

Syllabus for Math 251, Fall 2022, 12:40–1:30

Instructor information

Instructor Name: Dustin Cartwright

Office Hours: Tu 11:30–12:30, W 2:45–3:45 and by appointment in Ayres 210. Office hours are also available via Zoom by appointment.

Email: cartwright@utk.edu

Course Webpage: All further information, including updates to this syllabus, will be on the Canvas webpage for this course.

Course Communications: Most announcements will be made in class. I will use Canvas if I want to reach you between classes or if I want to be sure to reach everyone. I will only email you for urgent messages.

The best way for you to contact me is by email. I will reply within 24 hours during the work week and usually faster, especially during working hours.

Student Learning Objectives

By the end of the course, students should be able to compute row echelon and reduced row echelon forms, inverses, determinants, dot products, bases for the fundamental spaces of matrices, eigenvalues, eigenvectors, and diagonalizations of matrices. Students should also be able to recognize abstract vector spaces and subspaces.

Learning Environment

I expect you to attend every lecture, pay attention, and participate. During lectures, you should not use your laptop, cell phone, or any other electronic devices. Taking notes on a tablet is okay.

You should treat other students in the class with respect, in the classroom and other components of the course.

Text

Elementary Linear Algebra by Anton, Rorres, Kaul, 12th edition.

This book is provided to you through inclusive access, which means that you will automatically be billed for an online version of the textbook. If you obtain the textbook some other way, opt out of inclusive access in order to receive a refund.

Course Assessment

- 10% homework (completeness)
- 10% weekly quizzes
- 5% group work
- 45% three midterms (15% each)
- 30% final

Letter grades will be assigned based on the scale: A 93–100, A- 90–92, B+ 86–89, B 82–85, B- 78–81, C+ 74–77, C 70–73. These scales may be adjusted to be more generous at my discretion.

Homework: Homework is due by 8:00am on Wednesdays. Assignments will be posted on Canvas at least a week in advance. Homework will be submitted on Canvas as a PDF.

You must write your own homework solutions in your own words. You must give credit to any person or source who helped you understand the answer.

Homework will be graded based on completeness and effort.

Weekly quizzes: On most Wednesdays, class will begin with a 10-minute quiz, based on similar material to the homework due the same day. The quizzes will be taken without any books, notes, or electronic devices.

Group work: Group work will be done in class, in collaboration with other students in class, possibly unannounced. You will be graded on effort.

Exams: The midterms and final must be taken without any books, notes, or electronic devices. The midterms will cover material since the previous midterm. The final will be cumulative.

Make up Policy

Late homework will generally not be graded or counted for credit, and there will be no make-up quizzes. Instead, I will drop the lowest homework grade, the lowest group work grade, and the two lowest quiz grades.

Missed exams will be excused only in the case of serious problems which unavoidably prevent you from taking the exam, such as a medical or family emergency. All excuses must be documented, to be approved by the Dean of Students. Accommodation is at my discretion and may take the form of a make-up exam or by having the final exam replace that component of your grade. Please let me know as soon as possible if you will miss an exam.

How to be Successful in this Course

Every day: Come to class. Do the homework. Look at the book, either before or after class. Look over your own notes. Start the homework early. Work on the problems yourself before getting help.

Quizzes and exams: Look over your quizzes and exams after they've been graded. Look at the solutions. Use them to understand what you did wrong. This is how you find out what you've been doing wrong and improve your work. If you are struggling, get help sooner rather than later.

Where to get help: If you need help, come to office hours. Connect with other people in the class. Look at resources on the Internet.

Course Outline and Schedule

- Fri, Sep 23: midterm 1
- Fri, Oct 21: midterm 2
- Fri, Nov 18: midterm 3
- Wed, Dec. 14 1-3pm: final

We will cover the main topics in Chapters 1-5 of the textbook. The approximate schedule of daily topics is listed on the Canvas page "Daily schedule."

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.