

Course Syllabus

Geometry Concepts - Course Syllabus



Description:

This course begins with review and introduction of definitions of the building blocks of geometry. Students develop a strong foundation of working with definitions, postulates, and axioms. They will explore logic as it relates to mathematics, reasoning, and proofs. Course content helps the learner cultivate a strong sense of working with figures and shapes of all forms, and expands their ideas into real life problems. Strong spatial reasoning skills are taught as students explore different properties of shapes and figures including congruence, area, perimeter, volume, surface area, and similarity. These new ideas provide learners a place to continually apply their accumulated Algebra knowledge and skills. The course concludes with examining the many properties related to circles, and an introduction to Trigonometry.

Textbook: Geometry Concepts – Joseph G. Williams, B.A. / © Excel Education Systems, Inc. 2019

Course objectives:

Throughout the course, you will meet the following goals:

- Understand points, lines and planes - the basic building blocks of geometry
- Recognize postulates, theorems and properties, and how they are used in geometry
- Identify 2-dimensional and 3-dimensional shapes and their related formulas
- Comprehend and apply the Pythagorean Theorem to right triangle problems
- Understand the geometry of circles and terms used to identify its parts
- Learn the basic tools of Trigonometry and how to apply them to angle measurement

Semester A

- 1: Foundations of Geometry
- 2: Logic and Reasoning in Geometry
- 3: Shapes and Parallel Lines
- 4: Triangle Congruence
- 5: Area and Perimeter

Semester B

- 6: Volume and Surface Area
- 7: Similarity in Shapes
- 8: Geometry of Circles
- 9: Introduction to Trigonometry

Grading Scale

- A = 90-100%**
B = 80-89%
C = 70-79%
D = 60-69%
F = under 59%

Grade Weighting

- Quizzes..... 70%**
Final Exam..... 30%
100%