

**CURRICULUM MAP
MATH II**

FIRST QUARTER	SECOND QUARTER
<p>Data Analysis and Probability Standard</p> <p>2. Represent and analyze bivariate data using appropriate graphical displays [scatter plots, parallel box-and-whisker plots, histograms with more than one set of data. Tables, charts. Spreadsheets] with and without technology.</p> <p>3. Display bivariate data where at least one variable is categorical.</p> <p>4. Identify outliers on a data display; e.g., use the interquartile range to identify outliers on a box- and-whisker plot.</p> <p>6. Interpret the relationship between two variables using multiple graphical displays and statistical measures; e.g scatter plots, parallel box-and -whisker plots, and measure of center and spread.</p> <p>1. Describe measures of center and the range verbally, graphically and algebraically.</p> <p>6. Interpret the relationship between two variables using multiple graphical displays and statistical measures; e.g scatter plots, parallel box-and -whisker plots, and measure of center and spread.</p> <p>5. Provide examples and explain how a statistic may or may not be an attribute of the entire population; e.g intentional or unintentional bias may be present.</p> <p>7. Model problems dealing with uncertainty with area models [geometric probability]</p> <p>8. Differentiate and explain the relationships between the probability of an event and the odds of an event and compute one given the other.</p> <p>Measurement Standard</p> <p>5. Determine the measures of central angles and their associated major and minor arcs.</p> <p>1. Explain how a small error in measurement may lead to a large error in calculated results.</p> <p>2. Calculate relative error.</p> <p>3. Explain the difference between absolute error and relative error in measurement.</p> <p>4. Give examples of how the same absolute error can be problematic in one situation but not in another; e.g. compare “accurate to the nearest foot” when measuring the height of a person versus when measuring the height of a mountain.</p> <p>Number , Number Sense and Operations Standard</p> <p>3. Use factorial notation and computations to represent and solve problem situations involving arrangements.</p> <p style="text-align: center;">Chapter 1 and 4</p>	<p>Number , Number Sense and Operations Standard</p> <p>1. Connect physical, verbal and symbolic representations of irrational numbers; e.g. construct square root of 2 as a hypotenuse or on a number line.</p> <p>2. Explain the meaning the meaning of the nth root.</p> <p>4. Approximate the nth root of a given number greater than zero between consecutive integers when n is an integer; e.g. the 4th root of 50 is between 2 and 3</p> <p>Geometry and Spatial Sense Standard</p> <p>1. Formally define and explain key aspects of geometric figures, including:</p> <p>A. Interior and exterior angles of polygons.</p> <p>B. Segments related to triangles {median, altitude, midsegment}</p> <p>C. points of concurrency related to triangles [centroid, incenter, orthocenter, and circumferene].</p> <p>2. Recognize and explain the necessity for certain terms to remain undefined, such as point line and plane.</p> <p>4. Construct right triangles, equilateral, triangles, parallelograms, trapezoids, rectangles, rhombuses, squares, and kites, using compass and straightedge or dynamic geometry software.</p> <p>5. Construct congruent or similar figures using tools, such as compass, straightedge, and protractor or dynamic geometry software.</p> <p>3. Make, test and establish the validity of conjectures about geometric properties and relationships using counterexample, inductive and deductive reasoning, and paragraph and two column proof, including:</p> <p>A. prove the Pythagorean theorem</p> <p>B. prove theorems involving triangles similarity and congruence.</p> <p>C. prove theorems involving properties of lines, angles, triangles, and quadrilaterals</p> <p>D. test a conjecture using basic constructions made with a compass and straightedge or technology.</p> <p>Patterns, Functions, and Algebra Standard</p> <p>9. Recognize and explain that the slopes of parallel lines are equal and the slope of perpendicular lines are negative reciprocals.</p>

**CURRICULUM MAP
MATH II**

THIRD QUARTER	FOURTH QUARTER
<p>Geometry and Spatial Sense Standard</p> <p>10. Solve problems involving chord, radii, and arcs within the same circle. D. Circles [radius, diameter, chord, circumference, major arc, minor arc, sector, segment, inscribed angle].</p> <p>7. Perform reflections and rotations using compass and straightedge constructions and dynamic geometry software.</p> <p>8. Derive coordinate rules for translations, reflections, and rotations of geometric figures in the coordinate plane.</p> <p>9. Show and describe the results of combinations of translations, reflections and rotations, (compositions,); e.g. perform compositions and specify the result of a composition as the outcome of a single motion, when applicable.</p> <p>6. Identify the reflection and rotation symmetries of two and three dimensional figures.</p>	<p>Patterns, Functions, and Algebra Standard</p> <p>1. Define a function formally and with $f(x)$ notation.</p> <p>1. Describe and compare characteristics of the following families of functions; square root, cubic, absolute value, and basic trigonometric functions; e.g. general shape, possible number of roots domain and range.</p> <p>1. Solve equations and formulas for a specific variable; e.g. express the base of a triangle in terms of the area and height.</p> <p>2. Use algebraic representations and functions to describe and generalize geometric properties and relationships.</p> <p>3. Solve simple linear and nonlinear equations and inequalities having square roots as coefficients and solutions.</p> <p>1. Solve equations and inequalities having rational expressions as coefficients and solutions.</p> <p>10. Solve real world problems that can be modeled using linear, quadratic, exponential, or square root functions.</p> <p>8. Graph the quadratic relationship that defines circles.</p> <p>10. Solve real world problems that can be modeled using linear, quadratic, exponential, or square root functions.</p> <p>1. Solve systems of linear inequalities.</p> <p>11. Solve real world problems that can be modeled, using systems of linear equations and inequalities.</p> <p>12. Describe the relationship between the slope of a line through the origin and the tangent function of the angle created by the line and the positive x-axis.</p>