MA 061: Geometry I, Winter 2021-22, Alabama School of Mathematics and Science

Instructor: Sarah Brewer   **Email:** sbrewer@asms.net
Class location: S201   **Class times:** Monday, Tuesday, Wednesday, Friday 2:45-3:40
OneNote Class Notebook: will be accessible in the "General" tab in Teams
Office location: B205 (library); when virtual in the Microsoft Teams "Math Lab" "Brewer Office" channel
Office Hours: by appointment
ASMS Math Lab (free peer tutoring): Sunday-Thursday in S305; you can also post questions in the Microsoft Teams Math Lab "Geometry I & II" channel
Website with archived geometry course notes and other resources: mathemartiste.com
Textbook: Harold R. Jacobs, *Geometry: Seeing, Doing, Understanding*, 3rd ed
Khan Academy coach code: FPADXUH7

Course Description: Geometry I is an introduction to Euclidean Geometry, including the nature of reasoning and proof involved in the study of geometry. Topics covered include congruent and similar figures, parallel lines, and planes, plus an introduction to the study of area, volumes, and transformations involving both investigations and deductive proof. Prerequisites: none

Grade determination:
- 60% Major - Tests (all comprehensive)
- 40% Minor - Quizzes, Homework, and Classwork (variety of formats)

Assignment submissions: See the specific assignment instructions in Blackbaud for each assignment, but in general you should have your name, the date, and the assignment clearly printed at the top of each page, the problem numbers clearly labeled, and the final answers circled or boxed. Use the Adobe Scan app in good lighting to get a single pdf file of all pages of your work in order with your name in the file name.

Attendance and Tardiness Policy: Students should be on-time to class. I ask that you please wear masks at all times in the classroom and there should be no eating or drinking. If you are too ill to attend class, it will be your responsibility to get copies of the notes and see to any missed assignments.

Make-up policy: Late assignment submissions will receive a 25% grade reduction unless I receive an excuse from your parent. Note: make-up tests will, in general, be much more difficult than the original.

Technology we will use in this class:
- Blackbaud – grades, official assignment listing, some assignment submissions, course schedule, links to lecture videos and important documents, announcements/copies of emails sent out
- Teams – class meetings, discussion, class files, OneNote Class Notebook
- Microsoft Forms, Khan Academy – for digital submission of work

Classroom Policies:
- If we must hold class remotely, you must have your camera on unless an exemption has been filed with Academic Affairs.
- Your attention should be on the class and material at hand. Your cellphone should be silent and put away. Do not multitask by working on material for other classes.
- Make use of Microsoft Teams to ask questions and/or make comments
- Check the daily schedule for our class on Blackbaud DAILY, where you will find assignments that should be done BEFORE the respective class meeting, as well as links to lecture notes and other information.
- See ASMS Syllabus Addendum in the Community Standards handbook for additional school-wide policies and procedures that also apply in my classroom

Supplies:
- Your own scientific calculator
- Ruler, compass, protractor
- Device with webcam and microphone to connect to class via Microsoft Teams, access OneNote notebook, and submit /access assignments via Blackbaud, Office365 apps, Khan Academy
- Camera/cell phone for photographing your work and photo to pdf app for submitting any work that is not already digital in nature (I recommend Adobe Scan); should not be used for anything non-class related

Teaching philosophy: Everyone can learn mathematics. To do mathematics is to learn how to figure things out. One must work through the frustration, sometimes returning to a problem again and again, and finally enjoying the satisfaction that only comes from hard work. This hard work does not have to be done in a vacuum or bubble. Mathematics is an inherently collaborative discipline, where experts share their knowledge and ideas are discussed and bounced around. Mathematics is best learned by studying with others and probing one's instructors for knowledge and answers to questions you don't even know you have. That satisfaction of having solved a problem for oneself, though, is ultimately an individual experience. Each individual's understanding of a problem, even a problem worked on with others, is a valid contribution to the collective body of mathematical knowledge.

Tutoring: I will be available before and after class most days to answer questions. You can also get help from me during my office hours. My office is conveniently located next to the study rooms in the library, where you can quietly work close by in case you have any questions. Sunday through Thursday nights 7:00pm-9:00pm, the Math Lab proctors host a tutoring lab in S305, where you can go to ask questions or just have a dedicated space to work on your homework. Bring your textbook, notes, etc. with you when attending Math Lab in order to help the proctors best help you.

Tentative Schedule (see Blackbaud Bulletin Board for live updates):

Week 1
- Ch 1 – Intro to Geometry
- Ch 2 – Nature of Deductive Reasoning

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- Ch 3 – Lines & Angles

Week 3
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Week 4
- TEST 1
- Ch 4 – Congruence

Week 5
- Ch 4 – Congruence

Week 6
- Ch 5 - Inequalities

Week 7
- TEST 2
- Ch 6 – Parallel Lines

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Week 8
- Ch 6 – Parallel Lines
- Ch 7 – Quadrilaterals

Week 9
- Ch 7 – Quadrilaterals
- Ch 8 – Transformations

Week 10
- TEST 3
- Ch 9 – Area

Week 11
- Ch 10 – Similarity
- Review

Week 12
- Final Exams Oct 26-29