

Geometry (Mathematics)

Required – Year – 10

Prerequisites: Algebra I

Course Description

The philosophy of Geometry revolves around the ability of math to describe quantitatively the wonders of God's creation. The course maintains the algebraic skills learned in Algebra I and integrates these skills and concepts with geometry to make geometric concepts applicable to every day life.

Course Goal

The Christian teacher will:

1. acquaint the student with the basic knowledge of geometric concepts, postulates and theorems.
2. encourage the student to use geometric skills to become logical thinkers and problem solvers.
3. acquaint the student in the usefulness of Geometry in many vocations.
4. review and use Algebra I skills and concepts.
5. encourage the student to use his or her God given abilities to the best of his/her abilities.
6. teach the student to use different problem solving strategies.
7. teach the student to use inductive, deductive and logic reasoning skills.

Course Objectives

The student should be able to:

1. learn to write the two column and paragraph proof.
2. learn the terms, postulates and theorems of Geometry and apply them to problem solving and writing proofs.
3. learn to analyze new problems and discover ways to solve them.
4. learn to find the area and volumes of plane and solid geometric shapes.
5. learn the symbols that are used in mathematical expressions.

Course Outline

Semester 1

- Chapter 1 – Points, Lines, Planes, and Angles
- Chapter 2 – Reasoning and Proof
- Chapter 3 – Parallel and Perpendicular Lines
- Chapter 4 – Congruent Triangles
- Chapter 5 – Relationships in Triangles
- Chapter 6 – Proportions and Similarity

Semester 2

- Chapter 7 – Right Triangles and Trigonometry
- Chapter 8 - Quadrilaterals
- Chapter 9 - Transformations
- Chapter 10 - Circles
- Chapter 11 – Areas of Polygons and Circles
- Chapter 12 – Surface Area
- Chapter 13 – Volume

Instructional Strategies

Teaching strategies include lecture, demonstration, group activities, and daily practice.

Grading Methods

Your semester grade is broken into to following percentages:

- Chapter Tests (40%)
- Homework (20%)
- Quizzes (15%)
- Semester Exam (15%)
- Participation/Cooperation (10%)

Grading Scale (By percent)

A+(100-98)	B+(89-87)	C+(79-77)	D+(69-67)
A (97-93)	B (86-83)	C (76-73)	D (66-63)
A- (92-90)	B- (82-80)	C- (72-70)	D- (62-60)

Student Materials

Glencoe – Geometry, 2005; scientific or graphing calculator; straight edge; notebook.

Classroom Procedures

Chapter tests will be given every two or three weeks. Missed tests should be made up the next day. All daily assignments from the text must be done in the student's notebook. These notebooks will be collected at the end of each chapter and graded. One or two quizzes will be given each week. These do not need to be made up if missed. It is the student's responsibility to get assignments when class is missed.

All students need to be seated when the bell rings. We will normally begin class by reviewing the previous lesson. Be prepared to ask questions if you did not understand something. Do not come to class and say "I didn't get it." Questions need to be specific. Remember to show your work as you do problems. You will not get credit if you do not show your work.