George Washington High School

Course Syllabus

Course Title: Geometry (inclusion teacher)
Instructor Name: Mrs. Cardona

- Room #: C-217
- Email address: jcardona@mail.dps.k12.va.us
- Planning Period: 5th period

Course Description:
Geometry, aligned with the Virginia 2023 Mathematics Standards, provides an in-depth study of geometric concepts, including reasoning, proofs, constructions, transformations, and coordinate geometry. Students will explore relationships among points, lines, angles, triangles, polygons, circles, and 3D figures using both formal and informal methods. The course emphasizes transformational geometry—reflections, rotations, translations, and dilations—to investigate congruence and similarity, while integrating algebraic and graphical representations. Technology tools like Desmos and GeoGebra are used to support visualization and problem-solving. Honors-level expectations include a faster pace, deeper conceptual understanding, and greater emphasis on application and critical thinking.

Instructional Philosophy:
Our class time each day will be organized into three basic sections. We will begin class with a warm up question based on either a topic previously covered in the course, or an application of a topic currently being taught. The main part of our class will include direct instruction and guided practice. We will finish class each day with either a quiz or time given to complete individual homework assignments. The best way to learn math is to discuss problems with the instructor and students and practice concepts on your own to solidify your grasp of the material. This will require you to be attentive and engaged every day during class.

Major Course Projects & Instructional Activities:
Every day you will have guided notes to complete by following along with the teacher. Each week you will be given 1-3 homework assignments and quizzes to demonstrate your grasp of the material. Homework assignments will require your work to be written clearly so that anyone could understand how you solved each problem. Every 1-2 weeks you will be given an in-class test to ascertain your content knowledge. At the end of our course, you may be given a final project requiring a written paper and/or a classroom presentation. The final project gives

you the opportunity to research any topic or person related to the field of mathematics from any time period or continent that interests you.

Grading Scale:

A= 90-100	C= 70-79
B= 80-89	D= 60-69

F= below 60

Grade Weights per Quarter:

Summative Assessments (Gold Category) = 40%
Tests and Final Project

Formative Assessments (Silver Category) = 35%
Homework, Quizzes, some class notes

Bronze Category = 25%
Problems done at the beginning of class, some class notes

Quarter 1 (first nine weeks): 45% of overall grade

Quarter 2 (second nine weeks): 45% of overall grade

Final Exam: 10% of overall grade
The final exam covers everything we will learn in Geometry. You will be required to take the Geometry SOL. This will count as your final exam grade. The date of the Geometry SOL will be announced later in the semester.

Classroom Expectations:
Cell Phones, Smartwatches, Air Pods, Tablets, etc. should not be seen or heard in our classroom. **If they are seen, a referral will be given.** A parent conference will be held and the student could face disciplinary action.

Supplies and Materials Needed:

- ☐ Students need a notebook (or binder with notebook paper),
- ☐ Binder (To put all student Notes/ Class Work/ Homework for grading purpose biweekly),
- ☐ pens or pencils, and erasers.
- ☐ Chromebook

*Red pens should never be used to complete homework assignments. To be successful in a math class requires PRACTICE which MUST be done on paper EVERY DAY.

**Students need their Chromebooks to be fully charged at the beginning of every school day. If a student does not have their Chromebook, they are not prepared and will have difficulty completing the lesson and assignment(s) for the day. This impacts their grade.

DPS Homework Policy:
The homework policy for our course will be the same as policies adopted by the DPS School Board and included in the student handbook. Some exceptions may apply.

Attendance Policy:

Effective August 2025, students in grades 9-12 must attend at least 90 percent of the class days to receive course credit.

It is important to note that all absences, irrespective of being excused or unexcused, are considered when evaluating attendance.

Extra Help:
If you are struggling with any concepts and would like extra help, please reach out to your teacher. You can also utilize websites like Khan Academy and The Organic Chemistry Tutor's YouTube channel to find helpful videos and practice problems to supplement your learning.

Time and Place to be Reached by Parents, Guardians, or Students:
You can email me at **jcardona@mail.dps.k12.va.us** at any time for help.

Learning Objectives and Tentative Outline:

Unit Name	Standards of Learning (SOL)	Big Ideas	Suggested Time Frame	
			Yearlong	Semester
Unit 0: Think Like A Mathematician	**Priority SOL: 8.MG.1ab; 8.MG.4de** Complementary SOL: N/A	Angle Pair Relationships Pythagorean Theorem	5 days	3 days
Unit 1: Foundations and Logic	**Priority SOL: G.RLT.1abcd** Complementary SOL: N/A	Geometric terms Logic	24 days	12 days
Buffer Days: Assessment, Enrichment, and Remediation			5 days	2 days
Unit 2: Lines and Triangles	**Priority SOL: G.RLT.2c; G.TR.1a** Complementary SOL: G.RLT.2ab; G.TR.1 bcde	Relationships of Parallel Lines Relationships between Angles & Sides of Triangles	24 days	12 days
Buffer Days: Assessment, Enrichment, and Remediation			5 days	2 days
Unit 3: Transformations and Congruence	**Priority SOL: G.TR.2.ab, G.RLT.3c** Complementary SOL: G.TR.2d, G.RLT.3ab	Transformations in the Coordinate Plane Proving Triangle Congruence	22 days	11days

		Buffer Days: Assessment, Enrichment, and Remediation	5 days	3 days
Unit 4: Similarity, Right Triangles, & Trigonometry	**Priority SOL: G.RLT3.c, G.TR.3ab, G.TR.4acefg** Complementary SOL: G.TR.3cde, G.TR.4bd	Proving Similarity in Triangles Trigonometry & Applications of the Pythagorean Theorem	20 days	9 days
		Buffer Days: Assessment, Enrichment, and Remediation	5 days	2 days
Unit 5: Polygons and 3-D Figures	**Priority SOL: G.PC.1abc, G.PC.2bc, G.DF.1bcd, G.DF.2bc** Complementary SOL: G.PC.1d, G.PC.2a, G.DF.1a, G.DF.2ade	Properties of Quadrilaterals and Convex Polygons Surface Area, Volume, Proportions, & Changes of Dimensions in Prisms	22 days	10 days
		Buffer Days: Assessment, Enrichment, and Remediation	5 days	2 days
Unit 6: Coordinate Geometry and Circles	**Priority SOL: G.PC.1ab, G.PC.3f, G.PC.4b, G.TR.4g** Complementary SOL: G.TR.2c, G.TR.3c, G.PC.3abcdef, G.PC.4ac	Distance, Midpoint, & Lines in the Coordinate Plane Similar and Congruent Figures Circle Equations and Properties	18 days	9 days
Unit 7: Show What You Know	Review assessment data to identify student strengths and areas for growth. Provide differentiated learning opportunities to reinforce and extend understanding, ensuring **all** students demonstrate ongoing mastery through targeted support and enrichment.		20 days	13 days