

Math 391

Fall 2020

Lecture: MWF 2:00–2:50
Zoom ID: 992 1224 1131
Web Page: <http://pages.uoregon.edu/adding/courses/391/>
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: Wednesdays 3:30–4:30, Thursdays 10–12, and Fridays 4–5

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 Mondays, 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 Wednesday. By Friday, 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 Wednesday, November 18; outline due Wednesday, November 25; draft due Wednesday, December 2; finished project due Wednesday, December 9.

Learning outcomes. Students will consolidate their knowledge of basic algebraic ideas including the Euclidean algorithm, complex numbers, and polynomials, will become comfortable with modular arithmetic, and will learn the basics of ring 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.