Course Syllabus

Franklin High School	2020-2021

DIRECTIONS: For each course, complete the syllabus and share with your evaluating/supervising administrator **as a pdf** ("File-download-PDF document") by 9/28/20. Syllabi will be posted on the FHS website under your name for the public to view.

Course Overview

NOTE: For core classes, all elements of this section (except for name and contact information) are the same.

Course Title: Geometry 1-2	
Instructor Name: Maggie Ordaz	Contact Info: mordaz@pps.net
Grade Level(s): 9, 10, 11, 12	
Credit Type: (i.e. "science", "elective") math	# of credits per semester: .5

Prerequisites (if applicable):
Pass Algebra 1-2 recommended

General Course Description:
In this course, students will explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Areas of focus will be transformations, congruence, similarity, right triangles, trigonometry, and circles. In addition, students may build on probability concepts from the middle grades by expanding their ability to compute and interpret theoretical and experimental probabilities for compound events, attending to mutually exclusive events, independent events, and conditional probabilities. Students will use a variety of online Geometry tools, including but not limited to: GeoGebra, desmos...

Prioritized National/State Standards:

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-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.

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.

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.

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

HSG-GMD.A. Explain volume formulas and use them 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).

Course Details

Learning Expectations

Materials/Texts

Canvas classroom
Online applications

Course Content and Schedule:

Unit 1: Constructions

Unit 2: Transformations

Unit 3: Lines and Angles

Unit 4: Congruence and Similarity

Unit 5: Trigonometry

Unit 6: Coordinate Geometry

Unit 7: Circles

Unit 8: Solids

Unit 9: Probability

Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):

- Assignments and tests which clearly identify C-level and B and A level work based on standards based learning targets.
- Flexible time for assignment and test completion.
- Investigations offer students the opportunity to work at their pace, and challenge students to think about topics.
- Access to teacher notes.
- Multiple opportunities to demonstrate that a standard has been met.
- Vocabulary is defined for students in their notes.
- Toolkits provided for students as a way to organize notes.
- Honors credit is available to those interested.

Safety issues and requirements (if applicable):

Issues will be addressed per the Student Climate Guide.

Classroom norms and expectations:

- Check Canvas for daily assignments - both for synchronous and asynchronous classes.
- Come to class on time for synchronous classes.
- Come to class prepared to focus and learn.
- Always try and do your best.
- Participate in class. Complete warm-ups. Contribute to discussions and group work. Work during work times.
- Complete all work assigned.
- Abide by FHS rules. Strive to be Thoughtful, Respectful, Organized, Neighborly and Generous!

Evidence of Course Completion

Assessment of Progress and Achievement:

Warm ups during synchronous classes allow students to practice and then compare their answers to the correct answers when we go over them.

Daily assignments are graded in Canvas and are graded on completion/participation. Asynchronous assignments are set up to provide feedback to students as they complete the assignment.

Formative assessments are given daily in the form of exit tickets/quizzes. They are graded by Canvas and the correct answers are given after students submit their answers. Their main purpose is to provide students with feedback.

Individual Tests are given at the end of each unit. They are 100% of the overall grade. Tests can be retaken after a review has been completed.

Progress Reports/Report Cards (what a grade means):

Standard Grading Scale:

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

Grades will be weighted as follows:

Tests (summative assessments): 100%

Career Related Learning Experience (CRLEs) and Essential Skills:

To be determined.

Communication with Parent/Guardian

What methods are used to communicate curriculum, successes, concerns, etc.?

Canvas classroom
Synergy
Synchronous class times
email
Remind

Personal Statement and other needed info

Welcome to Geometry! I look forward to working with you all this year! I am available on Remind and through email if you have any questions.