

Syllabus

Math 225 (Spring 2024)

Linear Algebra and Differential Equations

The content of this syllabus is subject to change.

Lecture	MWF 11–11:50am @ SOS B44	MWF 9–9:50am @ DMC 102
Course ID:	39534D	39557R
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Instructor:	Christian Geske (geske@usc.edu) (Office: KAP 244A)	

Prerequisites

Math 126 or Math 127 or Math 129. Comfort with differentiation and integration will be essential especially as we enter the section of the course on differential equations.

Informal prerequisite: algebra is an essential ingredient to the problems and concepts encountered in this course. Essential skills include: comfort with basic arithmetic; facility with exponents, and radicals; the ability to solve equations using a variety of techniques; facility with functions, function notation, and graphs.

Course Content

For a detailed description of course content, please see the Daily Schedule in the Content Tab.

Course Materials

Differential Equations and Linear Algebra (4th edition) by Goode & Anin.

The primary use of the textbook will be as a source of homework problems.

Exams

	Time and Place (11am Lecture)	Time and Place (9am Lecture)
Midterm 1	Mon Feb 12 @ usual classtime @ TBA	Mon Feb 12 @ usual classtime @ TBA
Midterm 2	Mon Mar 25 @ usual classtime @ TBA	Mon Mar 25 @ usual classtime @ TBA
Midterm 3	Mon Apr 22 @ usual classtime @TBA	Mon Apr 22 @ usual classtime @TBA
Final Exam	Wed May 1 @ 11am–1pm @ TBA	Fri May 3 @ 8–10am @ TBA

No Makeup Exams.

Midterms. Midterms are not cumulative. Accommodations for time conflicts for midterms will generally not be granted, except for a very limited number of reasons, including participating in a USC athletic competition. To request an accommodation for a time conflict, you must contact the instructor at least two weeks before the scheduled examination.

Final Exam. This will be a cumulative exam. It is university policy that no student may take this exam early or be allowed to skip it.

Guidelines. You will not be allowed to use: books, phones, computers, tablets, or calculators. On the midterms you will be allowed to use both sides of a standard index card. On the final exam you will be allowed to use both sides of a single sheet of a paper. No other notes will be allowed.

Re-Score Requests. If you think that a problem on your exam was scored incorrectly, then you may consider requesting that your problem be re-scored. A request must be made to the instructor within 72 hours after you have received your exam. Your problem will be regraded from scratch, and the new score will be final.

Homework

Homework will be assigned through Blackboard in the Homework tab. It will be due every week on Friday @ 11:59pm through Gradescope unless otherwise specified. Gradescope (accessible through the Blackboard sidebar) is an online platform to which you can submit scanned work and later see comments and scores from the grader.

Grading. 12 points total. 3 select problems will be graded at 3 points each. 2 points will be assigned for attempting the remaining problems. 1 point will be assigned for meeting the homework guidelines detailed in the next section.

Extensions. You will be allowed 3 24-hour extensions on assignments. To receive a 24-hour extension, you must email a request to your instructor. No other extensions will be granted. Beyond this allowance late homework will not be accepted.

Drops. The lowest 3 homework scores will be dropped.

Homework Guidelines

Although we encourage you to discuss the homework with your peers, you must write your own

solutions to the problems. If in doubt, you should be able to explain the details of your thought process if requested.

You must show your work. You will not receive credit for final answers without work.

Write legibly. You may not receive credit for work that is illegible or unintelligible.

Ensure your submissions are properly oriented (e.g. not sideways).

Use the Gradescope feature that attaches problems to pages in your submission as shown in this [link](#).

Quizzes

You will have weekly in-person quizzes on Tuesdays in discussion section. Quizzes will be 15–20 minutes each. They will cover the same topics that are covered on the homework of the same number.

Guidelines. You will not be allowed to use: books, notes, phones, computers, tablets, or calculators.

Drops. Your lowest 2 quiz scores will be dropped. This is to account for any reason you may miss a quiz. Beyond the retakes discussed below there are no other opportunities to make up quizzes. If you anticipate that you will miss a quiz before it occurs, it will typically be possible to take the quiz a day or so early if you email your teaching assistant, but it will not be possible to take the quiz after it occurs.

3 Retakes. In the discussion section after each midterm you will be allowed to a retake a single (modified) quiz among the group of quizzes whose content is covered on that midterm.

Discussion Section

Attending and participating in discussion section is essential for success in the course.

In discussion section you will have the opportunity to work through additional problems with the help of the TAs. This will also be an opportunity for you to received help on the homework from your TA. You will also take your quizzes in discussion section.

Grading Policy

Your overall grade for the course is determined by your homework scores, quiz scores, and exam scores. Final percentages will be given by the maximum of the following three calculations.

	Calculation 1	Calculation 2
HW	15%	15%
Quizzes	10%	10%
Midterms	15% for each of the 3 midterms	lowest midterm dropped and 20% for each of the remaining 2 midterms
Final Exam	30%	35%

Class Recording

Lectures will be recorded regularly and those lectures posted on Blackboard. You can access these through the `USC Zoom Pro Meeting' tab from the Blackboard sidebar.

Extra Credit

There is one extra credit service opportunity for this course, [JEP](#) (Joint Educational Project). Satisfactory completion receives one 1/3 grade credit (e.g. A- to A). No other extra credit will be approved.

Academic Support

Office Hours

These are an essential resource that often go underutilized. We encourage you to attend them to receive help on any aspect of the course. Instead of struggling endlessly on your own with a particular problem or concept, save some time and stop on by!

Math Center

The USC Math Center (KAP 263) is a place to go if you want help with your math classes. Please visit the Math Center [website](#) for more information

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Course Content Distribution and Recording Policies

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS)

accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Students and Disability Accommodations

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

