# Algebra 2 Syllabus

## Instructor: Mistye Heath

**Please make sure to read this syllabus thoroughly before beginning the course.**

### Technical Information:

This course does not provide computer instruction. You will only be instructed in the content of the course.

If you have technical difficulty while you are taking the test, please have your counselor/proctor contact the High School Online office at 662.325.1457.

### Textbook Information:

Algebra 2

Glencoe, 2014

ISBN # 9780076639908

In order to be able to study for the quizzes and exams, you will need to do practice problems. The problems will be aligned with the sections of this textbook. It is recommended that you practice the odd problems in each of the sections listed as the answers to those problems are given in the back of the book. This will give you a good idea of what concepts you need extra practice with before taking the exams. Therefore, it is imperative that you obtain a copy of this text prior to beginning the coursework.

### Prerequisites:

It is your responsibility to ensure that you have met any prerequisites required to earn credit for this course. Refunds will not be issued outside of the refund policy because prerequisites were not met prior to enrolling in or taking the course.

### Objective of the Course:

The fundamental purpose of this course is to build on student's prior work with linear, quadratic, and exponential functions, to extend their repertoire of functions to include polynomial, rational, and radical functions. Students will work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms.

**Quizzes:**

You will be assigned quizzes for each of the chapters. At the end of each chapter in the text, you will see a study guide – if you can do the study guide, you are ready for the quiz. These quizzes are designed to test your readiness to proceed to the unit exams. There are 12 quizzes each worth 50 points. If you have done well on the odd problems for each section, you should be well prepared for each of the quizzes.

**Exams:**

This course will have 4 exams. They will cover all mathematical concepts covered in the chapters. The exams will be under the supervision of your course supervisor/proctor. No supplementary materials (notes, textbooks, reference books, etc.) can be used. We reserve the right to require any student to come to the High School Online office to take or redo any test. Academic dishonesty will not be tolerated, and can result in an F in the course.

Mississippi State University's Student Honor Code will be enforced. To view this policy, visit http://www.honorcode.msstate.edu/policy/.

**Grades:**

Your grade will be assigned based on the total number of points that you earn. There are 1000 possible points based on the following categories:

* 12 quizzes each worth 50 points = 600 points

* 4 unit exams each worth 100 points = 400 points

* Total = 1000 points

As quizzes and exams are graded, your grade will be posted in Moodle. While I strive to grade your submission in a very timely fashion, please note that there are certain times when there may be a delay in grading (holidays, weekends, etc).

**Final Grade**

Once you have submitted all assignments for grading and your final average is calculated a completion letter will be mailed to the student and the school. The school will issue the letter grade and add the course to your transcript.

**Communication with your Instructor:**

Outside of discussion board posts, all communication with your instructor should be via email.

**Course Completion and Graduation:**

If you are graduating in the current school year, all coursework must be completed by April 1 in order to ensure that your official documentation is received by your school counselor in time for graduation. It is your responsibility to submit all discussion boards, quizzes, and exams by this deadline.

# 2014 Common Core State Standards for Algebra 2

## Number and Quantity

***The Real Number System (N-RN)*

Extend the properties of exponents to rational exponent - Major

N-RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents

N-RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.

***Quantities (N-Q) **

Reason quantitatively and use units to solve problems- Supporting

N-Q.2 Define appropriate quantities for the purpose of descriptive modeling.

***The Complex Number System (N-CN)*

Perform arithmetic operations with complex numbers- Additional

N-CN.1 Know there is a complex number i such that i squared = −1, and every complex number has the form a + bi with a and b real.

N-CN.2 Use the relation I squared = –1 and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.

Use complex numbers in polynomial identities and equations- Additional

N-CN.7 Solve quadratic equations with real coefficients that have complex solutions.

## Algebra Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions- Major

A-SSE.2 Use the structure of an expression to identify ways to rewrite it. Write expressions in equivalent forms to solve problems Major

A-SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* c. Use the properties of exponents to transform expressions for exponential functions.

A-SSE.4 Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems.

## Arithmetic with Polynomials and Rational Expressions (A-APR

A-APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder on division by x – a is p(a), so p(a) = 0 if and only if (x – a) is a factor of p(x).

A-APR.3 Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Use polynomial identities to solve problems -Additional

A-APR.4 Prove polynomial identities and use them to describe numerical relationships.

Rewrite rational expressions- Supporting

A-APR.6 Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.

## Creating Equations (A-CED) *

Create equations that describe numbers or relationships- Supporting

A-CED.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*

## Reasoning with Equations and Inequalities (A-REI)

Understand solving equations as a process of reasoning and explain the reasoning- Major

A-REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

A-REI.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. Solve equations and inequalities in one variable- Supporting

A-REI.4 Solve quadratic equations in one variable. b. Solve quadratic equations by inspection (e.g., for x 2 = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a ± bi for real numbers a and b.

Solve systems of equations- Additional

A-REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

A-REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line y = -3x and the circle x2 + y2 = 3.

Represent and solve equations and inequalities graphically- Major

A-REI.11 Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*

## Functions Interpreting Functions (F-IF)

Understand the concept of a function and use function notation- Supporting

F-IF.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers Interpret functions that arise in applications in terms of the context- Major

F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*

F-IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.*

Analyze functions using different representations- Supporting

F-IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. e. Graph

exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

F-IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. b. Use the properties of exponents to interpret expressions for exponential functions

F-IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions

## Building Functions (F-BF)

Build a function that models a relationship between two quantities-Major

F-BF.1 Write a function that describes a relationship between two quantities.* a. Determine an explicit expression, a recursive process, or steps for calculation from a context. b. Combine standard function types using arithmetic operations.

F-BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*

Build new functions from existing functions- Additional

F-BF.3 Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

F-BF.4 Find inverse functions. a. Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse

## Linear, Quadratic, and Exponential Models (F-LE) *

Construct and compare linear, quadratic, and exponential models and solve problems Supporting

F-LE.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).*

F-LE.4 For exponential models, express as a logarithm the solution to abct = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.*

Interpret expressions for functions in terms of the situation they model-Additional

F-LE.5 Interpret the parameters in a linear or exponential function in terms of a context

## Trigonometric Functions (F-TF)

Extend the domain of trigonometric functions using the unit circle- Additional

F-TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.

F-TF.2 Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.

Model periodic phenomena with trigonometric functions- Additional

F-TF.5 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.*

Prove and apply trigonometric identities-Additional

F-TF.8 Prove the Pythagorean identity sin (Θ)2 + cos (Θ)2 = 1 and use it to find sin (Θ), cos (Θ), or tan (Θ), given sin (Θ), cos (Θ), or tan (Θ) and the quadrant of the angle.

## Geometry Expressing Geometric Properties with Equations (G-GPE)

Translate between the geometric description and the equation for a conic section- Additional

G-GPE.2 Derive the equation of a parabola given a focus and directrix.

## Statistics and Probability* Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on a single count or measurement variable- Additional

S-ID.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.*

Summarize, represent, and interpret data on two categorical and quantitative variables- Supporting

S-ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.* a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models

## Making Inferences and Justifying Conclusions (S-IC)

Understand and evaluate random processes underlying statistical experiments-Supporting

S-IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.*

S-IC.2 Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?*

Make inferences and justify conclusions from sample surveys, experiments, and observational studies- Major

S-IC.3 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.*

S-IC.4 Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.*

S-IC.5 Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.*

S-IC.6 Evaluate reports based on data.*

## Conditional Probability and the Rules of Probability (S-CP)

Understand independence and conditional probability and use them to interpret data- Additional

S-CP.1 Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (“or,” “and,” “not”).*

S-CP.2 Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.*

S-CP.3 Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.*

S-CP.4 Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities.

S-CP.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.

Use the rules of probability to compute probabilities of compound events in a uniform probability model- Additional

S-CP.6 Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.*

S-CP.7 Apply the Addition Rule, P(A or B) = P(A) + P(B) – P(A and B), and interpret the answer in terms of the model.*

In this course you will utilize the mathematical practices on quizzes and exams to demonstrate your readiness for the next level of mathematics.

**Standards for Mathematical Practice**

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education.

**1. Make sense of problems and persevere in solving them.**

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and valuate their progress and change course if necessary. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

**2. Reason abstractly and quantitatively.**

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

**3. Construct viable arguments and critique the reasoning of others.**

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is.

**4. Model with mathematics.**

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts

and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

**5. Use appropriate tools strategically.**
Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

**6. Attend to precision.**
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context

**7. Look for and make use of structure.**
Mathematically proficient students look closely to discern a pattern or structure. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects

**8. Look for and express regularity in repeated reasoning.**
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

## Course Requirements

| **Unit 1** | | | |
|---|---|---|---|
| | **Sections** | **Topics** | **CCSS content** |
| | 1.1 | Expressions and Formulas | A.SSE.1 |
| | 1.2 | Properties of Real Numbers | A.SSE.2<br>A.SSE.3 |
| | 1.3 | Solving Equations | A.CED.1 |
| | 1.4 | Absolute Value Equations | ASSE.<br>A.CED.1 |
| | 1.5 | Solving Inequalities | A.CED.1 |
| | 1.6 | Compound and Absolute Value Inequalities | A.CED.1 |
| | | **QUIZ #1** | Math practices:1,2,4 &6 |
| | 2.1 | Relations and Functions | F.IF.4<br>F.IF.5 |
| | 2.2 | Linear Functions | F.IF.4<br>F.IF.9 |
| | 2.3 | Rate of Change and Slope | F.IF.4, F.LE.2<br>F.IF.6 |
| | 2.4 | Writing Linear Equations | A.SSE.3<br>A.CED.2 |
| | 2.7 | Parent Functions | F.BF.2, F.BR.3<br>F.IF.4, F.TF.8 |
| | 2.8 | Graphing Linear and Absolute Value Inequalities | A.CED.3, N.Q.2 |
| | | **QUIZ #2** | Math Practices 1,4,5, &6 |
| | 3.1 | Systems of Equations | A.CED.3<br>A.REI.11 |
| | 3.2 | Systems of Inequalities by Graphing | A.CED.3 |
| | 3.3 | Optimization with Linear Programming | A.CED.3 |
| | 3.4 | Systems of Equations with 3 Variables | A.CED.3 |
| | 3.5 | Operations with Matrices | A.CED.3, A.ARP.4 |
| | 3.6 | Multiplying Matrices | A.CED.3, A.REI.6 |
| | 3.7 | Cramer's Rule | A.CED.3,A.REI.7 |
| | 3.8 | Inverse Matrices | A.CED.3, A.REI.6 |
| | | **QUIZ #3** | Math Practices: 1,4 6, & 7 |
| | | **EXAM #1** | |

| **Unit 2** | | | |
|---|---|---|---|
| | **Sections** | **Topics** | **CCSS content** |
| | 4.1 | Graphing Quadratic Functions | A.SSE.3<br>F.IF.9, F.IF.4 |
| | 4.2 | Solving Quadratic Equations By Graphing | A.CED.2<br>F.IF.4 |
| | 4.3 | Solve Quad. Equations by Factoring | A.SSE.2, A.SSE.3<br>F.IF.8.a |
| | 4.4 | Complex Numbers | N.CN.1<br>N.CN.2 |
| | 4.5 | Completing the Square | N.CN.7<br>N.Q.2 |
| | 4.6 | Discriminant | N.CN.7, N.Q.2 |
| | 4.7 | Transformations of graphs | F.IF.4, F.BF.2,<br>F.BF.3 |
| | | **QUIZ #4** | Math Practices: 2, 4, 5, 6, & 8 |
| | 5.1 | Operations with Polynomials | A.APR.1, A.REI.6 |
| | 5.2 | Dividing Polynomials | A.APR.6 |
| | 5.3 | Polynomial Functions | F.IF.4, F.IF.7.c |
| | 5.4 | Analyzing Graphs | F.IF.4, F.IF.7.c,<br>F.LE.2 |
| | 5.5 | Solving Polynomial Equations | A.CED.1, A.REI.11 |
| | 5.6 | The Remainder Theorem | A.APR.2, F.IF.7.c |
| | 5.7 | Roots and Zeros | N.RN.2, A.APR.3 |
| | | **QUIZ #5** | Math Practices:1, 3,4 ,6 &7 |
| | 6.1 | Operations on Functions | F.IF.9, F.BF.1.b<br>F.TF.8 |
| | 6.2 | Inverse Functions and Relations | F.IF.4, F.BF.4.a |
| | 6.3 | Square Root Functions | F.IF.7.b, F.BF.3 |
| | 6.5 | Operations with Radical Expressions | A.SSE.2 |
| | 6.6 | Rational Exponents | A.REI.1, A.REI.2 |
| | 6.7 | Solving Radical Equations | A.REI.2, A.REI.11 |
| | | **QUIZ #6** | Math Practices: 1,2,4,5,& 8 |
| | | **EXAM #2** | |

| **Unit 3** | | | |
|---|---|---|---|
| | **Sections** | **Topics** | **CCSS content** |
| | 7.1 | Graphing Exponential Functions | F.IF.7.e, F.IF.8.b |
| | 7.2 | Solving Exponential Equations And Inequalities | A.CED.1<br>F.LE.4 |
| | 7.3 | Logarithms and Logarithmic Functions | F.IF.7.e<br>F.BF.3 |
| | 7.4 | Solving Logarithmic Equations | A.SSE.2<br>A.CED.1 |
| | 7.5 | Properties of Logarithms | A.CED.1 |
| | 7.6 | Common Logarithms | A.CED.1, A.REI.11 |
| | 7.7 | Base e and Natural Logs | A.SSE.3 |
| | 7.8 | Using Exponential and Log Functions | F.IF.8.b, F.LE.4,<br>F.BF.1.b |
| | | **QUIZ #7** | Math Practices, 2, 4,5,6,& 7 |
| | 8.1 | Multiplying and Dividing Rational Expressions | A.APR.4,<br>A.APR.7 |
| | 8.2 | Adding and Subtracting Rational Expressions | A.APR.4<br>A.APR.7 |
| | 8.3 | Graphing Reciprocal Functions | A.CED.2, F.BF.3 |
| | 8.4 | Graphing Rational Functions | A.CED.2, F.IF.9 |
| | 8.5 | Variation Functions | A.CED.2 |
| | 8.6 | Solving Rational Equations and Inequalities | A.CED.1, A.REI.2<br>A.REI.7,A.REI.11 |
| | | **QUIZ #8** | Math Practices: 1,3,4 5,7, & 8 |
| | 9.1 | Midpoint and Distance Formulas | A.CED.4 |
| | 9.2 | Parabolas | A.APR.4 |
| | 9.3 | Circles | A.SSE.1.b, A.CED.4 |
| | 9.4 | Ellipses | A.SSE.1.b, A.CED.2 |
| | 9.6 | Identifying Conic Sections | A.SSE.1.b, F.IF.9 |
| | 9.7 | Solving Linear-Nonlinear Systems | A.REI.1, A.REI.6,<br>A.REI.11 |
| | | **QUIZ #9** | Math Practices: 2, 4,5,6 &8 |
| | | **EXAM #3** | |
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| **Unit 4** | | | |
|---|---|---|---|
| | **Sections** | **Topics** | **CCSS content** |
| | 10.1 | Sequences as Functions | F.IF.4, F.TF.8 |
| | 10.2 | Arithmetic Sequences and Series | A.CED.4, A.REI.6 |
| | 10.3 | Geometric Sequences and Series | A.SSE.3, A.SSE.4 |
| | 10.6 | The Binomial Theorem | A.APR.4,<br>A.APR.5 |
| | 10.7 | Proof by Mathematical Induction | A.APR.4<br>A.APR.5 |
| | | **QUIZ #10** | Math Practices: 1, 3,4,7 & 8 |
| | 11.1 | Designing a Study | S.IC.3, S.IC.5,<br>S.CP.1, S.CP.4 |
| | 11.2 | Distributions of Data | S.IC.4, S.IC.6<br>S.CP.3, S.CP.4 |
| | 11.3 | Probability Distributions | S.MD.7, S.CP.5<br>S.CP.6, S.CP.2 |
| | 11.4 | The Binomial Distribution | S.MD.6, S.MD.7,<br>S.CP.3, S.CP.5 |
| | 11.5 | The Normal Distribution | S.ID.4, S.CP.3,<br>S.CP.4, S.CP.1 |
| | | **QUIZ #11** | Math Practices: 2, 4,5 & 7 |
| | 12.1 | Trigonometric Functions is Right Triangles | F.TF.1 |
| | 12.2 | Angles and Angle Measures | F.TF.1 |
| | 12.6 | Circular and Periodic Functions | F.TF.1, F.TF.2 |
| | 12.7 | Graphing Trigonometric Functions | F.IF.7.a, F.TF.5<br>F.BF.3 |
| | 12.8 | Translations of Trigonometric Functions | F.IF.7.e, F.BF.3 |
| | 12.9 | Inverse Trigonometric Functions | A.CED.2, A.APR.4 |
| | | **QUIZ #12** | Math Practices: 1,2,4,5,6 & 7 |
| | | **EXAM #4** | |
| | | | |
| | | | |