

<b>DEPARTMENT: MATHEMATICS</b>	<b>COURSE TITLE: GEOMETRY</b> <b>COURSE NUMBER: 316</b>
<b>GRADE(S): 9-12</b>	<b>PRE-REQUISITES (IF ANY): ALGEBRA I</b>

<b>UNIT</b>	<b>LENGTH IN WEEKS</b>	<b>CONTENT</b>	<b>SKILLS</b>	<b>METHODS OF ASSESSMENT</b>	<b>FRAMEWORK STRAND(S) &amp; STANDARD(S)</b>
Introduction	1-2	<ul style="list-style-type: none"> <li>Essential vocabulary</li> <li>Introduction to technology</li> <li>Naming geometric figures</li> </ul>	<ul style="list-style-type: none"> <li>Measure using a ruler and protractor</li> <li>Use a compass to draw a circle</li> <li>Define vocabulary in own words and draw representations</li> <li>Use correct geometric notations</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1
Constructions	1	<ul style="list-style-type: none"> <li>Angle bisectors</li> <li>Perpendicular lines</li> <li>Parallel lines</li> <li>Copying a given figure</li> </ul>	<ul style="list-style-type: none"> <li>Use geometric tools to construct a given figure</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1,4
Congruence	2-3	<ul style="list-style-type: none"> <li>Concept</li> <li>Triangle congruence theorems (SSS,ASA,SAS,HL,AAS)</li> <li>CPCTC</li> </ul>	<ul style="list-style-type: none"> <li>Determine whether figures are congruent</li> <li>List corresponding parts of congruent figures</li> <li>Prove two triangles are congruent</li> <li>Find missing parts</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	2, 4, 6
Parallelism/ Perpendicularity	1.5	<ul style="list-style-type: none"> <li>Concepts</li> <li>Symbols</li> <li>Parallel postulate</li> <li>CA, AIA, AEA theorems</li> </ul>	<ul style="list-style-type: none"> <li>Determine whether lines are parallel</li> <li>Find slopes to see if lines are parallel, perpendicular or neither</li> <li>Find missing angles</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	2, 5
Quadrilaterals	3	<ul style="list-style-type: none"> <li>Classifications, properties</li> </ul>	<ul style="list-style-type: none"> <li>Define, identify, classify and draw</li> <li>Use properties to find missing parts</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1, 2, 6

Polygon investigations	2-3	<ul style="list-style-type: none"> <li>Sum of interior and exterior angles</li> <li>Special characteristics of regular polygons, names of common polygons</li> <li>Convex vs. concave</li> <li>Number of diagonals</li> </ul>	<ul style="list-style-type: none"> <li>Recognize patterns</li> <li>Determine formulas</li> <li>Use properties to find missing parts</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1, 7, 17
Perimeter, area, volume	2-3	<ul style="list-style-type: none"> <li>Underlying concept of unit squares, cubes</li> <li>Derivation of formulas</li> </ul>	<ul style="list-style-type: none"> <li>Define and calculate perimeter, area, volume</li> <li>Illustrate concepts with manipulatives</li> <li>Solve real-world problems</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	16, 17, 19, 20,21,23
Similarity	2-3	<ul style="list-style-type: none"> <li>Ratio and proportion</li> <li>Corresponding parts</li> <li>Scale factors</li> <li>Triangle similarity theorems (SSS, ASA, AA)</li> <li>Ratios of perimeters, areas, volumes for similar figures</li> </ul>	<ul style="list-style-type: none"> <li>Determine whether figures are similar</li> <li>List corresponding parts of similar figures</li> <li>Calculate scale factors</li> <li>Prove two triangles are similar</li> <li>Find missing parts</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1, 2, 4, 16, 21
Right triangle relationships	2-3	<ul style="list-style-type: none"> <li>Pythagorean theorem</li> <li>Trig ratios</li> <li>30-60-90 and 45-45-90 triangles;</li> </ul>	<ul style="list-style-type: none"> <li>Find missing parts</li> <li>Solve real-world problems</li> </ul>	<ul style="list-style-type: none"> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1, 2, 7, 8, 9, 10
Transformations	1.5	<ul style="list-style-type: none"> <li>Translations, reflections, rotations, dilations</li> </ul>	<ul style="list-style-type: none"> <li>Transform plane figures using coordinate geometry and technology</li> </ul>	<ul style="list-style-type: none"> <li>Create a tessellation</li> <li>Test &amp; Quiz</li> <li>Homework</li> <li>Portfolio</li> <li>Classwork</li> <li>Notebook check</li> <li>Project</li> <li>Essay</li> </ul>	1, 15