Math 456: Geometry for Teachers, Spring 2019
Section 1: Mon-Thurs, 12:00 – 12:50, Samuelson 115/138 *(lab)*

Professor Peter Klosterman
Samuelson 229A,   peter.klosterman@cwu.edu
Office Hours: Mon – Fri 10:00 – 11:00 *(If you have a conflict with this time, email or talk to me)*

Text: *Elementary Geometry for College Students* by Alexander and Koeberlein ISBN-13: 978-1-285-19569-8

Course Topics: This course includes an exploration of plane, coordinate, and transformational geometry. Students will develop an understanding of mathematical structure, method, and application while exploring topics such as axiomatic systems, constructions, and transformations.

Exams: There will be 2 midterm exams throughout the quarter, tentatively scheduled for weeks 4 and 8. Final exam is <u>Tuesday, June 4th, noon – 2:00 PM</u>. All exams are closed book. A non-graphing calculator may be used.

Makeup Exams will be given only for legitimate *documentable* reasons. If, for some legitimate reason, you cannot make it to one of the exams, please contact me *before* the exam.

Grading:

Homework		
(best 8 @ 10 pts each)	80 pts	
Geogebra Assignments		
(6 @ 10 pts each)	60 pts	
In-class worksheets		
(best 13 @ 5 pts each)	65 pts	
Questionnaire	5 pts	
2 midterm exams	200 pts	
Final exam	150 pts	
Total Possible:	560 pts	

The following grading scale will be used:

A	93-100%	C	73-78
A-	90-93	C-	70-73
B+	87-90	D+	67-70
B	83-87	D	60-67
B-	80-83	F	0-60
C+	77-80		

Homework Sets will be posted during the week on Canvas, and collected the following Tuesday. You are responsible for doing your own homework, but it is appropriate and often advantageous to work with a study partner or a small study group. Show enough work so that your reasoning is obvious. Your best 8 sets will be counted—other sets will be dropped. **Late homework is not accepted,** so if you aren't done by Tuesday, turn in whatever you have done for partial credit.

Geogebra Assignments will require you to create a Geogebra activity and then email a link for the activity to me at cwu.mathematics@gmail.com.

In-class worksheets will be collected and graded based on completion. These can't be made up—you must be present that day in class to get credit. Not every worksheet we do will be collected. I will announce that day in class whether a worksheet will be collected or not. Your best 13 worksheets count towards your final grade.

http://canvas.cwu.edu (the CWU Canvas website) will have course information, powerpoint slides, class activities, HW sets, exam info, grades, and other miscellaneous information.

Disruptive classroom conduct will not be tolerated. I encourage you to work together on in-class problems when you are given time to do so, but expect you to not distract your tuition-paying peers when I am addressing the class. Repeated disruptive and/or distracting in-class behavior will receive an official warning. If the behavior persists after this, you may receive a deduction of up to 5% of your end-of-course grade.

Cheating will not be tolerated. Cheating will result in a <u>zero</u> grade for the exam and possibly a failing grade for the course. See the CWU Academic Dishonesty statement for more info: https://www.cwu.edu/resources-reports/cwup-5-90-0104-academic-dishonesty

Students with disabilities who wish to arrange for academic adjustments in this class are encouraged to provide me with a copy of their Confirmation of Eligibility for Academic Adjustments and meet with me as soon as possible to discuss their needs and the manner in which their accommodations will be delivered.

Sexual Harassment is not tolerated. You are entitled to a safe and inclusive learning environment where you are treated with dignity and respect. Title IX considers sexual harassment to be a form of discrimination. If you experience sexual harassment, or know someone who is being sexually harassed, you are encouraged to report concerns to me, another faculty member or employee, or to Gail Farmer, Equal Opportunity, at 509-963-2206, farmer@cwu.edu, Bouillon 205. Complete policies are available online at www.cwu.edu/hr.

Other Helpful Information:

- http://www.cwu.edu/learning-commons/university-math-center has information about the University Math Center (Brooks Library 190), where free math tutoring is available.
- Don't be afraid to stop by office hours if you have questions. It is my goal to see you succeed in this class!
- Mark the final exam on your calendar right away so you don't make vacations plans before you're done with the quarter

Order of Topics
Geometry terms & notation
Different types of reasoning; intuition, inductive, deductive reasoning
Parallel and perpendicular lines
Overview of Polygons
Transformations
Triangles (in-depth)
Constructions with compass and straightedge
Quadrilaterals (in-depth)
Proportions and Similarity
Circles
Areas of Polygons and Circles
Locus of Points *(if we have time)*