

Syllabus for Math 351, Spring 2019

Instructor Name: Cartwright, Dustin

Office Hours and Location: M 2–3, T 3–4, and by appointment, Ayres 210

Email: cartwright@utk.edu

Course Webpage: Further information is on the Canvas webpage for this course.

Course Communications: The best way to reach me is by email. I will reply within 24 hours during the work week and usually much faster.

Student Learning Objectives: Upon completion of this course, students should know basic properties of groups and rings, as well as many examples, and know how factorization works for integers, polynomials, and other rings.

Learning Environment: I expect you to attend every lecture, pay attention, and participate in discussions. During lectures, you should not be using your laptop, cell phone, or any other electronic devices.

Text: *Introduction to Abstract Algebra: With Applications* by Thomas Judson. A printed copy is available from the bookstore. In addition, you may download a PDF from Canvas or read it online.

Course Assessment:

- 25% homework
- 30% two in-class midterms (15% each)
- 15% take-home midterm
- 30% final

Each component of your course grade will have a separate grading scale, to be decided after the component is finalized, i.e. the exam is graded, all homework turned in, etc. The cut-offs for the course grading scale will be determined by averaging together the component grading scales according to same proportions as your grades.

Homework: Homework is due at the beginning of class each Wednesday. Assignments will be posted on Canvas at least a week in advance.

You are *strongly encouraged* to discuss your homework with other people in class. However, you must write up your own solutions and you must acknowledge your collaborators or any other sources used beyond the standard course resources.

Exams: Exams will be cumulative, but the second in-class midterm will focus on material since the first in-class midterm.

The in-class midterms and final must be completed without any book, notes, or electronic devices. For the take-home midterm, you may use your own notes and the course textbook, but you may not consult with other students, any other

resources, or the Internet. The take-home midterm will be due in class and posted on Canvas 47 hours in advance.

Make up Policy: No late homework will be accepted. Instead, I will drop the lowest homework score. In the event of an unavoidable absence, you may submit your homework by email, so long as it arrives before class time.

Accommodation for missed exams requires a valid, documented excuse, such as a medical or family emergency. In most cases, you should provide your documentation through and approved by the Dean of Students. Accommodation may take the form of a make-up or by having the final exam replace that component in your grade, as appropriate for the circumstances. Please let me know as soon as possible if you will miss an exam.

How to be Successful in this Course: Go over the lecture material after each class, either your own notes, or the textbook. Start the homework early. Work on the problems by yourself before getting help. If you don't know where to start with a proof, try an example, or make an assumption to make the problem easier.

Go to office hours. When you get your homework and exams back, go over your results and understand why you got the answers you did. Talk to other people in the class about the homework and the material.

If you find yourself falling behind on the material, adjust sooner rather than later. Go back over the notes or the book. Rework problems that you got wrong. Come to office hours if you have questions.

Course Feedback: I welcome your feedback during class or by email.

Course Outline: We will cover modular arithmetic, rings, and groups, with an emphasis on examples such as polynomial rings and permutation groups. We will cover most of Chapters 2–12 from the textbook, as well as additional topics if we have time.

Schedule: The approximate schedule of topics discussed in class is listed on a Canvas page. The dates of the exams are:

- Fri, Feb 15: in-class midterm
- Wed, Mar 13: take-home midterm due
- Fri, Apr 5: in-class midterm
- Mon, May 6, 8–10am: final

Campus Syllabus

If the instructor finds it necessary to make informational changes (e.g. office hours, schedule adjustments) due to students' needs or unforeseen circumstances, students will be notified in writing/email of any such changes.