

Syllabus for Math 552, Spring 2018

Instructor Name: Dustin Cartwright

Office Hours and Location: T 2:00–3:00, F 1:00–2:00, and by appointment, in Ayres 210

Email: cartwright@utk.edu

Course web page: Further information will be posted on the Canvas page 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. If you get a reply in the evening, consider yourself lucky.

Student Learning Outcomes: Upon completion of the course, students should be able to understand modules, fields, and Galois theory at a level that will prepare them for the prelim exam in algebra.

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 unless it is exclusively for note-taking.

Text: *Abstract Algebra* by Dummit and Foote.

Course Requirements, Assessment and Evaluations: Your grade will consist of:

- 35% homework
- 17% in-class midterm
- 18% take-home midterm
- 30% final exam

All exams will be cumulative.

Each component of your grade will have its own grade scale. For the exams, this grade scale will be announced when the exam is returned. The grade scale for the course will be determined by averaging together the component grade scales, according to the above percentages, and this grade scale will be used to determine your course letter grade.

Homework: Homework will be due on Wednesdays at 10:00am, and the assigned problems will be posted on Canvas a week in advance. You will

submit your homework and the take-home midterm as a PDF using Canvas. The PDF may take the form of a scanned copy of your hand-written solutions, but you are strongly encouraged to typeset your solutions in LaTeX. If you have not used LaTeX before, resources are available on Canvas.

Your homework solutions should acknowledge anyone you worked with or any resources you used in coming up with the solution, and you should always write your answer in your own words.

I will post solutions to each homework assignment by selecting among submitted solutions. If you do *not* want your homework solution or solutions shared with the rest of the class, make a note of that fact. In the absence of such a note, when you submit your homework, you are granting me permission to share your solution with the rest of the class.

Test Environment Conditions: During the in-class exams, you will be allowed nothing except your pencil or pen. During the take-home exam, you may refer only to your own written notes, and the course textbook, but not any other resources, such as other books, other people's notes, the Internet, or other people.

Make up Policy: To accommodate any medical, family, personal, or other emergencies that may come up regarding your homework, you will be have *one* homework extension over the course of the semester. The extension will be for up to 7 days from the scheduled due date. For logistical reasons, you may not take an extension on the last homework assignment. Any subsequent late homework submissions after the first will not be graded. Note that the submission deadlines are enforced by Canvas and therefore are strict.

Accommodations for missed exams will only be provided for valid, documented excuses, such as a family or medical emergency, which should be communicated as soon as possible. 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.

If you have a religious obligation which conflicts with one of the requirements of this course, please let me know by the second week of class.

How to be Successful in this Course: Go over the lecture material after class, either your own notes, or the textbook. Start the homework early. Use other resources with your homework, but use them to help you learn, not just complete the assignment. Go to office hours. When you get your exams back, go over your results and understand why you got the answers you did.

You are *strongly encouraged* to work with other students in the course on your homework. You will find that your peers know things which can help you solve problems when you would otherwise be stuck for a long time. When you have a partial solution, they will help you refine your ideas and find gaps in your arguments. Even just the process of explaining your ideas to someone else will help you understand the material better. There is a discussion thread on Canvas set up to help you find collaboration groups.

Course Outline: This course will cover modules, fields, and Galois theory. We will cover the Chapters 10–14 of the textbook, skipping some special topics. An approximate daily schedule of topics is available on Canvas

Schedule:

- Wednesday, March 7, in-class midterm
- Friday, March 9, class cancelled
- Monday, April 9, take-home midterm distributed
- Wednesday, April 11, 10:00am, take-home midterm due
- Monday, May 7, 8am–10am, final exam

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.