PETERS TOWNSHIP HIGH SCHOOL
COURSE SYLLABUS: GEOMETRY HONORS

Course Information	Teacher Information
Course Length: Full Year Class Location: 220 Teacher Website: https://palermo.educatorpages.com	Name: Maura Palermo Phone: 724-941-6250 ext. 5303 Email: palermom@pt-sd.org

Course Overview and Essential Skills

This course is a study of the language, concepts and techniques of Geometry that will challenge students to critically analyze and logically solve problems. This course is the foundation for students' ability to recognize spatial relations and apply logical reasoning skills. Topics include parallel and perpendicular lines, triangle congruence and properties, polygons, similarity, trigonometry, circles and spatial reasoning. Many real world applications are presented within the course content. This course includes a heavy emphasis on Algebra skills such as setting up and solving equations, graphing, systems of equations and factoring. The pacing of this course is rigorous.

Course Textbook and Required Materials

- Geometry: Holt McDougal

- Online textbook: http://my.hrw.com   Username: honorsgeomet12   Password: palermo

- Required daily materials: Textbook, Three-Ring Binder, Pencil, Scientific or Graphing Calculator (TI-83 Plus, TI-84, or TI-84 Plus)

Course Outline of Material Covered:

Unit or Topic	Concepts/Skills/Resources	Timeframe
Chapter 1 Foundations for Geometry	- Identify and describe points, lines and planes - Measure and construct segments - Measure and construct angles - Identify and apply angle relationships - Use formulas in geometry - Find midpoint and distance in the coordinate plane - Perform transformations in the coordinate plane	~4 Weeks
Chapter 2 Geometric Reasoning	- Use inductive reasoning to make conjectures - Identify and write conditional statements - Identify and write biconditional statements and definitions - Use deductive reasoning to verify conjectures - Analyze direct and indirect arguments - Create and analyze truth tables - Construct algebraic proofs - Construct geometric proofs	~4 Weeks

Chapter 3 Parallel and Perpendicular Lines	• Identify and apply angle relationships formed by lines • Identify and apply angles formed by parallel lines and transversals • Prove lines parallel • Identify and apply properties of perpendicular lines • Differentiate between slopes of lines • Graph parallel and perpendicular lines in the coordinate plane • Construct geometric proofs	~3 Weeks
Chapter 4 Triangle Congruence	• Classify triangles • Identify and apply angle relationships in triangles • Identify and apply properties of congruent triangles • Use triangle congruence theorems: SSS, SAS, ASA, AAS, and HL • Identify and apply properties of isosceles and equilateral triangles • Construct geometric proofs	~3 Weeks
Chapter 5 Properties and Attributes of Triangles	• Identify and apply properties of perpendicular bisectors and angle bisectors • Identify and apply properties of bisectors of triangles • Identify and apply properties of medians and altitudes of triangles • Apply the triangle midsegment theorem • Identify inequalities in one triangle • Identify inequalities in two triangles • Apply the Pythagorean Theorem • Apply Special Right Triangles	~4 Weeks
Chapter 6 Polygons and Quadrilaterals	• Identify and apply properties and attributes of polygons • Identify and apply properties of parallelograms • Apply conditions for parallelograms • Identify and apply properties of special parallelograms • Apply conditions for special parallelograms • Identify and apply properties of kites and trapezoids	~3 Weeks
Chapter 7 Similarity	• Define and set-up ratios • Define and solve proportions • Set-up ratios and solve proportions in similar polygons • Identify and apply triangle similarity theorems: AA, SSS, and SAS • Apply properties of similar triangles • Use proportional relationships • Identify and apply dilations and similarity in the coordinate plane	~3 Weeks
Chapter 8 Right Triangles and Trigonometry	• Identify and apply similarity in right triangles • Identify and apply trigonometric ratios • Solve for missing angles and side lengths in right triangles • Identify and solve for angles of elevation and angles of depression	~3 Weeks

Chapter 9 Extending Perimeter, Circumference, and Area	• Develop formulas for triangles and quadrilaterals • Develop formulas for circles and regular polygons • Calculate perimeter and area of composite figures • Calculate perimeter and area in the coordinate plane • Investigate the effects of changing dimensions proportionally • Solve problem situations involving geometric probability	~3 Weeks
Chapter 10 Spatial Reasoning	• Identify, construct, and represent three-dimensional figures • Apply formulas in three dimensions Calculate the surface area of prisms and cylinders • Calculate the surface area of pyramids and cones • Calculate the volume of prisms and cylinders • Calculate the volume of pyramids and cones • Calculate the surface area and volume of spheres	~3 Weeks
Chapter 11 Circles	• Identify and apply properties of lines that intersect circles • Define, identify, construct and calculate the measure of arcs and chords • Apply formulas for sector area and arc length • Define, identify, construct and calculate the measure of inscribed angles • Identify and apply angle relationships in circles • Identify and apply segment relationships in circles • Write equations and graph circles in the coordinate plane • Solve problems using the equation of a circle and/or the graph of a circle	~3 Weeks

Depending on the needs of the class or changes in the school year, the course outline is subject to change.

Teacher Grading Policy:

- The grading scale for the district is as follows:

A	90 - 100
B	80 – 89
C	70 – 79
D	60 – 69
F	59 and below

  The overall grade for a nine-week period will be determined by dividing a student's total points by the overall total points and multiplying by one hundred.

- Each student's grade will consist of the following: Tests

  Quizzes/Pop Quizzes

  Class Activities

  Homework Checks

  Final Exam

Classroom Procedures and Expectations:

The following are my expectations for you. They are fairly simple and straightforward and will help to ensure that you have a successful experience this year.

I expect that you will:

- Arrive to class on time
- Arrive to class prepared with all materials listed above
- Show respect towards any teacher, fellow student, or visitor in our classroom
- Complete nightly homework assignments to the best of your ability
- Ask questions if you are not arriving at the correct answers
- Seek help from me outside of class when you do not fully understand a concept
- Not cheat or plagiarize any work that is intended to be a representation of your ability
- Not use your cell phone or I-pod in class
- Always strive to put forth your best effort
- Be patient … learning and fully comprehending math concepts takes time

The following is what you can expect from me.

You can expect that I will:

- Show you respect
- Be prepared for every class in order to teach the material in what I believe to be the most effective/efficient way possible
- Provide you with homework assignments that directly reflect what was taught in class
- Provide immediate feedback on assignments completed for homework
- Provide you with an opportunity during class to ask questions and seek help with concepts that you are not fully understanding
- Make myself available outside of class to provide extra help to students who are struggling

Homework:

Homework will be assigned nightly. This is your chance to practice and apply the concepts taught during class. It is essential that you complete the nightly assignments as well as seek extra help as soon as you begin to struggle. Homework will be assessed randomly through a Homework Check.

Tests/Quizzes:

Quizzes will be given after covering a few sections within a chapter. Tests may be given at the end of each chapter. There will be no retests!

Absence:

When absent, it is the student's responsibility to:
- Get assignments from the class website
- Collect handouts from the back of the room for the day(s) missed
- Get any missed notes from a RELIABLE friend or classmate
- Read the topic in the book with the examples that are provided
- Make an appointment with me after doing all of the above if help is still needed

- **Tests/Quizzes:**
    a. If you were present the day before a test/quiz but you are absent the day of the test/quiz, you will be expected to take the test/quiz on the day you return.
    b. If you are absent on a review day prior to a test/quiz day, you are still responsible to take the test/quiz on the regularly scheduled date.
    c. It is your responsibility to arrange a time to make-up any quiz/test if you do not want to miss class time to take the quiz/test.

Cell Phones:

- **In order to avoid distractions, cell phones will not be permitted in class. The consequences for having a phone out are as follows:**
    First Offense: Warning
    Second Offense: Phone call/email to parent/guardian
    Third Offense: Discipline referral to assistant principal
- **As always, any device that is out during a Quiz or a Test will result in a 0% for that student on that assessment.**

Honor Code
- All academic work in this course follows the Academic Integrity Policy (#145) of the Peters Township School District. Students are expected to maintain the Peters Township Honor Code:
    - As a student of Peters Township School District, I recognize the value of my own learning and pledge to maintain honesty and academic integrity in all that I do. All work that I submit is my own.
- Any student that is unsure of the expectations of an assignment should seek clarification from the teacher.
- Upon submission of every assignment and assessment in this class, you are agreeing to comply and uphold the PTHS Honor Code.

Website Reminder

Absent a day? Get your assignment…homework is posted daily!

Check frequently for announcements, class documents, homework, and more.

https://palermo.educatorpages.com

- I have read and understand the class expectations and guidelines for Mrs. Palermo's Honors Geometry class.

- Upon submission of every assignment and assessment in this class, I agree to comply and uphold the PTHS Honor Code (Academic Integrity Policy (#145) of the Peters Township School District)

Print Student's Name   Student Signature

Parent Cell/Work Phone Number   Parent/Guardian's Email **(Please print clearly.)**

Parent/Guardian Signature