



2021-2022  
Geometry  
Syllabus/Curriculum  
Ms. Rucker  
C314

**Hazelwood East High School**  
**Geometry**  
**2021-2022 School Year**  
Ms. Rucker

**Contact Information:**

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**Room:** C314

**Course Description:**

In Geometry, students use the tools of geometry to conduct investigations, compare ideas, and make conjectures about geometric relationships. Through the investigative process, students discover important principles of geometry and develop conceptual understanding. They prepare for formal proof by beginning with paragraph, flowchart, and algebraic proofs. Students experience an active, hands-on approach of investigation and exploration. Algebra is incorporated throughout this course. Technology is integrated throughout this using graphing calculators in algebra applications and The Geometer's Sketchpad in geometry investigations. Geometric concepts include geometric design, reasoning, construction, triangle, polygon, and circle properties, transformations, area, volume, similarity, and trigonometry.

**Course Rationale:**

Geometry is a critical component of a mathematics education because students are required to relate concepts from Algebra to geometric phenomena. This course requires students to focus on logical proof and critical thinking when solving problems or evaluating arguments. Postsecondary institutions require students to take a geometry course in high school because this subject provides the necessary mathematical tools for complex reasoning and solving problems in the sciences, technology, engineering, and many skilled trades and professions.

<i>Grading Category</i>	<i>Weight</i>
Tests:	70%
Common Summative Assessments (CSA) / Tests Common Formative Assessments (CFA) / Quizzes	
Classwork	30%
Classwork, Homework, Participation, Projects, Activities	

# Pacing Guide Semester 1

## Unit 1-Preparing for Geometry

ALG REVIEW

ALG REVIEW

Lesson 0.4

Lesson 0.5

## Unit 2-Tools of Geometry

Lesson 1.1: Points, Lines, and Planes

Lesson 1.2: Linear Measure

Lesson 1.3: Distance and Midpoints

Lesson 1.4: Angle Measure

Lesson 1.5: Angle Relationships

## Unit 3-Parallel and Perpendicular Lines

Lesson 2.7: Proving Segment Relationships

Lesson 2.8: Proving Angle Relationships

Lesson 3.1: Parallel Lines and Transversals

Lesson 3.2: Angles and Parallel Lines

Lesson 3.5: Proving Lines Parallel

Lesson 4.7: Congruence Transformations

Lesson 9.1: Reflections

Lesson 9.2: Translations

Lesson 9.3: Rotations

Lesson 9.4: Composition of Transformations

Lesson 9.5: Symmetry

## Unit 4-Congruent Triangles

Lesson 4.1: Classifying Triangles

Lesson 4.2 & Lab Angles of Triangles

Lesson 4.3: Congruent Triangles

Lesson 4.4: Proving Triangles Congruent

Lesson 4.5: Proving Triangles Congruent

Lesson 4.6: Isosceles and Equilateral Triangles

\*\*This schedule may change, however when it does, I will update this syllabus.

