

Math 392

Winter 2021

Lecture: MWF 2:00–2:50
Zoom ID: 992 2344 7017
Web Page: <http://pages.uoregon.edu/adding/courses/392/>
Book: Shifrin, *Abstract Algebra: a geometric approach*
Instructor: Nick Addington
E-mail: adding@uoregon.edu
Office Hours: Thursdays 2–3, and by appointment
TA: Elisa Bellah
Email: ebellah@uoregon.edu
Office Hours: Mondays and Tuesdays 3:10-5

Grading. Your grade will be based on the following:

- **Attendance and participation (5%).** Normally I don't like to grade on attendance, but for remote courses it seems to be a good idea. You should show up to lectures and participate in the breakout discussions. If you have to miss class, you should watch the recording of the lecture, work on the breakout worksheet, and email me at least one question.
- **Reading (5%).** I will assign weekly reading from the textbook. On Sundays, submit a *short* summary of what you read, and one or more questions you would like me to answer. These are graded on completion.
- **Homework (65%).** On Fridays, upload your homework through Canvas: either scan it in, or take a picture with your phone, or if you type, upload a PDF. You'll be assigned two of your colleagues' homeworks to read, and give them feedback by Monday. By Wednesday, you'll submit a revised version of your homework based on feedback from your colleagues and the TA.

I encourage you to work with other students, but you must do the writing yourself, in your own words. If you write by hand, use pencil, because you will inevitably want to erase something. If you type, use \TeX , not Microsoft Word.

- **Final Project (25%).** Choose a topic that you'd like to pursue further and in more depth, maybe something from the textbook that we didn't have time for. Topic due Monday, February 22; outline due Monday, March 1; draft due Monday, March 8; finished project due Wednesday, March 17.

Learning outcomes. Students will deepen their knowledge of ring theory and become comfortable with ideals and quotient rings; they will learn the basics of group theory and group actions; and they will get a taste of field theory. Students will both acquire and demonstrate their understanding by *writing proofs*. Especially important will be writing in paragraphs, rather than in strings of symbols; keeping in mind the audience for your writing, which is your peers; and “making the easy parts look easy,” that is, avoiding belaboring the routine parts of the proof so that the essential content can shine through.