

**Geometry**  
**On-line Course Syllabus**  
**Mr. Anthony Padrnos**  
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**Office Hours:**

M-TH: 7:00am - 7:40am

M, T, TH: 2:35pm - 3:00pm

**Materials Required:**

- Calculator
- Protractor, Compass, and 12 inch Ruler

**Course Overview:**

This course is in Euclidean Geometry and will cover a variety of topics in this field. Topics in this course will include, but are not limited to geometric reasoning, proofs, two dimensional properties of figures, solids and their properties, similar figures, Pythagorean Theorem, trigonometry, and geometric compass constructions.

**District Standard:**

Understands and applies basic and advanced properties of the concepts of geometry

- Know and use properties of two- and three-dimensional figures to solve real-world and mathematical problems (finding area, perimeter, volume, surface area; apply direct or indirect methods of measurement; Pythagorean Theorem and its converse; properties of 45-45-90 and 30-60-90 triangles).
- Classify figures in terms of congruence and similarity, and informally apply these relationships using proportional reasoning where appropriate
- Apply geometric properties and relationships in solving real-world and mathematical problems (including facts about parallel line cut by a transversal)
- Use logical reasoning to make observations about and to verify properties of and relationships among figures (understand the role of axioms, definitions and theorems, including basic theorems of triangles and parallel and perpendicular lines)
- Apply the basic concepts of right triangle trigonometry (sine, cosine, tangent) to solve real-world and mathematical problems, including the study of special right triangles and non-right triangles. (Know that trigonometric functions can be extended to periodic functions on the real line.)
- Use coordinate geometry to represent and examine geometric concepts to solve real world and mathematical problems (distance between two points, midpoint of line segment, slope of line, slopes of parallel and perpendicular lines, etc.)
- Use numeric, graphic, and symbolic representations of transformations to solve real-world and mathematical problems (reflections, translations, change of scale in one, two or three dimensions, etc.)
- Draw and construct representations of two- and three-dimensional geometric objects using a variety of tools
- Use models and visualization to understand and represent three-dimensional objects and their cross sections from different perspectives
- Use geometric models to gain insights into, and answer questions in, other areas of mathematics

- Know and use theorems about circles to justify geometrical facts and solve real-world and mathematical problems (tangent line and radii, inscribed and central angles, central angles and arc length)

**Grades:**

Grades will be based on the following: 10% Class Work, 25% Assignments and Quizzes, 65% Tests and Projects. Grades can be checked by logging into infinite campus from the district website [www.hopkinsschools.org](http://www.hopkinsschools.org) or from the course Moodle page.

**Grading Scale is as follows:**

A	93%	B	83%	C	73%	D	63%
A-	90%	B-	80%	C-	70%	D-	60%
B+	87%	C+	77%	D+	67%		

**Class Work**

Class work will consist of class participation, warm-up exercises, investigations, and closure exercises.

**Assignments and Quizzes**

Each daily assignment is worth 5 points. Students can expect to have a quiz at least once per unit.

**Test**

Tests will occur at the end of each unit and are worth 40 points. There will be a final at the end of each term worth 100 points. There is one large project each term that is worth 40 points. Tests are expected to be taken on the day scheduled and will only be available for students to take on the day scheduled.

**Make-up Work Policy**

Assignments, tests, and quizzes are expected to be completed by the time they are due. Extensions will only be granted under certain rare circumstances and a plan will be directly worked out between the teacher and that student.

*Pure mathematics is, in its way, the poetry of logical ideas. ~Albert Einstein*