Fremont STEM
Tutoring | Hands-On Science | Consulting

Course Syllabus

Geometry | Fall 2020 – Spring 2021

Objective: Geometry is offered this school year 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:

Scott Clark
Scott.clark@fremontstem.com

Class Times:
Lecture: Tuesday 7:30 - 9:00 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 online transfer. 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 previously given to you. 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

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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.

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Tentative Schedule

Week	Date	Lecture	Topic
Week 1	9/8/20	Lecture 1	Introduction Basics of Geometry: Definitions, Measuring, and Constructions
Week 2	9/15/20	Lecture 2	Shapes in the Coordinate Plane
Week 3	9/22/20	Lecture 3	Pairs of Angles
Week 4	9/29/20	Lecture 4	Pairs of Angles cont'd
Week 5	10/6/20	Lecture 5	Proofs and Logic in Math
Week 6	10/13/20	Lecture 6	Proofs and Logic in Math cont'd
Week 7	10/20/20	Lecture 7	Parallel and Perpendicular Lines
Week 8	10/27/20	Lecture 8	Parallel and Perpendicular Lines cont'd
Week 9	11/3/20	Lecture 9	Transformations: Translations, Reflections, Rotations
Week 10	11/10/20	Lecture 10	Transformations: Translations, Reflections, Rotations cont'd
Week 11	11/17/20	Lecture 11	Transformations: Congruence, Dilations, Similarity
Week 12	11/24/20	No Class	Thanksgiving Break
Week 13	12/1/20	Lecture 12	Transformations: Congruence, Dilations, Similarity cont'd
Week 14	12/8/20	Lecture 13	Triangles: Angles, Congruency, Types of Triangles, Proving Congruence
Week 15	12/15/20	Lecture 14	Triangles: Angles, Congruency, Types of Triangles, Proving Congruence cont'd
Week 16	12/22/20	No Class	Winter Break
Week 17	12/29/20	No Class	Winter Break
Week 18	1/5/21	Lecture 15	Relationships Within Triangles: Perpendicular and Angle Bisectors, Medians and Altitudes, Midsegments
Week 19	1/12/21	Lecture 16	Relationships Within Triangles: Perpendicular and Angle Bisectors, Medians and Altitudes, Midsegments cont'd

Week 20	1/19/21	Lecture 17	Relationships Within Triangles: Perpendicular and Angle Bisectors, Medians and Altitudes, Midsegments cont'd
Week 21	1/26/21	Lecture 18	Polygons: Angles, Properties of (Special) Parallelograms, Trapezoids, and Kites, Proofs of Polygons
Week 22	2/2/21	Lecture 19	Polygons: Angles, Properties of (Special) Parallelograms, Trapezoids, and Kites, Proofs of Polygons cont'd
Week 23	2/9/21	Lecture 20	Similarity: Polygons, Triangles, and Proportionality
Week 24	2/16/21	Lecture 21	Similarity: Polygons, Triangles, and Proportionality cont'd
Week 25	2/23/21	Lecture 22	Right Triangles and Trigonometry: Pythagorean Theorem, Special Right Triangles, Similar Right Triangles
Week 26	3/2/21	Lecture 23	Right Triangles and Trigonometry: Pythagorean Theorem, Special Right Triangles, Similar Right Triangles cont'd
Week 27	3/9/21	Lecture 24	Right Triangles and Trigonometry: Pythagorean Theorem, Special Right Triangles, Similar Right Triangles cont'd
Week 28	3/16/21	Lecture 25	Circles: Lines and Segments, Arc Measures, Chords, Inscribed Objects, Circumference
Week 29	3/23/21	Lecture 26	Circles: Lines and Segments, Arc Measures, Chords, Inscribed Objects, Circumference cont'd
Week 30	3/30/21	Lecture 27	Circles: Lines and Segments, Arc Measures, Chords, Inscribed Objects, Circumference cont'd
Week 31	4/6/21	No Class	Spring Break
Week 32	4/13/21	Lecture 28	Area of Shapes, Volume
Week 33	4/20/21	Lecture 29	Area of Shapes, Volume cont'd
Week 34	4/27/21	Lecture 30	Area of Shapes, Volume cont'd
Week 35	5/4/21	Lecture 31	Coordinate Geometry, Constructions
Week 36	5/11/21	Lecture 32	Coordinate Geometry, Constructions cont'd
Week 37	5/18/21	Lecture 33	Review/Leftover Material
Week 38	5/25/21	Lecture 34	**Final Exam**
Week 39	6/1/21	Lecture 35	Review Final Exam