Orange High School
2020-2021 Honors Algebra II Syllabus

Instructor: Ms. Minsun Park
Email: parkmins@orange.k12.nj.us

Dear Students and Parents/Guardians,
Welcome back to Orange High School for the 2019-2020 school year! I am looking forward to a year of fun and learning. Parents/Guardians are encouraged to contact me regarding any concerns or questions regarding your child in my class. You can reach me by email. I will do my best to respond as quickly as possible.
This syllabus should be review together by students and parents/guardians, signed, and returned to school.

Course Description:
This Algebra II course begins with connections back to students' earlier work, efficiently reviewing algebraic and statistical concepts that students have already studied while at the same time moving students forward into new content. In previous years, students have investigated mathematical ideas introduced in Algebra I by extending techniques to solve equations, and students' knowledge and library of functions by functions. There is an increased emphasis in Algebra II on modeling, operations with various expressions, algebraic properties, methods of solving equations, and systems of equations.

Throughout this Algebra II course, students should continue to develop proficiency with the Common Core's eight Standards for Mathematical Practice: Make sense of problems and persevere in solving them; Reason abstractly and quantitatively; Construct viable arguments and critique the reasoning of others; Model with mathematics; Use appropriate tools strategically; Attend to precision; Look for and make use of structure; Look for and express regularity in repeated reasoning.

These practices should become the natural way in which students come to understand and do mathematics. While, depending on the content to be understood or on the problem to be solved, any practice might be seen or applied, some practices may prove more useful than others.

In order to help students succeed in each unit, there are some transition lessons will be provided in the curriculum unit plan at the beginning of quadratics. These lessons will provide opportunities for students to revisit or reinforce their prior knowledge needed for the unit. Each lesson starts with a Task. The purpose of the task is to introduce a new concept, problem solving, or reviewing pre-requisites.

Course Outline:
Unit 1: Polynomial functions and equations
- Quadratic Equations and complex numbers
- Key features of cubic and quartic Polynomial function
- Long division of polynomials/Remainder theorem and solving cubic polynomials

Unit 2: Building New functions
- Simplifying and solving simple rational functions
- Inverse function
- Transformation of the polynomial

- Even and Odd function
- Radical equation
- Equations with more than two unknowns

Unit 3: Sequence and series, exponential function, Logarithmic function
- Arithmetic and geometric sequences and series
- Exponential functions
- Logarithmic functions
- Using Logarithms to solve equations
- Rewrite expressions involving radicals and rational exponents using the properties of exponents

Unit 4: System of Equations and Trigonometry
- Trigonometric ratios (supplement materials)
- Radian to degree and vice versa
- Unit circle and the parent graph of sine, cosine
- Key features of Trigonometric functions (Sine and cosine)
- Sketching trigonometric function (Sine and cosine)

2 weeks review before PARCC

Unit 5: Probability and Statistics
- Probability concepts and the normal distribution
- Conditional probability and independence
- Design and data collection in statistical studies

Final exam!!!!

Required Supplies:
- Textbook: Materials made by district (Will be provided to students as a packet)
- Pencil and eraser
- Notebook (It is required and used exclusively for Honors Algebra II)
- Folder (It is required and used exclusively for Honors Algebra II)

Note: I will perform periodic "supplies checks" which will affect your classwork grade.

School Record Keeping Policy: Parents/Guardians, teachers and administrators will have the right to look at the students' binders and notebooks at any time. Therefore, students must always place their work in their binder or notebook as soon as possible.

Grading Policy:
The grade for each marking period will be determined based on the following percentages according to school policy:
- Tests: 25%
- Authentic assessment: 25%
- Quizzes: 20%
- Class work: 20%
- Homework 10%

Quizzes/Tests:

Students will be given 10-20 minutes quizzes every Friday. Tests will be given after learning 3-4 sections, and will be announced at least one week before. Quizzes and tests will cover the concepts and skills that covered during class. To be successful, you should complete all assigned homework, participate in class, and review these topics prior to the quizzes/tests. If you miss class when a quiz or test is announced, you will still be responsible for taking the quiz/test with the class. Any quizzes/tests that students miss must be made up or it will count as a zero. Please take my advice: the longer you wait to make quizzes and tests up, the less you remember the material. Please do not wait to make up missing quizzes/tests.

Authentic Assessments:

There will be at least 2 authentic assessments every marking period.
1. Performance task
2. Project or Rich tasks

Class Work:

Whether it is individual work or group work, you are expected to actively work on these assignments. Your grade will reflect not only 1) the accuracy of your answers on a daily exit ticket, but also 2) the effort you put in during class. Even a perfect exit ticket will receive a "D" or "F" if I notice you are not using class time effectively. For more information on the school's class work grading policy, check your student handbooks. No late class work will be accepted.

Homework:

Homework will be assigned every day and will be due at the beginning of the next class. Homework is for you to practice concepts and skills that you learned. A partially completed assignment will not receive full credit. And if you just show the answers to the problems, you will not receive any credit. Make sure you show all work. If your homework is 1-day late, you will get 80%. If your homework is late more than 1-day but no later than 1 week, you will get 50%.

Make up Policy:

It is your responsibility to make up all notes, assignments, tests and quizzes when you are absent. If you were absent on a due date, all work is due the day you return; deadline for assignments given on the day you were absent will be discussed. Missed assignments and handouts will be placed in the make-up folder. Missed quizzes and texts are to be made up on your own time: during lunch or after school. Please see me to make the arrangements.

Rules and Expectations for Online Class:

I am expecting the followings from you every single day:
- Find your spot at home for online class learning (Consider volume and work space)
- Set up your learning materials and supplies before the class (pencil, eraser, notebook, homework, and learning attitude)
- Log in your class at least 2 minutes before the class starts
- Turn your camera on and mute your microphone (always raise your hand before you speck)
- Be respectful at all times towards other students and teachers
- Listen actively, pay attention, and do your best with positive thinking and attitude
- Document your daily work (Use a notebook to take notes and make a folder on your computer to collect all work (assignment, quizzes and tests)
- Complete and submit both classwork and homework on Google Classroom

- Routinely check Google Classroom and Reminds for information on courses, assignments, and resources on a daily basis
- Students will adhere to all OHS rules and policies

Extra help:
I will be available daily to answer any questions you may have. My virtual office hours are as follows:
Monday-Friday, 1:15PM-3:15PM

Requirements to Receive Credit:
I will be following the OHS student handbook regarding attendance, absences, and behavior. Please feel free to email me if you have any questions about attendance or lateness.

Honors Algebra II Syllabus Agreement (Student)

I HAVE READ AND UNDERSTAND THE EXPECTATIONS OF THIS CLASS AS OUTLINED IN THE SYLLABUS. I AGREE TO ABIDE BY THE RULES AND PROCEDURES ESTABLISHED BY THE INSTRUCTOR.

Student's Printed Name: _____

Student's Signature: _____ **Date:** _____

Honors Algebra II Syllabus Agreement (Parent/Guardian)

I HAVE READ AND UNDERSTAND THE EXPECTATIONS OF THIS CLASS AS OUTLINED IN THE SYLLABUS. I AGREE TO ABIDE BY THE RULES AND PROCEDURES ESTABLISHED BY THE INSTRUCTOR.

Student's Printed Name: _____

Parent's Printed Name: _____

(please state the relationship with student. Ex. Mom/Dad/Uncle/Aunt/Sister/Brother/Guardian)

Parent's Signature: _____ **Date:** _____

Current Parent Phone Number: _____

Current Parent Email: _____

Preferred method of communication (e-mail/phone/text): _____

This will be graded as homework.

PLEASE RETURN THIS PAGE