

**Math 22A: Linear Algebra (Section 2)**  
**Fall Quarter 2022 at UC Davis**  
**MWF 4:10-5:00pm**  
**Young Hall, Room 198**

**Instructor:** Cooper Jacob  
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### **General Information.**

#### **Course webpage:**

All course information, class announcements, homework assignments, lecture slides, exam solutions, etc. will be posted on Canvas (<https://login.canvas.ucdavis.edu>). Please set your notification preferences for Canvas to “notify me right away” for all announcements etc. for this class, so that you receive important information in a timely manner. We will be using Gradescope, linked via Canvas, for homework assignment submission.

#### **Textbook:**

We will be using the **11th edition of *Elementary Linear Algebra* by Howard Anton and Chris Rorres**. My lectures will be following the organization of this textbook. Homework problems from this textbook will be posted on Canvas. If you prefer to use a different edition of this textbook, you are welcome to do so; however, please note that the homework problems will be different between different editions of the textbook, and you are required to do the problems corresponding to the 11th edition. I highly recommend you read the applicable section of the textbook before coming to lecture. This will help you to better understand the material covered in lecture, and will give you the opportunity to ask questions about what you have read during lecture.

#### **Office Hours:**

I will hold office hours weekly (time to be determined, and will be announced via Canvas). Some of my office hours will be held in-person, and some will be held remotely via Zoom. The TAs for this class will also hold office hours. You are also welcome to email me or the TAs if you have questions.

#### **Piazza:**

We will be using the online discussion forum Piazza. You can access our class forum via the Piazza tab on Canvas, or by going directly to their webpage, <https://piazza.com>. Posting on Piazza is probably the fastest way to get a response to your question. This is a good way to practice written discussion of mathematics with your classmates. I also highly encourage you to answer your fellow students' posts whenever you can. Explaining mathematics to a fellow student is an excellent way to help you learn the material. The TAs and I will also be answering questions on Piazza, and I recommend that you post any questions you may have about the class to Piazza. You can post anonymously to your fellow students if you choose, but you cannot post anonymously to the instructor. If you have a question about something, chances are at least one of your classmates does as well; so, posting your question on Piazza helps everyone (and improves efficiency, since responding to multiple emails regarding the same question will delay overall response time from your instructor and TAs).

#### **Lecture Slides:**

Lecture slides will be posted on Canvas after lectures. If you have any questions about the material covered in the lecture slides, please post them on the class Piazza page. Please note that **lectures will not be recorded**.

### **Exams and Grading.**

#### **Assignment Percentages:**

15% Homework (10 assignments, lowest 2 will be dropped, due **Mondays at 10:00pm** on Gradescope)  
25% Midterm 1 (**October 21st**, in class)  
25% Midterm 2 (**November 18th**, in class)  
35% Final Exam (**December 5th**, 10:30am-12:30pm)

**Please see the Calendar file for a visual outline of when assignments are due.**

### **Homework:**

- There will be 10 homework assignments.
- Your lowest 2 homework scores will be dropped.
- Homework assignments are due on **Mondays at 10:00pm**. You will be uploading your completed assignments to Gradescope via Canvas.
- **No late homework assignments will be accepted.**
- Please see the Homework Assignments file for a complete list of all homework assignments. Homework Problems will be posted in a separate file. All homework problems are from the **11th edition of *Elementary Linear Algebra* by Howard Anton and Chris Rorres**.
- Each weekly homework assignment contains multiple problems, typically from a few different sections of the textbook. You are required to complete all assigned problems; however, you will only be submitting two problems per week to Gradescope. The two problems which you are required to submit for each assignment are specified in the Homework Assignments file. Your homework grade each week will be based only on your submitted work for these two problems.
- Final answers to all of the assigned problems will be posted. Detailed solutions will only be posted for the two problems which are to be submitted. These solutions will be written up by your TAs and will be available after grades are released for the submitted problems.
- Your homework will be graded on the completeness and correctness of your work, not just the correctness of your final answer. If in doubt, include more steps in your work, and more detail in your explanations. One suggestion I like to give when students ask about how much detail to include in their work is to think about how you would show a friend, who has taken all classes up to but not including this one, how to solve this problem.
- I am aware that there is a student solutions manual available for our class textbook. If you choose to purchase the solutions manual, please be aware of the following:
  - Submitted homework solutions which are simply copied from the solutions manual will receive no credit (score of zero).
  - If you rely on the solutions manual to tell you what the next step is when solving a problem, then you will not learn the material, because you will not learn the process and you will not learn how to problem-solve when you get stuck. It is a bad idea to look at the solutions manual while trying to solve a problem.
  - For problems other than the two problems each week which will be graded, you are welcome to check your work after (and only after!) completing the entire problem to see if you solved it correctly. I've found that when students check their own work after completely finishing a problem, they actually learn more from the process of determining whether or not they made a mistake (sometimes there are errors in the solutions manual!) and finding what kind of mistakes they commonly make so that they can try to avoid making them again in future.
- For the homework problems which are not to be submitted, you should still write each problem out in detail in your notebook, to practice properly writing mathematics. Exam problems will be graded on the clarity of your work.
- You are of course welcome to ask me and the TAs questions about any of the assigned homework problems, as well as about any other (unassigned) homework problems you may choose to do as extra practice.

### **Midterms and Final Exam:**

- There will be two midterms and a final exam for this class. (Exam dates are given above and are also available in the Calendar file.)
- Exams are closed-book and closed-notes. No note-cards are allowed. No calculators or other electronic devices are allowed.
- A formula sheet with some but not all formulas from the material covered prior to the exam will be provided with the exam (and will be posted on Canvas prior to the exam so that you know which formulas you will be provided with).
- **Exams will be cumulative** (as is the nature of mathematics).
- **There will be no make-up exams.** If you must miss a midterm due to illness, you will need to contact me ASAP with proof; in this case, your final exam will be worth 60% of your grade.
- You are required to show all of your work on exams. Exam problems are graded on the completeness and clarity of your work as well as the correctness of your final answer. All work must be done on the exam. Scratch paper will not be graded.
- You will be required to sign an academic integrity statement on your exam.
- I will post on Canvas a list of some common student errors that result in loss of points on exams, including incorrect use of notation.

**(OPTIONAL) Technology Assignment:**

There will be a (completely optional) technology assignment, due on Monday, September 26 at 10:00pm, on Gradescope. This assignment will not count towards your final grade. It is designed to help you familiarize yourself with the process of scanning and uploading a PDF submission to Gradescope via Canvas, if you are unfamiliar with this process. Instructions for this assignment will be posted under the “Files” section on the Canvas page for this course.

**Classroom Policies.****COVID-19 Policy and Masks (IMPORTANT, please read):**

- If you feel sick or otherwise unwell, please do not come to class. Lecture slides will be posted on Canvas, and you are welcome to ask questions about material from the textbook and lecture slides on Piazza, via email, etc.
- We will of course be following county and school mask mandates, so when wearing masks is required by Yolo County and/or UC Davis you will be required to wear masks in the classroom and during office hours.
- **I strongly suggest wearing a mask indoors at all times**, to respect everyone's health and safety, especially our disabled and/or immunocompromised community members. I will be wearing a mask at all times, and I hope that all of you will wear a mask during lecture and when coming to office hours.

**Classroom Conduct:**

Please be respectful of your classmates and your instructors. Please do not talk amongst yourselves during lecture. Please turn off or silence your cell phones etc. during class. Please do not use any electronic video or sound recording devices in class. You are welcome to use your tablet/laptop/etc. to take written notes.

**Academic Integrity:**

You will be required to sign an academic integrity statement on each midterm exam and on the final exam. Any evidence of cheating on an exam will result in a score of zero and will be reported to Student Judicial Affairs, which may administer additional punishment. Cheating includes, but is not limited to, bringing notes or written or electronic materials into an exam, copying off of another person's exam, allowing someone to copy off of your exam, and having someone take an exam for you.

**Students with SDC accommodations:**

Please let me know right away if you will need accommodations for any physical, psychological, or learning disability. Please also make sure that the SDC office has sent me your accommodation letter.

**Copyright Statement:**

My lectures and course materials, including lecture slides, note-sheets, exams, class handouts, and similar materials, are protected by U.S. copyright law and by University policy. I am the exclusive owner of the copyright for those materials I create. You may take notes and make copies of course materials for your own use. You may also share those materials with another student who is enrolled in this course. You may not reproduce, distribute or display (post/upload) lecture notes or other course materials in any other way, whether or not a fee is charged, without my express prior written consent. You also may not allow others to do so. If you do so, you may be subject to student conduct proceedings under the UC Davis Code of Academic Conduct.