

Practical Geometry

Course Syllabus

Spring 2011-2012

Instructor: Mr. Bob Biese

Classroom: Room 103

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HS phone number: (610) 298-8661

THE BEST WAY TO CONTACT ME IS VIA E-MAIL

Materials: EXPECTED to be brought to class everyday by every student

Text: McDougal Littell – Geometry Concepts and Skills – Students will use an online Textbook in Class, If needed, a student will be assigned a hardcopy of the textbook for use at home, otherwise, they may access their textbook online.

***Very Important Link: http://www.classzone.com/books/geometry_concepts/index.cfm

Recommended calculator: TI 84 Plus is recommended, however...the TI-30X IIS (available in most department/office supply stores) will be sufficient for most of your needs

Notebook: a three ring notebook will be required for keeping tests, handouts, notes, homework and projects. This notebook will be graded weekly. (1½ - 2 inch diameter will do)

Pencil: ***This is a mathematics course – I expect all tests and homework to be completed in pencil. I will not accept tests or homework that have been completed in pen.***

Course description

Geometry gives considerable attention to developing an understanding of the nature of deductive proof. Strong emphasis is placed on knowledge of definitions, theorems, and postulates. Students are encouraged to think of geometry as a system requiring logic of thought. In addition to the study of logic, students will explore angles, right triangles, circles, polygons, and three-dimensional shapes.

What to Do if You Miss Class:

- Making up work is your responsibility! When you return to school after an absence, first, check the class google group to see what assignments and activities you missed and/or check with a fellow classmate to see what information you need to obtain and what assignments were missed.
- If, over the course of the period, you have not received any missed handouts homework etc., see me at the end of class for the necessary material.
- If a quiz or test was missed, you need to see me at the end of the period or over flex so we can designate a time and place for you to complete the test.
- Hand-in any missing assignments to me in the period hand-in/out folder. If work is being handed in late due to an excused absence from class – please indicate that on the top of the paper by writing the word “absent” and the date of your absence. Unless specified by you, I will assume the assignments are late.
- If you are absent for one school day, all work that was due on that day will be due immediately upon your return. This includes tests and quizzes. Work that was assigned prior to your absence is due the day you return to class. Work for multiple days of absence must be completed within 5 days upon your return to school.

Practical Geometry Unit Plan

- Chap 1:** Basics of Geometry – Patterns; Inductive Reasoning; Points, Lines, and Planes; Intersections; Segments and Their Measures; Angles and Their Measures (7 Days)
- Chap 2:** Segments and Angles – Segment Bisectors; Angle Bisectors; Complementary and Supplementary Angles; Vertical Angles; Deductive Reasoning; Properties of Equality and Congruence (7 Days)
- Chap 3:** Parallel and Perpendicular Lines – Relationships Between Lines; Theorems About Perp. Lines; Angles Formed by Transversals; Parallel Lines and Transversals; Showing Lines are Parallel; Using Perp. And Parallel Lines; Translations (9 Days)
- Chap 4:** Triangle Relationships – Classifying Triangles; Angle Measures of Triangles; Isosceles and Equilateral Triangles; Pythagorean Theorem and Distance Formula; Converse of the Pythagorean Theorem; Medians of a Triangle; Triangle Inequalities (8 Days)
- Chap 5:** Congruent Triangles – Congruence and Triangles; Proving with SSS and SAS; Proving with ASA and AAS; HL Congruence Theorem; Using Congruent Triangles; Angle Bisectors and Perpendicular Bisectors; Reflections and Symmetry (9 Days)
- Chap 6:** Quadrilaterals – Polygons; Properties of Parallelograms; Showing Quads. Are Parallelograms; Rhombuses, Rectangles, and Squares; Trapezoids; Reasoning About Special Quadrilaterals (7 Days)
- Chap 7:** Similarity – Ratio and Proportion; Similar Polygons; Showing Triangles are Similar: AA; Showing Triangles are Similar: SSS and SAS; Proportions and Similar Triangles; Dilations (7 Days)
- Chap 8:** Polygons and Area – Classifying Polygons; Angles in Polygons; Area of Squares and Rectangles; Area of Triangles; Area of Parallelograms; Area of Trapezoids; Circumference and Area of Circles (6 Days)
- Chap 9:** Surface Area and Volume – Solid Figures; Surface Area of Prisms and Cylinders; Surface Area of Pyramids and Cones; Volume of Prisms and Cylinders; Volume of Pyramids and Cones; Surface Area and Volume of Spheres (6 Days)
- Chap 10:** Right Triangles and Trigonometry – Simplifying Square Roots; 45-45-90 Triangles; 30-60-90 Triangles; Tangent Ratio; Sine and Cosine Ratios; Solving Right Triangles (7 Days)
- Chap 11:** Circles – Parts of a Circle; Properties of Tangents; Arcs and Central Angles; Arcs and Chords; Inscribed Angles and Polygons; Properties of Chords; Equations of Circles; Rotations (7 Days)