



Math 21, Summer Session 2, 2018

Linear Algebra

Mon Wed, 9:00am - 12:30pm, PhysSciences 130

Andres Perico

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Office: McHenry 1292

Office Hours: Mon/Wed 1pm-2pm

I might make slight updates to the syllabus during the course. Please check canvas and your email for any updates.

**Course Description:** Starting with basic definitions and calculations that include systems of linear equations, the vector space  $\mathcal{R}^n$  and matrix algebras, we will construct our way towards the applications of concepts like determinants, eigenvectors, and eigenvalues.

**Credits:** 5 units

**Prerequisite(s):** One of the following: Math 11A, Math 19A, Math 20A, AMS 11A, or AMS15A. Prerequisites waived for non-UCSC students.

**Text:** *Introduction to Linear Algebra, Fourth Edition*

**Author:** Gilbert Strang

**ISBN:** 9780980232714

**Secondary text:** *Elementary Linear Algebra an etext, 4<sup>th</sup> Edition*

**Author:** Bruce Cooperstein

**ISBN:** 9780988557208

**Important dates:**

Drop: Monday, August 6

Withdraw: Friday, August 18

Neither Summer Session nor instructors drop students for non-attendance or non-payment. Students must drop themselves. Dropping results in full tuition reversal/refund. Withdraw posts a W for the grade and full tuition is charged (no refund).

**Grade Distribution:**

Quizzes (x3)	30%
Homework	20%
Final Exam	50%

**Homework:** Will be posted in Canvas every week (due every Wednesday starting the second week).

**Final:** A cumulative final exam will be held on the last day of class, Wednesday August 28.

**LSS:**

Tutor: Ian McGovern

Hours: M 2pm, W 2pm, Th 1pm.

Where: ARC

Email: imcgover@ucsc.edu

**DRC Accommodations:**

The Disability Resources Center reduces barriers to inclusion and full participation for students with disabilities by providing support to individually determine reasonable academic accommodations. If you have questions or concerns about exam accommodations, or any other disability-related matter, please contact the DRC office, located in Hahn 125 or at 831-459-2089 or drc@ucsc.edu.

**Tutoring:**

If you would like to hire a tutor for this class and you're not sure how to find one, you are welcome to ask me for recommendations and I will put you in contact with good tutors I know. Additionally, a list of tutors is supplied by the Math Department at:

<https://www.math.ucsc.edu/undergraduate/advising-resources-tools-forms/tutor-list.html>.

**Late Policy:** I do not accept late homework in any circumstances.

**Make up Quizzes/Exam:** "Make-up" quizzes/exams must be approved and arranged in advance. Absences from exams due to illness or personal crisis must be adequately documented.

**Academic Dishonesty**

Academic integrity is the cornerstone of a university education. Academic dishonesty diminishes the university as an institution and all members of the university community. It tarnishes the value of a UCSC degree. All members of the UCSC community have an explicit responsibility to foster an environment of trust, honesty, fairness, respect, and responsibility. All members of the university community are expected to present as their original work only that which is truly their own. All members of the community are expected to report observed instances of cheating, plagiarism, and other forms of academic dishonesty in order to ensure that the integrity of scholarship is valued and preserved at UCSC. In the event a student is found in violation of the UCSC Academic Integrity policy, he or she may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of his or her college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript. For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the Academic Integrity page at the Division of Undergraduate Education.

**Title IX:**

The university cherishes the free and open exchange of ideas and enlargement of knowledge. To maintain this freedom and openness requires objectivity, mutual trust, and confidence; it requires the absence of coercion, intimidation, or exploitation. The principal responsibility for maintaining these conditions must rest upon those members of the university community who exercise most authority and leadership: faculty, managers, and supervisors. The university has therefore instituted a number of measures designed to protect its community from sex discrimination, sexual

harassment, sexual violence, and other related prohibited conduct. Information about the Title IX Office, the online reporting link, applicable campus resources, reporting responsibilities, the UC Policy on Sexual Violence and Sexual Harassment and the UC Santa Cruz Procedures for Reporting and Responding to Reports of Sexual Violence and Sexual Harassment can be found at [titleix.ucsc.edu](http://titleix.ucsc.edu). The Title IX/Sexual Harassment Office is located at 105 Kerr Hall. In addition to the online reporting option, you can contact the Title IX Office by calling 831-459-2462.

**Tentative Course Outline:**

The topic coverage might change as it depends on the progress of the class. If you are using other textbook, let me know I'll give you the correspondent sections.

Date	Topics covered
07/30	<ul style="list-style-type: none"> <li>• 1.1-2.3</li> <li>• 2.3-2.5</li> </ul>
08/01	<ul style="list-style-type: none"> <li>• 2.6-2.7</li> <li>• 3.1-3.2</li> </ul>
08/06	<ul style="list-style-type: none"> <li>• 3.3</li> <li>• 3.4</li> </ul>
08/08	<ul style="list-style-type: none"> <li>• 3.5-3.6</li> <li>• 8.2</li> </ul>
08/13	<ul style="list-style-type: none"> <li>• 4.1-4.2</li> <li>• 4.3</li> </ul>
08/15	<ul style="list-style-type: none"> <li>• 4.4</li> <li>• 5.1-5.3</li> </ul>
08/20	<ul style="list-style-type: none"> <li>• 6.1</li> <li>• 6.2, 8.3</li> </ul>
08/22	<ul style="list-style-type: none"> <li>• 6.3 - 6.5</li> <li>• 8.1</li> </ul>
08/27	<ul style="list-style-type: none"> <li>• 6.6-6.7</li> <li>• 7.1-7.3, 8.4</li> </ul>
08/29	<ul style="list-style-type: none"> <li>• Final Exam</li> </ul>

**Some tips for the course:**

- Read the sections to be covered in lecture before you come to lecture.
- If you are stuck in some problem, work through the examples in the text first.
- Form a study group and meet regularly.
- Keep up with the schedule.
- Attend all lectures and discussion sections where you can get your questions answered.
- If something is unclear attend office hours.
- Use LSS for additional help.

**Grading Scale** The grading scale for the class will be **approximately:**

- A+:97%-100%,
- A :93%-96%,
- A-:90%-92%,
- B+:87%-89%,
- B :83%-86%,
- B-:80%-82%,
- C+:76%-79%,
- C :70%-75%,
- D :60%-69%,
- F :0%-59%.

Letter grade boundaries may be lowered at my discretion in order to eliminate some borderline cases.