

SCHOOL

HIGH

MANASQUAN



## This course offers the students the opportunity to develop skills in the use of inductive and deductive reasoning in the solution of mathematical problems, using Euclidean plane geometry as the model. Traditional axiomatic, transformational, and coordinate and vector approaches are used in the course, as they apply to the problem solutions. The course will focus on rea

### **Prerequisites:**

- Teacher Recommendation
- 8th grade Algebra final course grade (>85)
- 8th grade Algebra I final course grade (>90)

# MUST-HAVE SKILLS FOR A SMOOTH FRESHMAN TRANSITION:

#### **1. Spatial Awareness**

Geometr

• Understanding shapes, diagrams, and their relationships in both two and three dimensions is important.

#### 2. Logical Reasoning

 Many students find geometric proofs challenging. Geometry Honors will complete difficult and intense geometric proofs, and it will be important to write clear, logical arguments using postulates, theorems, definitions, and properties (that will need to be memorized).

#### 3. Participation and Asking Questions

- Engaging in class discussions and seeking clarification when needed will improve understanding. It is expected that students will utilize Unit Lunch to receive extra help.
- 4. Time Management
- Honors-level coursework moves quickly, so keeping up with assignments and preparing ahead for tests is crucial.
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#### 6. Daily Practice

• Geometry builds on itself, so staying consistent with homework and reviewing material regularly is necessary.

#### 7. Detailed-Oriented Approach

- Showing all work in a neat, organized and structured fashion, especially when solving algebraic equations.
- **8. Critical Thinking**
- Geometry Honors problems often require multi-step solutions, so thinking through problems logically is key. It is expected that a student in this course will think critically and use higher-level thinking to solve difficult problems.

A solid understanding of Algebra 1 is essential since Geometry Honors often integrates algebraic concepts. To take this course, you must be comfortable solving linear equations, solving systems of equations using all methods, simplifying radicals, factoring all quadratic expressions, and using the Quadratic Formula.