Honors Algebra II
2018-2019

Teacher: David Ryan
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Classroom: E-1

Course Descriptions
Honors Algebra II is the graphing and analysis of functions using variables to represent unknown values. Values can then be assigned to the variables, which result in the graph of a function over a specific domain and range. Students will be required to graph various “parent” functions, accurately interpret the functions, be able to translate and transform the functions about the coordinate plane, and accurately perform the arithmetic required to solve for specific values substituted into the functions.

The Honors Algebra II course is designed for the student with exceptional ability and interest in mathematics—as well as an exceptional work ethic. Students will develop concepts, techniques and theory in greater depth than the Algebra I course. Both acceleration and enrichment are integral components of the curriculum. This class also covers Trigonometry and the graphs and analytics of its functions. Some of the topics covered are as follows:

1. Functions and their graphs
2. Polynomial and rational functions
3. Exponential and logarithmic functions
4. Trigonometry
5. Analytical Trigonometry
6. Systems of equations and inequalities
7. Sequences, series, and probability
8. Additional project based Algebra and Trigonometry as time allows

Class Assignments, Assessment, and Student Expectations
Homework is typically assigned during each class period. Students are expected to come to class prepared with homework complete and with all procedural work shown. Homework scores will be collected at the beginning of each class. Late homework is accepted and corrections can be made to improve scores. All homework assignments are posted in StudentVue and ParentVue for students who have been absent. A test or quiz is usually given during the last class of the week. In most cases students are allowed to use a calculator when taking a test. Quizzes are always announced and will cover between one and three sections within the chapters. All procedural work should be shown in a neat and logical format. Student participation is expected of all students and required during note taking time, class discussion, and collaborative assignments. This is a very active class, which will require students to work collaboratively and cooperatively with partners and groups on a daily basis. Retakes are allowed on all tests and quizzes. The goal of this class is to learn the mathematics in a way that connects with each student in a meaningful manner.

Whenever written work is turned in, students are expected to present clearly, neatly, and in a logical format how they arrived at an answer. The emphasis will be on understanding the concepts and processes and be able to explicitly demonstrate their strategies. I expect students to engage in higher
order thinking and to become versatile problem solvers. It is very important to keep up with the work and the participate in class because new concepts are dependent upon a solid comprehension of earlier ones. Students are expected to arrive to class on time and have assignments completed each class period with questions prepared at the beginning of class if necessary.

Discussing math and using mathematical language will be emphasized and expected of the students. Part of my goal as an educator is to encourage students to gain the appropriate skills needed to do so and to feel comfortable to share ideas and converse in a safe classroom environment. Therefore, a respectful environment is provided and encouraged. As a result, all students are expected to be courteous and respectful at all times.

Responsibilities of All Students
- Contribute positively during class discussions, partner, and group activities—including demonstrating active listening techniques
- Show respect for guests, teachers, peers, self, classroom, and classroom materials
- Be sensitive to the differing needs of others
- Take responsibilities seriously as a student
- Engage purposefully during class
- Arrive on time for and attend class
- Come prepared to class (bring your homework, textbook, binder, and other materials to class)
- Complete and turn in assignments on the due date at the beginning of class
- Participate and be fully present in class discussion and activities, and be willing to challenge your mathematical abilities for academic growth
- Take initiative and seek help when needed
- Demonstrate and uphold high standards of integrity and responsibility
- Be courteous and respectful
- Demonstrate good classroom membership, both as a contributor or a spectator
- Abide by the rules and expectations as set forth in the APS LC Student Handbook
- Abide by the rules and procedures regarding absences. It is the responsibility of the student to get missed assignments when absent in a timely fashion.
- Understand plagiarism and the limits of shared work
- Understand the limits of acceptable use of technology

ACADEMIC INTEGRITY
Academic integrity is the moral code or ethical policy of academia and includes cheating and/or plagiarism. If a student is not honest in his or her academic efforts, he or she will receive a zero on the assignment and face further consequences. Below are descriptions of cheating and plagiarism:
- Plagiarism is the unacknowledged use of another’s words or ideas, whether spoken or written, including material cut and pasted from electronic sources.
- Using unauthorized notes or other aids in a test, or copying from or being influenced by another student’s work during a test. This prohibition includes a student using course materials, such as exams, notes, or essays, completed by another student who took the course in a previous year, even if that use was only intended as a study aid.
• Giving unauthorized aid to another student, such as allowing another student to copy or use one’s test, paper, or homework.

**Grading:** Honors Algebra II Tests/Quizzes: 64%, Class Assignments/Homework: 16%, Final Exam: 20%
Grades are not rounded. All students will receive the grade that they earn.

**Grading Scale:** 90-100 = A    80-89 = B    70-79 = C    60-69 = D    <60 = F

**Materials**
- Textbook.
- Calculator (Scientific Calculator (TI-30,31,32,34,35) or a graphing calculator TI-Inspire CX or equivalent).
- Binder with dividers.
- **Graph paper** for notes and assignments.
- Pencils, pens, highlighters, markers and colored pencils.
- A ruler.

**Availability:** I am available to students every day both before and after school. I arrive around 6:45am and leave after the last student. I am also in my room for students during lunch every Tuesday and Thursday. Please encourage your student to utilize this time if they need any math help. My goal is to ensure that all students in any class that I teach are as successful and I will do all that I can to achieve that goal.

Parent Signature ____________________________

Please update contact info, if necessary.

Email: ________________________________

Phone number: ________________________________

Thank you,

Mr. Ryan