



## ***ALGEBRA II w/STATS***

Teacher Name: Zoe Williams

Teacher email: [zwilliams@madisoncity.k12.al.us](mailto:zwilliams@madisoncity.k12.al.us)

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### ***Course Description:***

In Algebra II with Statistics, students incorporate knowledge and skills from several mathematics content areas, leading to a deeper understanding of fundamental relationships within the discipline and building a solid foundation for further study. In the content area of Algebra and Functions, students explore an expanded range of functions, including polynomial, trigonometric (specifically sine and cosine), logarithmic, reciprocal, radical, and general piecewise functions. Students also solve equations associated with these classes of functions. In the content area of Data Analysis, Statistics, and Probability, students learn how to make inferences about a population from a random sample drawn from the population and how to analyze cause-and-effect by conducting randomized experiments. Students are introduced to the study of matrices in the Number and Quantity content area.

A focus on mathematical modeling and real-world statistical problem-solving is included across the course; see Appendix E for more information on the modeling cycles for mathematics and statistics. It is essential for students to use technology and other mathematical tools such as graphing calculators, online graphing software, and spreadsheets to explore functions, equations, and analyze data.

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### ***Course Objectives:***

Students will have a mastery of the content standards for this course so they are able to succeed in higher-level mathematics. The use of appropriate technology is encouraged for numerical and graphical investigations that enhance analytical comprehension.

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### ***Classroom Expectations:***

You are expected to conduct yourself in a respectful and productive manner. In addition to all the rules and expectations listed in the student handbook, I expect you to have a positive attitude, treat others with respect, practice self-discipline, and demonstrate responsibility. If these conditions are not met, you can expect one-on-one meetings with me, parent/instructor conferencing, and administrative action, if necessary.

#### **Concerning the use of cell phones and other electronic devices:**

Devices should be on silent and placed in the phone chart in the back of the room. Students are allowed to bring charging cables and charge phones while they are in the holder. Earbuds are not allowed to be in your ears or around your neck during class time, they must be kept with your personal belongings during class. At any time the teacher may ask that Smart Watches be placed in the phone holder as well if they are deemed to be a distraction to the student(s).

- *First offense* – Students will be reminded of the rule and asked to comply.
  - *Second offense* – A parent/guardian will be notified.
  - *Third offense* – This is defiance and I will notify an administrator.
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***Grading Policy:***

Major assessments will count 70 percent of your grade. Homework and classwork will account for 30 percent of your grade. Grades will be updated weekly in PowerSchools. Each grading period will consist of nine weeks.

***Make-up Work Policy:***

Make-up tests will **only** be given to a student who has an **excused absence**. **The student must make arrangements with the teacher to take a make-up test. Tests may be taken during Patriot Path with prior arrangement from each teacher.** A student only has two chances (the next two Patriot Paths after the absence) to make up a test. All make-up tests will be administered in the designated classroom on the Patriot Path session roster.

Homework/Classwork: Students who are absent for **excused reasons** will be permitted to make up missed work. **It is the student's responsibility to get their work assignments the day upon return to school and complete the assignments according to a time frame determined by the teacher within two weeks of the date of the last absence.** Grades of zero will be assigned for assignments missed because of unexcused absences.

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***Text and Other  
Required Reading:***

Algebra 2 with Statistics by Big Ideas Learning

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***Materials and  
Supplies Needed:***

Loose Leaf College Ruled Paper  
Pencils (No Pens are accepted)  
Graph Paper

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***Laptops***

Concerning laptop utilization: 1. Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

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***Accommodations***

Requests for accommodations for this course or any school event are welcomed from students and parents.



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<b>Example: 18 – WEEK PLAN*</b>	
<b>Week 1</b>	Chapter 1 - Linear Functions
<b>Week 2</b>	Chapter 2 - Quadratic Functions
<b>Week 3</b>	Chapter 3 - Quadratic Equations and Complex Numbers
<b>Week 4</b>	Chapter 3 - Quadratic Equations and Complex Numbers
<b>Week 5</b>	Chapter 3 - Quadratic Equations and Complex Numbers
<b>Week 6</b>	Chapter 4 - Polynomial Functions
<b>Week 7</b>	Chapter 4 - Polynomial Functions
<b>Week 8</b>	Chapter 5 - Rational Exponents and Radical Functions
<b>Week 9</b>	Chapter 5 - Rational Exponents and Radical Functions
<b>Week 10</b>	Chapter 6 - Exponential and Logarithmic Functions
<b>Week 11</b>	Chapter 6 - Exponential and Logarithmic Functions
<b>Week 12</b>	Chapter 7 - Rational Functions
<b>Week 13</b>	Chapter 7 - Rational Functions
<b>Week 14</b>	Chapter 8 - Periodic Functions and Trigonometry
<b>Week 15</b>	Chapter 9 - Data Analysis and Statistics
<b>Week 16</b>	Chapter 9 - Data Analysis and Statistics
<b>Week 17</b>	Chapter 10 - Matrices
<b>Week 18</b>	Chapter 10 - Matrices

**\*This is a tentative plan and may change at the discretion of the teacher.**

**Please sign below to acknowledge that you have received, read, and understood the syllabus.**

**Student name:** \_\_\_\_\_

Student signature: \_\_\_\_\_

**Parent/guardian name:** \_\_\_\_\_

Parent/guardian signature: \_\_\_\_\_

**Parent/guardian, please provide two ways for me to contact you (email address, phone numbers):**

Parent/guardian Email:

\_\_\_\_\_

Parent/Guardian Phone number:

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