DEPARTMENT: MATHEMATICS
NAME OF COURSE: ALGEBRA 2 COMMON CORE RESEARCH HONORS
GENERAL DESCRIPTION:

Algebra 2 Common Core Research Honors is the last year of the New York State Regents curriculum. Algebra 2 Common Core Research Honors is enriched for the tenth graders in the accelerated mathematics research sequence. The usual topics of Math 3 will be studied in greater depth, and additional enrichment topics such as polar coordinates, series, matrices, and synthetic substitution will be included as time permits. A major component of the course is the presentation of a research report by each student on a topic in mathematics outside the normal curriculum. 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: Polynomial Functions Radicals Expressions, Using the Pythagorean Theorem, Exponential and Logarithmic, Determining Transformations of Functions, Sequences and Series, Mathematical Induction, Matrices, Counting and Probability, Binomial Theorem, Conic Sections, Set Theory, Financial Mathematics

TEXTBOOK: <u>Unified Mathematics Book 3</u>, Houghton Mifflin

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.

GRADING PROCEDURES:

The grade for each of the four marking periods is determined by unit exams, quizzes, the research project, independent study evaluations, and timely completion of homework assignments. A departmental midyear exam comprises one-fifth of the second quarter grade. The student's final average will be determined by averaging the four quarter grades and the Regents grade equally.