

MA 062: Geometry II**Spring 2017****Instructor:** Sarah Brewer**Email:** sbrewer@asms.net (best way to contact me)**Office:** S201**Phone:** 251.441.2127**Course web site:** brewermath.com**Office Hours:** MonWedThursFri 9:00-9:55 (2nd per), Tues 1:45-2:40 (7th per), Wed 3:45-4:40 (9th per/"after school")**Math Lab (free tutoring):** Monday-Thursday 7:00-9:00pm in S201**Khan Academy Coach Code:** TDXMZZ

Course Description: Geometry II involves Euclidean Geometry of the circle and associated concurrence theorems, the study of analytic geometry of the various conic sections, and an investigative approach to the study of elementary topology, fractal geometry and nonEuclidean geometry. Prerequisite: MA061.

Text: Harold R. Jacobs, *Geometry: Seeing, Doing, Understanding*, 3rd ed.

Coverage: Chapters 10-16

Grade determination:

Homework (~weekly)	~10x10 points each	Quizzes (~weekly)	5-10x10-20 points each
Tests (best ¾)	3x100 points each	Final Exam	1x200 points

Homework: Assignments should be labeled neatly with your name, date, textbook chapter & section, and problem numbers. Homework grades will be based on both completion and accuracy. Since some textbook problems assigned have answers in the back of the book, students should check their own work for accuracy before submission. Credit will not be given for answers copied from the back of the book or from another student. Show all of your own work. Some assignments may be submitted via turnitin.com. Some assignments will be completed on Khan Academy. Late homework will not be accepted.

Quizzes will be given regularly and will be a combination of theory memorization (rules, definitions, and formulas) and problems similar to and directly from homework assignments. Quizzes can occur any day of the week and may be announced or unannounced. There will be no make-up quizzes. If you miss a quiz with an excused absence, you will have fewer total possible points. Quizzes missed due to unexcused absences will receive a grade of 0.

Tests will consist primarily of material covered since the prior test, but will also include some review questions. The final exam will be comprehensive. If we have time for four tests, the lowest of the four tests will be dropped.
Tentative test dates: Week 3, Week 6, Week 8, Week 10

Make-up policy: Any quizzes or tests missed due to unexcused absences will receive a grade of zero. There will be NO make-up quizzes. Homework assigned during a student's absence must be turned in when the student returns to class. All assignments can be found on my web site calendar. Arrangements to make-up tests must be done BEFORE the test is missed. In case of unexpected illness, this can be done via email.

Note: make-up assignments will, in general, be more difficult than the original.

Cell phone policy: Phones should be SILENT (not on vibrate) and away. I reserve the right to confiscate any phone that I deem a distraction. Use of cell phones during quizzes or tests will result in a grade of zero.

Attendance and Tardiness Policy: Three tardies count as one unexcused absence. A student with three unexcused absences may be assigned a grade of WF for the course. Students are responsible for acquiring any missed notes and assignments (as these are posted on the web, this should not be a problem).

Geometry I Spring 2017 Tentative Schedule

Week 1 – March 2-3 (Thurs is Monday schedule)

- Ch 10 – Similarity
- 10.1 – Ratio and Proportion
- 10.2 – Similar Figures
- 10.3 – Side-splitter Theorem

Week 2 – March 6-10

- 10.4 – AA Similarity
- 10.5 – Proportions and Dilations
- Ch 11 – The Right Triangle
- 11.1 – Proportions in a Right Triangle
- 11.2 – The Pythagorean Theorem Revisited

Week 3 – March 13-17

- 11.3 – Isosceles and 30-60 Right Triangles
- 11.4 – The Tangent Ratio
- 11.5 – The Sine and Cosine Ratios
- 11.6 – Slope
- 11.7 – The Laws of Sines and Cosines
- Test #1
- Ch 12 - Circles
- 12.1 – Circles, Radii, and Chords

Week 4 – March 20-24 (Mon is 1st grade posting;
Tues is ACT for juniors; Thurs-Fri are Junior Trip)

- 12.2 – Tangents
- 12.3 – Central Angles and Arcs
- 12.4 – Inscribed Angles

Week 5 – March 27-31

- 12.5 – Secant Angles
- 12.6 – Tangent Segments and Intersecting Chords
- Ch 13 – The Concurrence Theorems
- 13.1 – Triangles and Circles

Week 6 – April 3-7 (Tues is ACT Aspire for sophomores)

- 13.2 – Cyclic Quadrilaterals
- 13.3 – Incircles
- 13.4 – The Centroid of a Triangle
- 13.5 – Ceva's Theorem
- Test #2

Week 7 – April 10-13 (Mon is 2nd grade posting; Thurs is short day)

- 13.6 – Napoleon's Discovery and Other Surprises
- Ch 14 – Regular Polygons and the Circle
- 14.1 – Regular Polygons
- 14.2 – The Perimeter of a Regular Polygon

<break>

Week 8 – April 24-28

- 14.3 – The Area of a Regular Polygon
- 14.4 – From Polygons to Pi
- 14.5 – The Area of a Circle
- 14.6 – Sectors and Arcs
- Test #3

Week 9 – May 1-5 (Mon is 3rd grade posting)

- Ch 15 – Geometric Solids
- 15.1 – Lines and Planes in Space
- 15.2 – Rectangular Solids
- 15.3 – Prisms

Week 10 – May 8-12

- 15.4 – The Volume of a Prism
- 15.5 – Pyramids
- 15.6 – Cylinders and Cones
- 15.7 – Spheres
- 15.8 – Similar Solids
- 15.9 – The Regular Polyhedra
- Test #4

Week 11 – May 15-19 (Fri is short day)

- Ch 16 – Non-Euclidean Geometries
- 16.1 – Geometry on a Sphere
- 16.2 – The Saccheri Quadrilateral
- 16.3 – The Geometries of Lobachevsky and Riemann
- 16.4 – The Triangle Angle Sum Theorem Revisited

Exams – May 22-25