Geometry   Fall 2014   Laurel Langford
Math 411   laurel.langford@uwrf.edu
                                                   http://langfordmath.com

Office hours (getting help): I will be available in my office (206E NH; office phone 715-425-3119) MWF 11-11:50, T 1-1:50. I am around a lot during the day when I am not in class, and I am (almost) always happy to see you (it is a good idea to make an appointment if you are able to plan ahead). A more complete version of my schedule can be found at the schedule link from my homepage.

Web sites: You'll find the most recently updated theorems list, and day-to-day announcements on my langfordmath web site. You'll find your grades on D2L. If you find an error in the gradebook at any point, please let me know.

Course Objectives:

- Read and understand mathematical language in geometry
- Learn how to come up with and explain a proof
- Prove things about geometry using axioms, definitions and theorems
- Know some examples of geometries that fit various axioms and axiom systems
- Recognize when a proposed geometry proof is correct and when it has errors

Assignments:

As we go through the course, you will be (re-) proving many of the theorems of elementary geometry. We as a class will be building geometry from the ground up, where our "ground" is a set of axioms. Your main tasks will be:
- figuring out how to prove geometry theorems
- writing up your proofs (you will be turning in a few proofs each day)
- sharing your proofs to the class periodically (I will call for volunteers, but I expect everyone to present something on a regular basis)
I'll be collecting and grading your written proofs as homework (but see below).

Presentations: As described above, I will provide opportunities on most class days for you to volunteer to present a proof from the previous night's assignment. I will expect everyone to take advantage of this , and share their work on a regular basis. Part of the grading for the presentations is simply how often you present. Part of the grading is based on the quality of your presentations: is the proof correct? Is your explanation clear and easy to follow? How difficult was the proof that you attempted? Was the proof unusual in some way? Did you prove an important theorem, or just a minor corollary? All of these considerations will affect your score. Your total presentation score will be the average of your 4 highest presentation scores.

Tests: There will regular tests/quizzes (every 2-3 weeks) and a comprehensive final exam. These will comprise the majority of your grade.

Course Grade
  Proof presentations, etc. 10%
  Tests and quizzes** 90%

Your grade will be based primarily on the weighted average (mean) of your scores. Letter grades will be at least as high* as those determined by your weighted average and these percents:

A: 93-100%   A-: 90-92%   B+: 87-89%   B: 83-86%   B-: 80-82%
C+: 77-79%   C: 73-76%   C-: 70-72%   D+: 67-69%   D: 60-66%
  *I occasionally (rarely) raise the grade of a student or students who show superior understanding in a way that is not reflected in the weighted percentage. I never use such measures to lower a grade.
  **This semester, there will be more tests and quizzes and homework will not directly contribute to your grade. Some part of each test will be taken directly from the homework assignments.

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The University of Wisconsin-River Falls welcomes students with disabilities into its educational programs, activities, residential halls, and other programming and services on campus. Those who will need academic adjustments or accommodations for a disability should contact the Office of Student Ability Services at 715-425-4555. Decisions to allow adjustments and accommodations are made by the Office of Student Ability Services on the basis of clinical documentation the students provide to sufficiently indicate the nature of their situation. Additional information is at: http://www.uwrf.edu/AbilityServices/Index.cfm.

This class satisfies some of the math teacher content standards for the state of Wisconsin. More information can be found at http://www.uwrf.edu/MATH/WisconsinContentTeacherStandardsMathematicsCourses.cfm.