

## Geometry B Course Description

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Geometry B begins with determining perimeter, area, and volume of 2-D and 3-D geometric shapes. Furthermore, students are expected to demonstrate competencies concerning circumference, area, surface area, and volume of circles and spheres. Ratios, proportions, and similarity are also covered throughout the course along with Trigonometric ratios and vectors. Students also learn the relationships of tangents, chords, secants, and inscribed angles when dealing with circles. Logical and Indirect reasoning are other important areas covered in the course. Knowledge will be demonstrated through quizzes, unit exams, worksheets, a midterm exam, and a final exam.

Before beginning this course, you should have taken the Orientation course. This course contains information that will help you be successful in your regular courses.

### Course Requirements

- Quizzes
- Unit Reviews
- Unit Exams
- Projects and Discussions
- Midterm Exam
- Final Exam (password required)

### Course Outline

#### Unit 1 - Polygons and Quadrilaterals:

- Classifying Polygons
- Quadrilaterals

#### Unit 2 - Perimeter and Area of Polygons:

- Perimeter of Polygons
- Area of Polygons - Part I
- Area of Polygons - Part II

#### Unit 3 - Circles:

- Circumference and Area of Circles
- Arc Length Segments and Sectors of a Circle

#### Unit 4 - Surface Area and Volume of Prisms:

- Surface Area of Prisms

- Surface Area of Pyramids, Cones, and Cylinders
- Volume of Prisms
- Volume of Pyramids, Cones, and Cylinders
- Surface Area and Volume of a Sphere

Unit 5 - Proportions, Similarity, and Trigonometry:

- Ratio Proportions and Similarity
- Trigonometric Ratios
- Inverse of Trig Functions
- Vectors

Unit 6 - Angles, Arcs, Chords, Secants, and Tangents of Circles:

- Properties of Tangents, Chords, and Arcs
- Inscribed Angles
- Angles Formed by Chords, Secants, and Tangents
- Products of Chords, Secants, and Tangents

Unit 7 - Logical and Indirect Reasoning:

- Intro to Logical Reasoning
- Logical and Indirect Reasoning