

DEPARTMENT: MATHEMATICS

NAME OF COURSE: GEOMETRY RESEARCH HONORS

GENERAL DESCRIPTION:

Geometry Research Honors is a one year course which introduces the student to the fundamentals of plane and solid geometric figures. Many topics will be embellished. Problem solving and the development of critical thinking skills will be a major component of this course. Students will be challenged by SAT-type questions, as well as by problems that have appeared on previous mathematics competitions. Students are expected to actively participate in classroom discussion and demonstrate outstanding achievement on a consistent basis. All students enrolled in this course will be required to write a research paper and make an oral presentation. Some students will be selected to enter the Long Island Math Fair.

In addition to the development of skills necessary for the students' progression to higher level courses in this subject area, we seek to cultivate a sense of appreciation of mathematics for its aesthetic value.

MAJOR TOPICS COVERED:

The units of study can be seen at the website:

<http://www.emsc.nysed.gov/ciai/mst/mathstandards/geometry.htm>.

<http://www.engageny.org>

TEXTBOOKS: GEOMETRY by Lewis, 3rd Edition, McCormick-Methers Publishing Co.

Unified Mathematics, Book 2, Houghton Mifflin Co.

REQUIREMENTS:

Students are expected to maintain a set of well organized notes in a mathematics notebook, complete daily homework assignments, and read selections from texts as

assigned. Regular attendance is expected, and students are to make up work missed due to absences. Students should seek extra help during the school day in the mathematics study center or after school with the teacher when necessary. Appropriate behavior, respect for self and others, and participation in classroom activities are expected.

All students are required to write a research paper. Those students whose papers are deemed acceptable will prepare an oral presentation for the Long Island Math Fair.

GRADING PROCEDURES:

The grade for each of the four marking periods is determined by unit exams, quizzes, and timely completion of homework assignments. Students will take the **Common Core Geometry Regents Examination in June**. Extra credit options are given at the discretion of the teacher. A departmental final exam comprises one-fifth of the second quarter grade. The student's final average will be determined by averaging the four quarters and the Regents examination grade equally.