

CCS COURSE MAP

SUBJECT: TRIGONOMETRY

GRADE LEVEL 11th – 12th GRADE
COURSE LENGTH SEMESTER

REVIEWED 2018-2019

Student Goals:					
		I	To understand and apply concepts of trigonometry.		
		II	To build a strong foundation of mathematical skills and concepts.		
		III	To sharpen students' critical thinking skills and introduce them to the usefulness and applicability of mathematics beyond the classroom.		
Student Outcomes:					
		I	The students will be able to understand more complex mathematical concepts, such as trigonometric functions and identities, and apply trigonometric functions to solve a variety of problems.		
		II	The students will be able to obtain knowledge of basic concepts of Trigonometry, including angle relationships, solving right triangles, radian measure, the unit circle, and fundamental trigonometric identities.		
UNIT/ WEEKS	STANDARD	OBJECTIVES	ACTIVITIES/ASSESSMENT	RESOURCES	BIBLICAL INTEGRATION
1. Trigonometric Functions 3-4 weeks	9.3.3.2 9.3.3.4 9.3.3.6	Students will understand and apply angle terminology. Students will be able to use angle relationships to find angle measures. Students will be able to find trigonometric functions given points on a coordinate plane.	Classroom discussions/lecture/demonstration by teacher and students. In-class work. Homework Quiz/test	(Lial Hornsby Schneider) Pearson Trigonometry © 2009 Scientific Calculator	Students will be able to use mathematics as a tool to explore and manage God's creation and to glorify God, especially for His created order in mathematics.

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<p>2. Acute Angles and Right Triangles 3-4 weeks</p>	<p>9.3.3.5 9.3.4.1 9.3.4.2 9.3.4.3</p>	<p>Students will be able to find trigonometric functions of acute and non-acute angles.</p> <p>Students will be able to find trigonometric function values using a calculator.</p> <p>Students will be able to solve right triangles.</p> <p>Students will be able to apply trigonometric functions to solve real world problems.</p>	<p>Classroom discussions/lecture/demonstration by teacher and students.</p> <p>In-class work.</p> <p>Homework</p> <p>Quiz/test</p>	<p>(Lial Hornsby Schneider) Pearson Trigonometry © 2009</p> <p>Scientific Calculator</p>	<p>Students will be able to use mathematics as a tool to explore and manage God’s creation and to glorify God, especially for His created order in mathematics.</p>
<p>3. Radian Measure and Circular Functions 3 weeks</p>	<p>9.3.3.8 9.3.4.2 9.3.4.3</p>	<p>Students will be able to convert between degree and radian measure.</p> <p>Students will be able to apply radian measure.</p> <p>Students will be able to use the unit circle and circular functions.</p> <p>Students will be able to find linear and angular speed.</p>	<p>Classroom discussions/lecture/demonstration by teacher and students.</p> <p>In-class work.</p> <p>Homework</p> <p>Quiz/test</p>	<p>(Lial Hornsby Schneider) Pearson Trigonometry © 2009</p> <p>Scientific Calculator</p>	<p>Students will be able to use mathematics as a tool to explore and manage God’s creation and to glorify God, especially for His created order in mathematics.</p>

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<p>4. Graphs of the Circular Functions 3 weeks</p>	<p>9.2.1.4</p>	<p>Students will be able to graph Sine, Cosine, Tangent, Cotangent, Secant and Cosecant functions and their translations.</p>	<p>Classroom discussions/lecture/demonstration by teacher and students.</p> <p>In-class work.</p> <p>Homework</p> <p>Quiz/test</p>	<p>(Lial Hornsby Schneider) Pearson Trigonometry © 2009</p> <p>Scientific Calculator</p>	<p>Students will be able to use mathematics as a tool to explore and manage God's creation and to glorify God, especially for His created order in mathematics.</p>
<p>5. Trigonometric Identities 3-4 weeks</p>	<p>9.3.2.1</p>	<p>Students will be able to verify trigonometric identities using Fundamental Identities, Sum and Difference Identities for Cosine, Sum and Difference Identities for Sine and Tangent, Double-Angle Identities and Half-Angle Identities.</p>	<p>Classroom discussions/lecture/demonstration by teacher and students.</p> <p>In-class work.</p> <p>Homework</p> <p>Quiz/test</p>	<p>(Lial Hornsby Schneider) Pearson Trigonometry © 2009</p> <p>Scientific Calculator</p>	<p>Students will be able to use mathematics as a tool to explore and manage God's creation and to glorify God, especially for His created order in mathematics.</p>

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