<u>Course Syllabus</u>

Geometry | Summer 2020

Objective: Geometry is offered this summer and will cover core concepts in geometric principles applying geometric relationships/theorems in proof and problem-solving. The course is designed to be a full Geometry prep course, and will focus on developing critical-thinking skills in mathematics.

Prerequisites: Algebra 1

Instructor Contact Information:

    Karishma Johnson (She/Her)   karishma.johnson[at]fremontstem[dot]com

Class Times:

Lecture: Tuesday/ Thursday/ Saturday 6:30 PM - 8:00 PM

Required Materials:

- Note-taking materials (e.g. notebook, binder)
- Folder / Binder for homework, handouts, etc.
- Scientific and Graphing Calculator (if available to you)
- Writing Utensils (pencil, eraser, pen, etc.)
- Straightedge / Ruler

Program Cost: $475 tuition

Note: the full program cost is due on the first day of lecture, either in person (cash/check) or via Paypal online. If the student for some reason must miss the first day, the fees must be paid by the first attended lecture. The program fee is non-refundable unless unexpected and severe circumstances arise.

Books and Course Material: Purchase of any textbook is NOT required for participation. Please refer to 'Required Materials' for any other expected items. Any textbooks and readings will be made freely available. Materials will be made accessible through Google Classroom and the class Google Drive.

Google Classroom: Google Classroom can be accessed using the code **'xv4sdhg'**. Here you will be able to view announcements, assignments, grades, materials, and ask any questions.

Additional Help: Questions can be posted to the Google Classroom or sent via email. If questions are about a specific problem, photos are helpful when asking questions about your work

Homework: This course will be fairly rigorous and move at a fast pace in order to complete all standard material. As such, homework will be regularly assigned and include a range of computational and application problems. Students are expected to complete homework to the best of their ability before each class. All solutions will be available to review online for preparation of quizzes and any missed problems will be gone over in the following lectures.

Quizzes: Quizzes will be scheduled with a minimum of a week's notice. Solutions will be made available after with grades input in Google Classroom.

Notes: Note-taking will be optional and not graded or collected. It is in good practice to take notes for future reference, homework, and staying attentive in class.

Final Exam: A comprehensive final exam will be administered on the second to last day of class. Corrected exams with feedback will be returned in the final lecture, where exam questions can be discussed as a class.

Grading: Grades for homework, in-class quizzes, and exams will be inputted into Google Classroom for you to monitor your own progress.

Tentative Nature of the Syllabus: The contents of this syllabus and attached schedule are tentative in nature and may be subject to change or revision. The instructor holds the right to make changes to the schedule and/or organization of the class as necessary. Students and parents will be identified of any changes via email.

Special Accommodations: If your student requires special accommodations, please notify the instructor as soon as possible.

Tentative Schedule

Date	Lesson	Topic
Week 1: 6/23 (Tue)	Lecture 1	Introduction Basics of Geometry: Definitions, Measuring, and Constructions
Week 1: 6/25 (Thr)	Lecture 2	Shapes in the Coordinate Plane Pairs of Angles
Week 1: 6/27 (Sat)	Lecture 3	Proofs and Logic in Math
Week 2: 6/30 (Tue)	Lecture 4	Parallel and Perpendicular Lines
Week 2: 7/2 (Thr)	Lecture 5	Transformations: Translations, Reflections, Rotations
Week 2: 7/4 (Sat)		*Holiday*
Week 3: 7/7 (Tue)	Lecture 6	Transformations: Congruence, Dilations, Similarity
Week 3: 7/9 (Thr)	Lecture 7	Triangles: Angles, Congruency, Types of Triangles, Proving Congruence
Week 3: 7/11 (Sat)	Lecture 8	Relationships Within Triangles: Perpendicular and Angle Bisectors, Medians and Altitudes, Midsegments
Week 4: 7/14 (Tue)	Lecture 9	Polygons: Angles, Properties of (Special) Parallelograms, Trapezoids, and Kites, Proofs of Polygons
Week 4: 7/16 (Thr)	Lecture 10	Similarity: Polygons, Triangles, and Proportionality
Week 4: 7/18 (Sat)	Lecture 11	Right Triangles and Trigonometry: Pythagorean Theorem, Special Right Triangles, Similar Right Triangles
Week 5: 7/21 (Tue)	Lecture 12	Circles: Lines and Segments, Arc Measures, Chords, Inscribed Objects, Circumference
Week 5: 7/23 (Thr)	Lecture 13	Area of Shapes, Volume
Week 5: 7/25 (Sat)	Lecture 14	Coordinate Geometry, Constructions
Week 6: 7/28 (Tue)	Lecture 15	Review (* Any leftover material)
Week 6: 7/30 (Thr)	Lecture 16	Final Exam
Week 6: 8/1 (Sat)	Lecture 17	Review Final Exam