Fremont STEM
Tutoring | Hands-On Science | Consulting

Course Syllabus

Geometry | Summer 2021

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:

Joy Suh joy.suh@fremontstem.com

Class Times:

Monday / Wednesday / Friday 1:00 - 2:30 pm, June 21 - July 30. Holiday on July 5th.

Required Materials:

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

Program:

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: This course will use Larson and Boswell's Big Ideas Math Geometry (ISBN 978-1-60840-839-9) which may be viewed here. Materials will be made accessible through Google Classroom.

Google Classroom: We will be using Google Classroom for class communications, announcements, assignments, grades, materials, and questions.

Additional Help: Questions may be posted to the Google Classroom or sent via email. If questions are about a specific problem, photos are helpful to include.

Fremont STEM

Tutoring | Hands-On Science | Consulting

Homework: This course will be fairly rigorous and move at a fast pace in order to complete all standard material. Homework will be assigned regularly and will include a range of computational and application problems. Students are expected to complete homework to the best of their ability before each class. Access to solutions will be provided.

Quizzes: Quizzes will be scheduled with at least one week's notice. Solutions will be made available afterwards, with grades entered into Google Classroom.

Notes: Note-taking will not be graded, but will be expected. Note taking is invaluable for processing the material, and helps with retention and review.

Final Exam: A comprehensive final exam will be administered on the second to last day of class. Corrected exams with feedback will be returned and discussed in the final lecture.

Grading: Grades for quizzes and exams will be entered 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 notified of any changes via email.

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

Fremont STEM
Tutoring | Hands-On Science | Consulting

Tentative Schedule

Date	Lesson	Topic
Week 1: 6/21 (Mon)	Lecture 1	Introduction Basics of Geometry: Definitions, Measuring, and Constructions
Week 1: 6/23 (Wed)	Lecture 2	Shapes in the Coordinate Plane Pairs of Angles
Week 1: 6/25 (Fri)	Lecture 3	Proofs and Logic in Math
Week 2: 6/28 (Mon)	Lecture 4	Parallel and Perpendicular Lines
Week 2: 6/30 (Wed)	Lecture 5	Transformations: Translations, Reflections, Rotations
Week 2: 7/2 (Fri)	Lecture 6	Transformations: Congruence, Dilations, Similarity
Week 3: 7/5 (Mon)		*Holiday*
Week 3: 7/7 (Wed)	Lecture 7	Triangles: Angles, Congruency, Types of Triangles, Proving Congruence
Week 3: 7/9 (Fri)	Lecture 8	Relationships Within Triangles: Perpendicular and Angle Bisectors, Medians and Altitudes, Midsegments
Week 4: 7/12 (Mon)	Lecture 9	Polygons: Angles, Properties of (Special) Parallelograms, Trapezoids, and Kites, Proofs of Polygons
Week 4: 7/14 (Wed)	Lecture 10	Similarity: Polygons, Triangles, and Proportionality
Week 4: 7/16 (Fri)	Lecture 11	Right Triangles and Trigonometry: Pythagorean Theorem, Special Right Triangles, Similar Right Triangles
Week 5: 7/19 (Mon)	Lecture 12	Circles: Lines and Segments, Arc Measures, Chords, Inscribed Objects, Circumference
Week 5: 7/21 (Wed)	Lecture 13	Area of Shapes, Volume
Week 5: 7/23 (Fri)	Lecture 14	Coordinate Geometry, Constructions
Week 6: 7/26 (Mon)	Lecture 15	Review (Any remaining material)
Week 6: 7/28 (Wed)	Lecture 16	Final Exam
Week 6: 7/30 (Fri)	Lecture 17	Review Final Exam

Note: Lecture days are subject to change should unexpected circumstances arise.