Course Syllabus

GEOMETRY

Code:	431000	**NCAA Approval:**	Yes
Level:	High School	**QM Certified:**	Yes
Duration/Credit:	1.0 Credit/Year	**Textbook:**	None
Prerequisites:	Algebra I or Algebra AB	**Materials:**	None
Standards:	K-8, Algebra I, and Geometry Mathematics Standards	**Technology:**	VA Technology Requirements
Pacing Guide	431000 Geometry Sem 1 Paci… 431000 Geometry Pacing Gui…	**Alignment Matrix:**	Alignment Matrix

Course Introduction

Watch the course introduction video or read the video transcript for a brief introduction to the course.

Course Description

Geometry has been used by man since the beginning of time. The ancient pyramids are based on geometrical design. Geometry is everywhere, not just in pyramids. Engineers use geometry to build highways and bridges. Artists use geometry to create perspective in their paintings, and mapmakers help travelers find things using the points located on a geometric grid. Throughout this course, students travel a mathematical highway illuminated by spatial relationships, reasoning, connections and problem solving.

Course Level Objectives

The objectives for this course include the following:

- Apply congruence in terms of rigid motions
- Experiment with the transformations in the plane
- Prove theorems about triangles and parallelograms
- Define trigonometric ratios and solve problems involving right triangles
- Apply theorems about circles
- Find arc lengths and areas of sectors of circles
- Prove theorems using similarity
- Use similarity in terms of similarity transformations
- Use coordinates to prove simple geometry theorems algebraically
- Explain volume formulas and use them to solve problems
- Apply geometric concepts in modeling situations

Course Participation Information

There are other pieces of important information about your participation in a Virtual Arkansas course. This information can be found in your course in the Virtual Arkansas Program Syllabus.