

# Math 54-001 - Linear Algebra And Differential Equations

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We have a very simple yet strict "**no (need for) excuses**" policy: Everyone has a 20% "no fault" allowance for missing assignments - with no questions asked. Specific rules for each assignment type are given below.

## READING AND LECTURES

Reading references are listed in the syllabus with the lecture in which the topic is covered. **Giving the book at least a diagonal read before lecture is highly recommended and will greatly contribute to your understanding.** Attending lectures is also highly recommended but not mandatory. [Webcasts of lectures](#) will be made available - though timeliness, quality, and reliability cannot be guaranteed (by anyone other than [ETS](#)). Slides and scribbles from the lectures will be posted on the [Piazza forum](#) but should not be viewed as full lecture notes. (However, topics that are not mentioned on the slides are rather unlikely to appear on exams.)

## DISCUSSION SECTIONS, PRACTICE PROBLEMS, AND QUIZZES

Suggested practice problems are listed in the syllabus with the section in which this material will get discussed. During most discussion sections, there will be a **5-10min check-in seat work** in which you are asked to individually answer a question directly from the reading and lecture (preceding the section), or practice problems (listed for the section). **This seat work is designed to give you a quick measure of your understanding and opportunity to clarify confusions. It is an effort-based contribution to your discussion grade - i.e. you get full credit for any serious attempt that is based on significant exposure to the material, in particular if you identify where you are stuck/confused in a way that provides a constructive question for the subsequent discussion. Note that the effort doesn't stop with handing in the check-in, but continues with your active participation to the end of the section.** (If you feel that attending sections is a waste of your time - see below.) You can miss 20% of all check-ins (ca. 5 of 25) with no need for excuses and no deduction to your grade.

On most Mondays, there will be a **20min quiz** instead of the check-in, on standard problems from the material of the previous week(s), as listed in the syllabus. These quizzes will be graded for correctness (see below for our standard grading practices), and the two lowest scores are dropped. This means in particular that you can miss two quizzes with no need for an excuse.

*Note that this eliminates homework deadlines, grading, and the resulting delays between material being covered, problems being worked, and discussion of solutions. Instead, you will have direct benefits from staying current by attempting the practice problems right after the corresponding lecture, and clarifying your understanding right in the following section. Don't worry if you weren't able to solve much - getting you unstuck is exactly what the discussion section is there for. However, **the sections are not meant to be used as starting point for exposure to material, so make sure that you have reached some understanding (of the material or your confusions) before coming to section.** The practice problems are meant to be solved before the corresponding quiz, since most quiz problems will be very similar. This also eliminates mindless grading for your GSI; instead they can concentrate on giving you detailed feedback on your quiz solutions. Also, feel free to ask them to look over your writeup of other practice problems if you are unsure of your methods or writing style.*

*If you are one of the few for whom most of this material is a breeze (e.g. because you took Linear Algebra before), please view the discussion sections as your opportunity to hone your communication skills by helping other students. If, however, attending sections conflicts with other demands on your time and energy, and you can deliver convincing arguments to your GSI that you will require neither the study help nor the effort-based grade bonus provided by attending the section, they may allow you to miss all but the quizzes. Such an agreement needs to be documented in writing and replaces the check-in grades after that date by your corresponding quiz scores.*

## EXAMS

There will be two midterms and a final. Due to scheduling constraints it is not possible to give makeup exams. However, you can miss one midterm, for whatever reason, without need to communicate an excuse. Missed midterms are recorded with score 0, but then everyone's lower midterm score is replaced by the final score - if that is higher. So there is no penalty but also no benefit in missing one midterm. On the other hand, missing both midterms or the final will seriously harm your grade and make it very difficult to pass the course. **So please check the exam dates on the syllabus before committing to this course to make sure that you have no unavoidable conflicts!**

**All exams and quizzes are "closed book" and do not allow for (or require) materials other than pen and paper.** If you learn the material properly, then you should not have to memorize a lot of rules or formulas, and there will be no use for calculators.

*To obtain full credit for an exam question, you must obtain the correct answer, put a box around it, and give a correct and readable derivation or justification of the answer. Unjustified correct answers will be regarded very suspiciously and will receive little or no credit. The graders are looking for demonstration that you understand the material. To maximize credit, cross out any work that does not justify your answer. However, if you determine that your solution is wrong but can't fix it, you can get partial credit for explaining what you were trying to do, and how you know that your result is wrong.*

Exam or quiz grades cannot be changed except for egregious errors such as incorrect addition. (Please check as soon as you get your exam back. Due to previous cheating attempts, your GSI is only allowed to correct errors that are reported within the same section meeting.) If you don't understand why you lost points on a question, please ask for clarification. However, the point score cannot be changed since all exams are graded by a fixed scheme, so that regrading individual exams would be unfair to everyone else.

## GRADES

Your GSI will determine discussion scores from 50% check-ins and 50% quizzes. These grades will be renormalized to adjust for different quiz difficulties and grading standards between the sections. Your course grade will then be determined from the weighted average of 30% discussion (i.e. 15% effort and 15% quizzes), 15% for each midterm, 40% final. Here the lower midterm score (in particular if you missed it) will be replaced by the final score if that is higher. If you miss both midterms, then one counts with score 0. If you miss the final, it counts with score 0, unless you provide sufficient evidence for an incomplete grade.

Letter grades will be determined on an absolute scale of 100-85% A, 84-70% B, 69-55% C, 54-0% D/F unless comparison with previous/parallel exams and grade distributions warrant an adjustment in your favour.

*Note that you can earn 15% by pure effort in the discussion section. Also be aware that the first midterm (due to its date before the drop deadline) will test only basic linear algebra material that may already be familiar and is significantly easier than the rest of the course. Similarly, the second midterm is scheduled so that it can test the most basic differential equation material. So the purpose of part of the quizzes will be to train you in dealing with the harder material or more conceptual questions. You should also view both quizzes and check-in seat work as training in dealing with stress and time pressure, and writing well structured solutions. The final is likely to be very hard - due to an emphasis on the more advanced and conceptual material - and also since even those 3 hours should contribute to your learning. So be prepared to bring your full thinking capacity (in particular practice doing hard math at 8am); rest assured that the graders will be aware of the level of difficulty; but don't plan to use the final as make up for missed points during the semester.*

## EXCUSES

We expect that the 20% no fault allowance (detailed above) will cover all but the most extreme circumstances. Differently put: Reliably meeting 80% of a given set of expectations, despite unforeseen circumstances, is a professional skill that your instructors will demonstrate (hopefully very close to 100%) and that - if you don't already have it - is a core goal for this course. If you can foresee possibly having to miss more than 20%, consider the question whether you might not benefit from learning the material at another time.

If you do want/need to pursue the course despite missing over 20% of assignments, you will need to contact your GSI with detailed written evidence of your exceptional circumstances (e.g. a doctor's note that explicitly excuses missed assignments listed with dates). In such cases, assignments would usually be made up for by oral exams or using the score of the final exam.

**Incomplete grades** will, according to university policy, only be given if unanticipated events beyond your control make it impossible for you to complete the course, and if you were otherwise passing (with a C or above). In such cases, contact your GSI as soon as possible after the events, and arrange for detailed written evidence. To make up an incomplete, one ordinarily takes the final exam for another Math 54 class, taught by a different instructor, at the end of the subsequent semester.

## ACCOMMODATIONS

Students requiring accommodations for exams must arrange for the Disabled Students Program (DSP) to send a "letter of accommodation" to the instructor (not GSI) **at least one week before the deadline by the DSP, i.e. three weeks before an exam and by Oct 24 for the final**. Due to delays in processing, we recommend contacting the DSP office before the start of the semester.

## STUDY HELP AND TUTORING

The [Student Learning Center](#) offers **study groups, reviews, and drop-in tutoring** for this course. It also offers [online study and success strategies](#) and [individual appointments for students experiencing academic difficulty](#). The mathematics department has a list of [private tutors and further resources](#). *We also encourage you to use the forum to ask for help, form working groups, and share other resources.*

## HONOR CODE

The student community at UC Berkeley has adopted the following Honor Code: *"As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others."* The hope and expectation is that you will adhere to this code, in particular:

**Cheating:** A good lifetime strategy is always to act in such a way that no one would ever imagine that you would even consider cheating. Anyone caught cheating on a quiz or exam in this course will receive a failing grade in the course and will also be reported to the University Center for Student Conduct. In order to guarantee that you are not suspected of cheating, please keep your eyes on your own materials and do not converse with others during the quizzes and exams.

**Academic Integrity and Ethics:** Cheating on exams is one common example of dishonest, unethical behavior. Honesty and integrity are of great importance in all facets of life. They help to build a sense of self-confidence, and are key to building trust within relationships, whether personal or professional. There is no tolerance for dishonesty in the academic world, for it undermines what we are dedicated to doing – furthering knowledge for the benefit of humanity. Your experience as a student at UC Berkeley is hopefully fueled by passion for learning and replete with fulfilling activities. And we also appreciate that being a student can be stressful. There may be times when there is temptation to engage in some kind of cheating in order to improve a grade or otherwise advance your career. This could be as blatant as having someone else sit for you in an exam, or submitting a written assignment that has been copied from another source. And it could be as subtle as glancing at a fellow student's exam when you are unsure of an answer to a question and are looking for some confirmation. One might do any of these things and potentially not get caught. However, if you cheat, no matter how much you may have learned in this class, you have failed to learn perhaps the most important lesson of all.

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