

## Algebra II Course Syllabus (2021-2022)

**Ms. Allen**

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**Conference Periods:** A-Day - 3<sup>rd</sup> (12:30 to 2:00 pm)      B-Day - 8<sup>th</sup> period (2:10 to 3:40 pm)

### Course Objectives/Objectives

This course will build upon concepts taught in Algebra I. The course will develop the foundation for functions that are linear, quadratic, cubic, radical, rational, absolute value, exponential, and logarithmic. Continual mathematical emphasis will be placed on problem solving, language and communication, real-world connections, and models and applications. This course will include the use of technology as a tool for solving meaningful problems.

### Topics

- Unit 1 – Parent Functions and Data Regression
- Unit 2 – Transformation of Functions
- Unit 3 – Composition and Inverse of Functions
- Unit 4 – Absolute Value Functions
- Unit 5 – Matrices & Systems of Equations and Inequalities
- Unit 6 – Transformations and Attributes of Quadratic Functions
- Unit 7 – Factoring and Complex Numbers
- Unit 8 – Solving Quadratic Equations and Inequalities
- Unit 9 – Applications of Quadratic Equations and Inequalities
- Unit 10 – Systems of Linear and Quadratic Equations
- Unit 11 – Radicals and Rational Exponents
- Unit 12 – Root Equations and Functions
- Unit 13 – Root Equations
- Unit 14 – Polynomial Functions
- Unit 15 – Inverse Variation and Transformations of Rational Functions
- Unit 16 – Rational Equations and Functions
- Unit 17 – Exponential and Logarithmic Functions
- Unit 18 – Bridge to Precalculus - Trigonometry

### SAT Preparation

One of my goals for this class is to prepare you for the SAT. We will devote 45 minutes to practicing for the SAT each week, and we will complete at least 1 practice problem per day. If you would like access to more practice, please let me know.

### Supplies needed EVERYDAY

- Sharpened pencils
- Binder (at least 1 inch)
- Notebook paper
- 3 dividers (optional)
- Colored pens/pencils (optional)

### **Classroom Routine**

We will use a flipped classroom model. This means direct instruction will occur outside of class time, and practice and reinforcement will occur during class time. Each day will be structured as shown below

Before Class:

1. Watch a 5-10 minute video going through a new lesson
2. Complete a WSQ - (Watch - Summarize - Question)

During Class:

3. Do Now: Before tardy bell, the student should be in desk working on DO NOW (daily SAT question)
4. Review lesson from before class, clear up any misconceptions
5. Guided Practice/Activity: Participate actively during class lecture/lesson
6. Independent/Group Practice: Work diligently or go to assigned group
7. Assessment

### **Student Expectations**

As a student, you will be responsible for paying attention and participating in class discussion and in small groups. Students will be responsible for completing each assignment thoroughly, neatly and in a timely manner. If a student misses any homework or class work assignments, the student will receive a zero for a grade until the assignment has been completed and turned in. Tests and quizzes should be prepared for in advance. Students are responsible for arriving to class on time, ready to learn and prepared for the day's work. The student is expected to comply with the rules of the teacher as well as those stated in the student handbook. Remember to always do your best!

### **Class Expectations- All students must**

1. Be respectful of all teachers, students, and oneself at all times.
2. Be on time to class. Do not stand at the door between classes.
3. Be prepared. Bring all necessary materials to class (pencils, binder with paper, completed homework)
4. Be an active learner. Participate in class activities including classroom discussions, note taking, and cooperative learning.
5. Arrange for make-up work from absences on the day of your return.
6. Take Care of personal issues before class. Use the restroom in-between periods.
7. No iPods, electronic devices, or cell phones. (They will be taken up and sent to the AP's office.)

### **Promptness**

Students are expected to be in their seats at the bell ready to work each day. Tardy students must have a pass and will be expected to follow HSLJ tardy policy as outlined in the student handbook. Tardy students will also not be permitted to make up the daily warm-up points, regardless of whether their tardy was excused

### **Attendance**

If you are absent, it is your responsibility to find out what you have missed by checking with me. If possible, contact me as soon as you know you will be missing class and we can keep you up to date with assignments. We can also set times for any make-up tests or quizzes which are typically given on the day of your return. You can do so by way of email at [shelby.allen@houstonisd.org](mailto:shelby.allen@houstonisd.org) . On the day of your return, please see me before school or before class to get caught up (even if that period does not meet that day). Remember that missing just one block day can put you far behind.

### **Citizenship/Classroom Philosophy/Expectations**

Every student deserves the right to an education free of interference and therefore any actions or behavior causing disruption to that education will not be tolerated. Our class time is very valuable and will not be wasted on behavioral problems. With this in mind, every student while in our classroom must adhere to the general expectations and specific policies below. All will... -

- Be Prepared
- Be Responsible
- Be a Leader and a Team Player
- Show Respect
- Communicate Clearly
- Stay Organized
- Produce Quality Work

### **Class Discipline Procedure**

If a student fails to follow any school or class rules, or has difficulty following class expectations or procedures within the class period, the following disciplinary procedure will be followed:

- Step 1: Verbal Reminder with Written Documentation & Conference with Student
- Step 2: Written Documentation & Conference with student & Parent Notification (via written notice, phone call, voice message, or conference)
- Step 3: Referral to Office

### **Grading Procedures for ALL graded work**

Refer to the Student Handbook

1. Attendance is part of every class work grade (assignments, quizzes, tests, etc). If a student is tardy, their grade for the day's assignment(s) will be affected.
2. Work must be turned in on the due date in order to be eligible to receive full credit

Your grade will be based on the following:

Summative Test/Quizzes_____	35%
Summative Projects_____	25%
Formative learning and practice_____	25%
Home Work_____	15%

### **Re-Testing Policy**

Re-Testing is available for any test. In order to retest, you **MUST**

1. Attend necessary tutorials
2. Complete all relevant homework

The re-test will cover the same objectives, but will not be the original test given.

All retests must be completed within one week from the time the assessment is returned to the student.

### **Late Work Policy**

- 10% deductions each class day for 5 class meetings (or two weeks). Teachers maintain the discretion to extend the submission period.
- Students are encouraged to submit all late work prior to the end of each progress report, and the end of each cycle. Teachers are not advised to accept any late work after the Friday before grades are due.

I am looking forward to a successful and enjoyable year. This will rely on each person doing their part to contribute to a positive learning environment and experience. I expect all of my Algebra students to always conduct themselves in a manner that best represents their positive qualities and contributes to a successful, safe, positive, and enjoyable learning environment. Prepare to work hard as you expand your knowledge further in mathematics.

Timeline is subject to change pending benchmark assessments, half-days, and student prior knowledge retention, etc.