Option ii Honors Geometry Summer Course Outline

Course Materials

Students should bring notebook, pencil, calculator, and protractor. The Learning Center provides these texts: <u>Geometry for Enjoyment and Challenge</u>, McDougal Littell, and <u>Geometry</u>, Houghton Mifflin. Chromebooks are given to students to access online updates. The instructor adds supplementary materials as needed.

Texts cover: Points, Lines, Planes, and Angles; Deductive Reasoning; Parallel Lines and Planes; Congruent Triangles; Quadrilaterals; Inequalities in Geometry; Similar Polygons; Right Triangles; Circles; Constructions and Loci; Areas of Plane Figures; Areas and Volumes of Solids; Coordinate Geometry; Transformations; Logic.

Every effort is made to satisfy the New Jersey Department of Education Model Curriculum Project, and to prepare the students for their respective high school's exam. See www.nj.gov/education/modelcurriculum/math/Geometry.shtml.

Course Description

Starting with fundamental concepts of Euclidian geometry--points, lines, planes, angles-- students learn properties of parallel lines, planes, triangles, quadrilaterals and circles, including congruence, similarity and inequality relationships. Students learn to calculate areas of plane figures, areas and volumes of solids, and the transformation of figures. The course also covers inductive/deductive reasoning, proving theorems, writing proofs, and using theorems in numerical applications.

This intensive six week program is Monday through Friday, four hours per day, or 20 hours per week, totaling 120 hours.

Student progress is assessed daily. Homework is required and reviewed every day. There are two tests per week, lasting either an hour or ninety minutes depending on material covered. Quizzes are given on days when there is no test. Course grade depends 60% on test performance, 35% on quizzes, and 5% on homework. Students must show all their homework and classwork for full credit.