

GEOMETRY COURSE SYLLABUS & DESCRIPTION

Instructor:

Email:

DESCRIPTION

This course will provide you with a solid foundation in geometry. You will learn the properties and relationships of geometric objects. It includes the study of points, lines, angles, planes, triangles, quadrilaterals, polygons, circles, areas, volumes, and proofs. Additionally, this course will introduce you to mathematical reasoning, real world logical practice through geometry, development of problem solving skills, and enhancement of your logical thinking.

The most exciting aspect of our class is that it will be run in a “blended” online format. This is also widely known as “flipped” learning. For a wonderful TED talk describing this model, Google “Khan Academy TED” also seen here: <https://www.youtube.com/watch?v=nTFEUudhfs>

In this cutting-edge learning model, we are “flipping” the order of how learning takes place. The students will watch videos in place of lectures, at home or anywhere. Then what is typically known as “homework” can be done anywhere as well, even in class, at your own pace, done in groups or independently.

Each section has 4 major components, handled in the following order. Students will:

1. Watch a specific video or videos selected for that section
2. Complete a worksheet as you watch the video, that mirrors the problems done in the video
3. Complete an online quiz which help solidify your understanding
4. Complete classwork on the concept, to deepen learning & provide opportunities to collaborate

Some highlights of running the course in an online, blended fashion:

- No textbook is required. All documents are online and can be printed beforehand.
- The course does not need endless lecturing. It will be more collaborative, fluid, and at the personal pace of each individual.
- The entire class is self-paced. As long as students are not falling irreversibly behind, students can move through the material as they feel comfortable.
- In line with the previous point, tests are not officially scheduled. When a student feels ready to take the test, that’s when s/he will take it.
- The tests will be generally untimed, except for a 2 hour maximum window allocated to take the test. The following is an excerpt from Stanford’s Dr. Jo Boaler, who leads the charge in cutting edge mathematics and learning research:

Mathematics is not a subject that requires fast thinking. Award winning mathematicians talk about their slow, deep thinking in math. Fields Medal (the highest math award on the planet, given every four years) winning mathematician Laurent Schwartz wrote in his autobiography that he felt stupid in school because he was one of the slowest thinkers in math. Eventually he realized that speed was not important – “What is important is to deeply understand things and their relations to each other. This is where intelligence lies. The fact of being quick or slow isn’t really relevant.”

REQUIRED SUPPLIES

1. No textbook is required
2. Calculator (any type), pencils, eraser, straight-edge
3. 3-ring binder (critical to have to organize materials), and notebook paper

HOMEWORK

The definition of “homework” is now changed. Your job is to stay on task and on a pace that is appropriate for your goals. Watch videos at home, in class, or anywhere, complete the worksheet that goes with the videos, then the online quiz, then round out the that section with the classwork pages. You may choose to move ahead if you need to, based on your personal scheduling needs and desires.

TESTS

There will be one exam for each chapter.

GRADING PLAN

Course work will be weighted as follows:

Worksheet completion: 10%

(By completing the worksheet in full, this acknowledges that you have actively watched the video, and used it to fill out the sheet.)

Online quizzes: 5%

(These quizzes are for extra practice. Simply doing them will earn full credit, regardless of how many you get right. However, no quizzes taken after that specific test will be accepted.)

Classwork 25%

(Classwork includes completing all materials, participation, helpfulness, engagement, and personal commitment.)

Tests: 45%

Final Exam 15%

Total: 100%

Because our class is run in the blended model, there will be no “late” work deduction. Our course calendar has set benchmarks for what must to completed by the first and second semester report card cut off dates. If any work is missing by those semester deadlines, then that work will be counted as zero.

Borderline grades, meaning 0.5% or less from the next grade up will be rounded, if the student has turned in all work and has maintained an earnest desire to perform well throughout the term.

Thank you for the chance to implement such an exciting and long anticipated way to learn. Please contact me for any reason; I am here to enable your success. Welcome aboard!