

Geometry Part B

Semester Long Course

Prerequisites: Algebra 1

Course Materials

Your online school will provide the following materials:

- [Flash Player](#)
 - In order to view the activities in the Examples and Practice content items, you will need to have the current Flash player installed on your computer.
- **SAS Curriculum Pathways**
 - Curriculum Pathways is a supplemental web resource that we will be using in this course.
- **Geometer's Sketchpad Instructions**
 - The Geometer's Sketchpad is a software program that we will be using in the course.

You are expected to supply:

- A word processing program (Word Pad or TextEdit is sufficient).
- Plenty of paper for computer printing.
- 1—two inch, three-ring binder to serve as your Geometry notebook.
- 1—set of subject separators/tabs for your notebook , one for each module.
- 1—blank disk for saving your work or you can create a folder on your hard drive to save your assignments.
- A protractor.
- A compass.
- A tape measure for some project type assignments.
- Tissue paper or wax paper for some activities.
- Index cards

Course Objectives

Content will be included, but not limited to, the following:

- geometric constructions
- terminology and fundamental properties of geometry
- deductive and inductive reasoning and their application to formal an informal proof
- formulas pertaining to the measurement of plane and solid figures

- coordinate geometry and transformations on the coordinate plane
- exploration of geometric relationships such as parallelism, perpendicularity, congruence, and similarity
- properties of circles
- right triangle trigonometry

Course Outline

Scope and Sequence

- **Module 5:**
 Polygons and Quadrilaterals
 Parallelograms
 Proving Quadrilaterals are Parallelograms
 Rectangles, Rhombi, and Squares
 Investigating Rectangles, Rhombi and Squares
 Trapezoids
 Kites
 Golden Ratio
- **Module 6:**
 Angle Measures of Polygons
 Perimeter
 Areas of Rectangles and Squares
 Areas of Parallelograms and Rhombi
 Areas of Triangles, Trapezoids and Kites
 Areas of Regular Polygons
 Three Dimensional Figures
 Surface Area of Prisms
 Surface Area of Pyramids
 Volume of Pyramids
- **Module 7:**
 Parts of Circles
 Equations of Circles
 Circumference and Area of Circles
 Arcs and Angles
 Sectors and Segments
 Arcs and Chords
 Inscribed Angles
 Secants, Tangents and Angle Measures
 Segments in a Circle
 Cylinders, Cones and Spheres

- **Module 8:**
 - Transformations
 - Reflections
 - Translations
 - Rotations
 - Dilations
 - Symmetry
 - Matrices
 - Glide Reflection
 - Tessellations