/PARTICIPATION

Students are expected to come to class every day with the required materials. Students are expected to participate in every dynamic of the class. Some work will be collected for grading and some will be used to help students facilitate their own understanding of the material.

HOMEWORK

Homework is a tool to help all students practice the skills and concepts learned in class independently and informally help students self-access their levels of understanding. Homework is expected to be completed to the best of the student's ability in a timely manner. Printed homework will be provided to students, but can also be found on Google Classroom and completed on a separate paper.

MAKE-UP & LATE ASSIGNMENTS

Assignments and assessments that are missed due to absences from class are expected to be made up. All late assignments are required to be turned in before the unit test for 70% credit. Make-up assessments must be done within one week of the original date. Medical conditions with documentation may be taken into consideration.

PLAGIARISM

Any student who cheats/plagiarizes on an examination, or any other assignment, shall receive a zero, and may not make-up such work. While asking for help or working collaboratively with classmates is encouraged; copying classmates homework is not. Representing work from the web, software application or another person as your own is plagiarism. Students who violate these academic integrity guidelines will be privately admonished, receive a zero for the assignment and have their parent/guardian notified.

Office Hours

I am available after school until 2:25 PM on school days.

Email: yxu@winthrop.k12.ma.us

Phone: 617-846-5505 ext. 7132

Vision of the Graduate

Winthrop High School strives to ensure its graduates are able to become productive citizens of their town, their state, and their nation. To do this, the school in 2011 embraced the following learning objectives, on which students are evaluated quarterly. Taken together, they express a community vision for what we want our graduates to be, know, and do.

WHS Students will become...

Critical Thinkers

- They will use, apply, and evaluate multiple problem-solving strategies in a variety of disciplines.
- They will be able to select, organize, and evaluate new ideas.
- They will demonstrate the ability to actively and critically read.
- They will develop the skills and acquire the knowledge necessary to prepare them for college and career success
- They will be able to set priorities, and manage their time and tasks.

Effective Communicators

- They will communicate ideas and information with clarity and with an understanding of their audience.
- They will integrate and use a variety of communication forms.
- They will listen effectively and respond appropriately to spoken communication.
- They will master standard English-language conventions.

Conscientious Citizens

- They will be aware of, and follow, their community's rules and laws
- They will respect themselves and the community at large.
- They will be aware of and respect social and cultural diversity.
- They will understand, promote, and show the importance of hard work to achieve success.
- They will own their mistakes, and will learn from them.

Creative Achievers

- They will show curiosity and enthusiasm in everything they do.
- They will work and think originally.
- They will appreciate the arts in their many forms.
- They will select, organize, and develop innovative ideas.
- They will build off the ideas of others.