Geometry

Grades:	**8th - 12th**
Prerequisite:	**Successful completion of Algebra 1**
Days of Week:	**Monday**
Time of Class:	**11:00 am – 12:30 pm ET**
Length of Class:	**30 weeks**
Semester:	**Full year**
Tuition:	**$600.00**
High School Credit:	**1 math**

Class Dates:

Week 1: Week of September 11

Week 2: Week of September 18

No classes from September 25 – October 6, 2023 – Jewish Holidays

Week 3: Week of October 9

Week 4: Week of October 16

Week 5: Week of October 23

Week 6: Week of October 30

Week 7: Week of November 6

Week 8: Week of November 13

No classes from November 20 – 24 – Thanksgiving Holidays

Week 9: Week of November 27

Week 10: Week of December 4

Make-Up Days: Week of December 11

Time off for Christmas and New Year's! Enjoy the holidays!

Week 11: Week of January 8

Week 12: Week of January 15

Week 13: Week of January 22

Week 14: Week of January 29

Week 15: Week of February 5

Week 16: Week of February 12

Week 17: Week of February 19

Week 18: Week of February 26

Week 19: Week of March 4

Week 20: Week of March 11

Make-Up Days: Week of March 18

Please note that there are two breaks during this year's Spring term, for the observances of Eid and Passover.

Week 21: Week of March 25

Week 22: Week of April 1

Week of April 8: No Classes due to Eid (Muslim) Holiday – Eid Mubarak to our Muslim families!

Week 23: Week of April 15

Weeks of April 22 and April 29: No Classes – Spring Break – Happy Passover to our Jewish families!

Week 24: Week of May 6

Week 25: Week of May 13

Week 26: Week of May 20

Week 27: Week of May 27

Week 28: Week of June 3

Week 29: Week of June 10

Week 30: Week of June 17

Make-Up Days: Week of June 24

Instructor's Name: Tina Dewey
Instructor's Email: tinadeweyonline@gmail.com
Instructor's Phone: 517-348-9113

Description of Class:

This high-school level course provides students with the fundamental vocabulary, language, properties, and procedures of geometry. The emphasis is on developing reasoning skills

through the exploration of geometric relationships, which include properties of geometric figures, trigonometric relationships, and geometric proofs. The course includes application of both algebra and geometry skills to solve problems.

Class Approach:
During class students can expect to participate in a warm-up activity, have an opportunity to ask questions on the previous homework assignment, and learn new material while completing guided notes. Students are encouraged to actively participate in class using the chat feature. The "I do, we do, you do" approach is used for the instruction of new material. Completion of problems will gradually shift from the instructor modeling how to complete the problems to the student completing problems on their own.

Goals:
Students will attain and exhibit knowledge of concepts, definitions, properties, and applications of the topics listed in the weekly course schedule as well as develop the computational skills and strategies needed to solve problems. Students will develop logical thinking skills and deductive reasoning through the writing of geometric proofs and the solving of application problems involving geometric figures.

Textbook:
No textbook required. Students will be provided with files of the course materials by the instructor.

Additional Supplies/Resources Needed:
Access to a printer before each class meeting to print guided notes, homework assignments, study guides, and tests. Students will need a scientific or graphing calculator, or an online equivalent.

Student Expectations:
Students are expected to participate in class by completing the guided notes, responding to instructor questions using the chat feature, and asking for help when needed. Students are expected to complete homework according to the instructor's specifications and to the best of their ability. Completed homework must be turned in on time to earn credit. The homework answers and the steps used to find the answer will be provided to students after the time each assignment is due, but before the next class. Students are expected to read and apply instructor feedback on homework, use the provided answers to check their work, and correct errors on their assignments. Finding and correcting homework errors is a vital step to success in math. To LEARN math, one must DO math.

Weekly Homework:
Homework practice assignments will be given for each lesson. An additional video lesson will also be assigned most weeks. Study guides to review the unit will be provided before the unit

test. Occasionally, spiral review will be assigned for both review and practice of specific concepts. An online skills practice website will be available to students for this purpose. The average student can expect to spend three to four hours on homework completion each week.

Homework Policy:

Completed assignments are generally due by 8pm Eastern on the day before the next class, unless stated otherwise. Students will earn credit and feedback for completed assignments turned in on-time with steps shown. Homework is graded based on effort, and not necessarily correct answers. Students are expected to complete their work according to the instructor's specification to the best of their ability, and with integrity. When students neatly and legibly show the mathematical process used to complete the homework problems, individual feedback on errors in their process will be provided. Homework turned in after it is due will not earn credit for on-time homework completion.

Additional Policies:

Tests will be given for each unit, and a percentage grade provided by the instructor. Each student is required to complete the unit study guide, and work with the instructor to make any necessary corrections before the unit test will be made available. Each student will be provided the unit test individually after demonstrating their understanding of the concepts. Unit tests are due no later than 30 days after the completion of the unit, however it is suggested that each student completes the unit tests as soon as they are ready.

Additional Help:

Please message me if you find that you need some extra help. Please always read my feedback on your assignments. Feedback will be specific to your assignment. Secondly, please send me a private chat in class when you have questions. The first part of class is reserved for questions from students. Students will need to correct their assignment using the answers provided before class. For additional help, we can occasionally set up ten minutes of one-on-one time. I also offer tutoring at a discounted rate for students who need more extensive help.

Evaluation and Grading:

Students will be evaluated on the following, and each category will be weighted as follows:

On-time homework completion (30%)
Participation in class (15%)
Unit tests grades (55%)

Anticipated Weekly Course Schedule:

Week	Topic
Week 1	Points, lines, planes, line segments, rays, midpoint, and Segment Addition Postulate

Week	Topic
Week 2	Angles, classifications, bisect, Angle Addition Postulate, and angle pairs
Week 3	Midpoint formula, distance formula, Pythagorean theorem, perimeter and area
Week 4	Conditional, converse, and biconditional statements, properties of equality and congruence, and algebraic proofs
Week 5	Beginning geometric proofs
Week 6	More geometric proofs, relationships between lines, and angles pairs created by lines
Week 7	Proving lines parallel and perpendicular
Week 8	Classifying triangles and the triangle sum theorem
Week 9	Triangle congruence proofs
Week 10	More triangle congruence proofs

Week	Topic
Week 11	Triangle midsegments and inequalities
Week 12	Converse of Pythagorean theorem, Pythagorean inequalities
Week 13	Special Right Triangles
Week 14	Properties of polygons and parallelograms
Week 15	Properties of other quadrilaterals
Week 16	Ratio review and similar figures
Week 17	Similar triangles and trigonometric ratios
Week 18	Application of trigonometric ratios
Week 19	Law of Sines and Law of Cosines
Week 20	Application of the Law of Sines and Law of Cosines

Week	Topic
Week 21	Area of composite figures
Week 22	Area of regular polygon and classification of solid figures
Week 23	Surface area and volume of prisms
Week 24	Surface area and volume of pyramids
Week 25	Surface area and volume of spheres
Week 26	Parts of a circle, central angle, and arc length
Week 27	Sector of a circle and equations for circles
Week 28	Inscribed angles and reflections
Week 29	Translations and rotations
Week 30	Symmetry