



# GEOMETRY 22

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Insert Teacher Name

Insert Room Number

Insert Full Year/Semester

Insert Period

Insert Email Address

## COURSE DESCRIPTION

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The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## COURSE OBJECTIVES

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Students should:

- Experiment with transformations in the plane.
- Make geometric constructions.
- Use coordinates to prove simple geometric theorems algebraically.
- Prove geometric theorems.
- Understand similarity in terms of similarity transformations.
- Explore properties of similarity and prove theorems involving similarity.
- Define trigonometric ratios and solve problems involving right triangles.
- Experiment with transformations in the plane.
- Understand and apply theorems about circles.
- Explain volume formulas and use them to solve problems.
- Visualize relationships between two-dimensional and three-dimensional objects.
- Apply geometric concepts in modeling situations.
- Translate between the geometric description and the equation for a conic section.

## UNITS OF STUDY

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- Modeling with Geometry & Definitions
- Geometric Relationships and Properties
- Coordinate Geometry
- Similarity
- Trigonometric Ratios
- Rigid Motions
- Circles and Conics
- Geometric Measurement and Dimension

## COURSE POLICIES AND REQUIREMENTS

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### GRADING

Summative Assessments:	Insert % Here (Minimum of 70%). Insert Categories/Weighting (ie. Papers – 30%)
Formative Assessments:	Insert % Here (Maximum of 30%). Insert Categories/Weighting (ie. Quizzes – 50%)
Behavioral Characteristics:	Insert % Here (Maximum of 10%) Insert Categories/Weighting (ie. Particip. - 90%)
Insert Additional Grading Information Here	

### MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

### EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

### EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here