Geometry 1-2
Rob Jamieson
2020-2021 School Year
Franklin High School

Room: S-244 (When we return)

Instructor: Rob Jamieson

E-mail: rjamieson@pps.net

Remind Messenger: Text @b7a9ab to the phone number 81010 to join.

Office Location: S-154-5 (When we return)

Office Hours: Upon request. See weekly schedule at the bottom for normal office hours

Course website: Canvas will serve as our course website this year. pps.net/student

---

Prerequisite: Students enrolled in precalculus should have successfully completed (and earned credit for) Algebra 1-2.

Course Materials

Textbook: No textbook needed.

Other Required Materials: Notebook exclusively for math to complete homework and insert notes from class (preferably with graphing paper). Calculators are helpful in this course. Online calculators will also be used (Desmos).

Course Description and Topics

During this course, students will learn about the following topics:

1. Transformations
2. Lines and angles
3. Congruence and similarity
4. Trigonometry
5. Coordinate geometry
6. Circles
7. Solids

Emphasis will be placed on specific topics as they are considered more essential for further studies in mathematics. Transformations, Lines and Angles, Trigonometry, Coordinate Geometry, and Circles are all topics that will have stronger emphasis during this class.

Course Grading:

20% of the overall grade will be based on assignments, quizzes, and other classwork/homework problems. These items can be re-done or retaken for full credit.

80% of the overall grade will be based on tests/assessments. We will spend 15 minutes of class time revising those tests/assessments rather than full retakes of these tests. There are no retakes of tests/assessments. The final exam is considered a test. There are no retakes on the final exam. Revisions will provide students with an opportunity to get full points on that test.

Standards (Oregon Common Core State Standards):

Transformations:

HSG-CO.A. Experiment with transformations in the plane

HSG-CO.B. Understand congruence in terms of rigid motions

HSG-SRT.A. Understand similarity in terms of similarity transformations

Lines and Angles:

HSG-CO.A. Experiment with transformations in the plane

HSG-CO.A.1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

Congruence and Similarity:

HSG-CO.B. Understand congruence in terms of rigid motions

HSG-CO.B.7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

HSG-CO.B.8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

HSG-SRT.A. Understand similarity in terms of similarity transformations

HSG-SRT.A.2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar;explain using similarity transformations the meaning of similarity for triangles as the equality of all pairs of angles and the proportionality of all pairs of sides.

HSG-SRT.A.3. Use the properties of similarity transformations to establish the AA criterion for similarity of triangles.

Trigonometry:

HSG-SRT.C. Define trigonometric ratios and solve problems involving right triangles

HSG-SRT.C.6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

HSG-SRT.C.8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

Coordinate Geometry:

HSG-GPE.B.6. Find the point on a directed line segment between two given points that divide the segment in a given ratio.

HSG-GPE.B.7. Use coordinates to compute perimeters of polygons and areas for triangles and rectangles, e.g. using the distance formula.

Circles:

HSG-CO.A. Experiment with transformations in the plane

HSG-CO.A.1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

HSG-C.A. Understand and apply theorems about circles

HSG-C.A.2. Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

HSG-C.B. Find arc lengths and areas of sectors of circles

Solids:

HSG-GMD.A. Explain volume formulas and use them to solve problems

HSG-GMD.A.3. Use volume formulas for cylinders, pyramids, cones and spheres to solve problems.

HSG-MG.A. Apply geometric concepts in modeling situations

HSG-MG.A.2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).

Assessment (pre/post)/evaluation/grading policy:

90-100% - A

80-89.9% - B

70-79.9% - C

60-69.9% - D

 0-59.9% - F

Feedback: As students complete coursework, they will be given timely and specific feedback regarding their performance. ***It is imperative that they stay current with the coursework so they can get feedback in time for the tests.*** Students will receive this feedback through multiple forms. Comments on turned in work, auto-generated replies when using an app, peer-to-peer review, and self-diagnosis based on a teacher generated answer key will all serve students as they improve their skills.

Homework: With distance learning, virtually every assignment is homework. I do however provide practice problems for students to complete outside of class.

Quizzes and Review: I will provide students an opportunity to access documents that look very similar to a test format throughout each unit. They will complete work, take a picture of it, and submit that work via Canvas. These are opportunities to have students get their work examined by me and correct it if needed. Although most test reviews are comprehensive to that unit, students should also be reviewing any course material that was covered in that unit (or previous ones).

Tests: Students will take tests during the synchronous time we have during the week. Students will be permitted to work collaboratively on these tests with students who are also enrolled in my precalculus class and who are attending that day in our zoom call. Students will be sent to breakout rooms to collaborate. If a student is absent, they can arrange a time to take a new version of that test with me. Students who miss a test will be given a zero until that test is made up. Students should make every effort to communicate about missing class and especially missing a test day to me. Students should make up tests in a timely manner (as soon as possible). In most cases, make up tests should happen within a week of when it was assigned.

Test Corrections: Test corrections are simply an opportunity to revisit the test and fix any mistakes they see on their test. Students will have 15 minutes to fix any errors and then have their test re-graded. This time will not be collaborative in nature and students should expect to work independently. The policy for test corrections follows the policy of testing in terms of missing class. Students should complete this in a timely manner and communicate with me regarding conflicts. Please note: 15 minutes is not a lot of time, so students should not expect to complete several problems, but simply correct any mistakes on these tests. 15 minutes is a real expectation.

Communication: I make every attempt to work with students who may have a special circumstance for which I have not foreseen and created policy within this syllabus. The policies you see here are a guideline and should be discussed with me if it ends up applying to you. If there are barriers that are preventing your success in this course, I want to know about them so I can help you navigate towards successful completion of this course.

Community: One of the best resources you can use in this class is each other. Students should study together and look to work together in class. Although I will facilitate example opportunities, I encourage you to work on study

groups on your own. The Remind App can be a great resource as well – please contact me when you need something.

Attendance:

Attendance is taken every day (M-F).

○ Evidence of attendance will be measured in at least one of the following ways within a 24 hour period:
   A. Participating in a video class (live)
   B. Communication from the student to the teacher via chat, text message, communication app, or email
   C. A phone call between the teacher or EA/Paraprofessional with the student, or, for younger students, with the parent
   D. Posting completed coursework to a learning management system or web-based platform or via email
   E. Turning in complete coursework on a given day.

Weekly Schedule:

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am-9:00am	Independent work time	Independent work time	Independent work time	Independent work time	Independent work time
9:15am – 10:30am	Period 1	Period 3	Pd.1: 9:15 – 9:50am No Zoom Call Pd. 2: 9:55 – 10:30am No Zoom Call	Period 1	Period 3
10:40am – 11:55am	Period 2	Period 4	Pd. 3: 10:35 – 11:10am No Zoom Call Pd. 4 11:15 – 11:50am No Zoom Call	Period 2	Period 4
11:55am – 12:35pm	Lunch	Lunch	Lunch	Lunch	Lunch

12:35pm – 1:20pm	Period 3 Independent work time (Jamieson is available but a zoom call isn't required)	Period 1 Independent work time (Jamieson is available but a zoom call isn't required)	Teacher office hours (Jamieson available for help) Until 1:45pm	Period 3 Independent work time (Jamieson is available but a zoom call isn't required)	Period 1 Independent work time (Jamieson is available but a zoom call isn't required)
1:20pm – 1:50pm	Independent work time (Jamieson available via Remind/email)	Independent work time (Jamieson available via Remind/email)		Independent work time (Jamieson available via Remind/email)	Independent work time (Jamieson available via Remind/email)
2:00pm – 2:45pm	Period 4 Independent work time (Jamieson is available but a zoom call isn't required)	Period 2 Independent work time (Jamieson is available but a zoom call isn't required)	Independent work time	Period 4 Independent work time (Jamieson is available but a zoom call isn't required)	Period 2 Independent work time (Jamieson is available but a zoom call isn't required)
2:45pm – 3:15pm	Independent work time (Jamieson available via Remind/email)	Independent work time (Jamieson available via Remind/email)		Independent work time (Jamieson available via Remind/email)	Independent work time (Jamieson available via Remind/email)