

West Windsor-Plainsboro High School

Geometry

Description: Geometry is a college preparatory course emphasizing Euclidean geometry. The course includes study of inductive and deductive reasoning, properties of segments, angles, perpendicular and parallel lines, triangles, quadrilaterals, circles, transformations, similarity, congruence, perimeter and area of two-dimensional figures and volume of solids. Real-world problem solving is emphasized in the study of each topic. In addition, various types of proofs (two-column, flow, indirect and coordinate) are incorporated throughout the course. Geometer's Sketchpad and scientific calculators are used regularly.

Textbook: Geometry by Larson, Boswell and Stiff; McDougal Littell, 2004.

Expectations for Students The students enrolled in this course will:

- actively participate in group class activities
- maintain an organized notebook, preferably 3-ring,
- complete class work and homework assignments on time
- complete journal and writing assignments
- acquire a scientific calculator to be used in class and on independent assignments

Measurable Proficiencies: To successfully complete the requirements of this course, the student will demonstrate the ability to apply inductive and deductive reasoning to solve problems in the following areas:

- parallel and perpendicular lines
- angles and segments
- triangles, quadrilaterals and other polygons
- circles
- congruence and similarity
- perimeter, area and volume
- transformations
- right triangle trigonometry

Students will also demonstrate the ability to:

- use a calculator appropriately to solve problems
- communicate mathematics, using verbal and written skills
- use models and the Geometer's Sketchpad to explore and demonstrate concepts

Evaluation: Methods used to evaluate the student's degree of understanding of the course content will include the following: class and homework assignments, group work, computer and calculator activities, projects, quizzes, tests, and a final examination. Assignments and evaluation procedures will be cumulative.

The student will attain a minimum proficiency in the course by earning an average grade of "D", or sixty percent. A minimum of seventy percent will result in a grade of "C"; eighty percent, in a grade of "B"; and ninety percent and above, a grade of "A".

Student Responsibility: It is the responsibility of the student to share the above information with parents or guardians.

September 2008