In this course, students will explore the relationships among points, lines, and planes in space. The concept of logical reasoning and the exploration of complex geometric situations lead students to make formal mathematical arguments. Geometric shapes are described and characterized. Equivalence relations pertaining to geometry such as congruence and similarity, along with spatial, coordinate geometry, circles, spheres, and transformations are studied.

**Grading**

50% Mastery (7)
50% Progress (at least 24)

Students may retake a Mastery Assessment (unit test) if they score below a 70%. Mastery assessments could be unit tests, projects or a cumulative assessment for the course.

**Progress** grades can be from classwork, homework, warm-ups, quizzes and/or other work completed for the course.

Work will be considered LATE after 3 school days and deduction of points will occur. Assignments will not be accepted after 10 school days.

**Materials**

- Notebook/binder
- Pencils/erasers
- Colored pencils
- Laptop/schoology
- Calculator
- Ruler
- Patty paper*

*Should be provided with material from the school

**Academic Honesty**

All students at Queen Anne’s County High School are expected to conduct themselves with great pride in academics and the community at large. To this end, it is expected that all students will maintain academic integrity in every assignment. Work must be completed individually unless otherwise directed by the teacher. **Plagiarism** is a severe offense at QACHS and will result in immediate consequences. The use of Photomath and other electronic sources is a form of plagiarism.
Students must log into our class on schoology every school day to be counted as present. Students should attend live sessions and complete daily work to keep up in the class. The teacher/school should be contacted if a student will be absent from class. Students are responsible for all missing work due to an absence.

**Synchronous** – Join the video conference on time and have materials ready. These materials include pencil, paper, calculator and any websites needed to complete math work. Have Schoology open and ready to go in a browser. You are expected to be on the video conference for the duration of class. Please find a quiet place in your house and give yourself an area to work.

**Asynchronous** – Assignments that are asynchronous are to be done on your own; however, I am available for help during the designated asynchronous period. Also during this time you may be asked to attend a video conference for small group instruction. Small group instruction, if assigned, is mandatory.

**Check-in Day** – Every Wednesday there will be a brief 10 minute video conference or check in to provide a brief period of instruction and to ensure all students are on track with the current assignments. Students will also complete an asynchronous assignment on check-in day.

**Office Hours** – Every day except for Wednesday there are Office Hours set aside for reteaching, 1:1 or group tutoring, small group instruction and student/parent meetings. You may schedule a time during office hours for tutoring. You may also attend a tutoring or instructional video conference during office hours. Office hours are considered part of the school day, so tutoring or conferences scheduled during this time are mandatory. If there is an instructional conflict during the requested time, we will work together to find a time that works.

**Helpful Resources**
- DESMOS: Classroom activities and online calculator
  - [https://www.desmos.com/](https://www.desmos.com/)
- Agile Mind will be used throughout the course for tutorials and practice.

**Schedule**
- **Monday:** LIVE Class @ 11:05 - 11:50
- **Tuesday:** Check-in @ 11:05
- **Wednesday:** Check-in @ 11:05
- **Thursday:** LIVE Class @ 11:05 - 11:50
- **Friday:** Check-in @ 11:05

Small group sessions during office hours daily. I can require you to meet or you can request a session.
Course Topics

Unit 1: Notation, reasoning, Transformation
Topic 1: Use Inductive Reasoning
Topic 2: Rigid Transformations
Topic 3: Transformations and Coordinate Geometry

Unit 2: Intro Triangles
Topic 4: Deductive Reasoning
Topic 6: Lines and Transversal
Topic 7: Properties of Triangles
Topic 8: Special Lines and Points in triangles

Unit 3: Triangles and Congruency/Similarity
Topic 9: Congruent triangle postulates
Topic 10: Using congruent triangles
Topic 12: Dilation and Similarity
Topic 13: Applications of Similarity

Unit 4: Discovering Trigonometric Relationships
Topic 14: Pythagorean Theorem
Topic 15: Right Triangle and Trig Relationships
Topic 17: Polygons and special quadrilaterals

Unit 5: Circles
Topic 18: Algebraic representation of circles
Topic 19: Chords, arcs, and inscribed angles
Topic 20: Lines and segments on circles

Unit 6: Area and Volume
Topic 21: Modeling with Area
Topic 24: Prisms and cylinders
Topic 25: Pyramids and cones
Topic 23: Volume

Geometry in the real world...uses and careers

Architects, Drafters, Mechanical Engineers, Surveyors, Construction, Designers, Navigators, Astronomers, Video game designers, and Artists all use Geometry.
Can you think of any other careers?

How would you use Geometry in your daily life?

Geometry is all around us in nature, architecture and technology

Schoology Code of Conduct

1. While on Schoology, what I say and how I say it will be school appropriate.
2. I will use posts to discuss school-related content only.
3. I will use a respectful tone of voice when posting. All school rules and consequences related to harassment apply to Schoology.
4. I will use appropriate grammar instead of texting language.
5. I will not reveal any personal information on Schoology. This includes telephone numbers, addresses, emails, etc.

Inappropriate Content: If you think there is something inappropriate posted on Schoology, please tell your teacher immediately!