Department: Math
Course: Geometry
Level: Replacement
Credits: 5

Course Description:
This Geometry course provides the student with in-depth instruction, an above average pace of instruction, critical thinking skills and a cooperative learning environment. At the completion of the course, the student will be able to understand the basic properties of geometric figures involving area and volume, deduction, induction, congruent triangles and similar figures. Students are expected to be able to read and solve problems each night.

Standards

Anchor Text:

Text Title	Publisher/Author	Year/Edition	ISBN	Text Distribution
Prentice Hall Mathematics Geometry	Pearson education, inc.	2004	0-13-062560-4	Online version

Supplementary Materials:
Ruler, protector, scientific calculator

Units of Study:
• Points, lines, planes and angles
• Reasoning and proof
• Perpendicular and parallel lines
• Congruency in triangles and other polygons
• Quadrilaterals
• Proportions and similarity
• Right triangles
• Circles
• Polygons and arcs
• Transformations

Proficiencies:
By the end of this course, students will:
• Differentiate among various concepts of points, lines and angles leasing to geometry postulates and theorem.
• Understand if-then statements as applied to definitions, theorems and postulates.
• Prove triangles congruent using SSS, SAS, ASA, AAS.
• Understand the difference between deduction and induction.

- Recognize and apply basic properties of parallel and perpendicular lines.
- Understand and use the relationships between seven major types of quadrilaterals to solve problems.
- Recognize convex polygons and solve problems about their interior and exterior angles.
- Recognize similar figures and solve problems using the scale factor.
- Understand and use formulas for surface area and volume of prisms, pyramids, cones, cylinders and spheres.
- Apply Pythagorean theorem and properties of special right triangles to solve problems.
- Know and apply the distance and midpoint formulas for two-dimensional coordinate geometry to prove theorems
- Understand properties of rations and proportions.
- Use properties of circles to solve for various segments and angles.
- Solve right triangles using trigonometric ratios

Evaluation & Assessment:
- Tests/Quizzes   50%
- Classwork   35%
- Homework   15%