

**Office hours** (getting help): I will be available in my office (206F NH; office phone 715-425-3119) MWF 11-11:50, TR 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:

- Learn how to come up with and explain a proof
- Prove things about geometry
- Prove things 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 most 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. All proofs submitted as homework **must be done in pencil**. During class, you will have the opportunity to take notes (either in your notebook or on the sheet you will be turning in) **in pen**. This will let me distinguish *your work* from your understanding of your classmates work. Your turned in proofs will be graded as homework. I expect to see a lot of improvement in your proof writing skills over the course of the semester, so I will be dropping the *lowest 20%* of your turned-in homework assignments—this will make your homework percentage a better reflection of your abilities to construct a geometry proof.

Additionally, there will be a few other homework assignments. I will not be dropping any of these assignments because they will be worth variable numbers of points.

**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? All of these considerations will affect your score.

Unlike homework and tests, your presentation score will be changed and updated rather than added to as the semester goes on.

**Tests:** There will be at 2 tests and a comprehensive final exam. These may be supplemented by shorter quizzes.

### **Course Grade**

Proof assignments 15%  
Proof presentations 10%  
Other assignments 5%  
Tests and quizzes 70%

Your grade will be based primarily on the 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.

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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>.