Linear Algebra
MATH D002B, Spring 2026
De Anza College

COURSE MEETINGS

Section 16: Tue & Thur 1:30-3:45PM, MLC108
Section 20: Tue & Thur 4:00-6:15PM, MLC260

INSTRUCTOR

Jakob Kotas, PhD
Email: kotasjakob@fhda.edu
Office hours:
- Tue & Thur 12:00-1:00PM in S76a
- Wed 1:00PM-2:20PM on Zoom*, link: `https://fhda-edu.zoom.us/j/4478579404`

*If you join the Zoom link and find yourself in the waiting room, please be patient; I will let students in in the order they arrive.

Office hours are on a drop-in basis with no appointment needed. Please come see me if you have questions or concerns. I'm here to help.

COMMUNICATION

Receiving communication from the instructor:
- All messages sent to the whole class will be visible in the "Announcements" tab in Canvas.
- Messages sent to individual students will be sent to your Canvas inbox.
- Make sure your Canvas announcement, discussion, and conversation notifications are set to "notify immediately." Consider downloading the Canvas app if possible to receive notifications.

Sending communication to the instructor:
- Content-related questions, homework questions, etc. should be posted in the "Discussions" tab in Canvas. You may post anonymously if you wish. Both I and your peers may respond.
- Email (or Canvas inbox, both go to the same place). Expect a response within 1-2 business days. Content-related questions, homework questions, etc. will not be answered via email; those should be posted in the "Discussions" tab in Canvas. Use email for grade-related questions, personal or confidential issues, etc.

TEXTBOOK AND REQUIRED MATERIALS

Textbooks:
- Primary: Bambhania, Yarahmadi, and Wilson: *Linear Algebra: A First Course*. Available for free online at:
  `https://math.libretexts.org/Courses/De_Anza_College/Linear_Algebra%3A_A_First_Course`
- Secondary: Lay, Lay, McDonald: *Linear Algebra and Its Applications*.

We will mostly follow the order of sections in the free Bambhania book, and it is not necessary to purchase the Lay book. Both textbooks will be used as a reference and readings will not be directly assigned. The textbook sections corresponding to each class day are clearly shown on the quarter schedule linked from Canvas. Students are encouraged to review the textbook sections covered each day on their own after class as needed to reinforce concepts. The Lay book is longer, and in general more detailed and has more examples. If you just want to review general sections we've covered you can use the free Bambhania book. If you miss a class and/or want more thorough explanations, I recommend the Lay book.

Required materials: computer with internet to access Canvas and complete homework assignments.

We will use basic Python for some calculations, specifically the NumPy, SciPy, and MatPlotLib libraries.

Coding experience is not expected and I will provide demonstrations and template codes. There are also a wide range of free matrix calculator apps out there, but beware some of them are limited in functionality.

PREREQUISITES
Mathematics 1D with a grade of C or better.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

WEBPAGES
Online course materials can be found at or linked from the course webpage on Canvas: `deanza.instructure.com`

All homework assignments are viewed and completed in MyOpenMath: `www.myopenmath.com`. Directions for first login are given below in the homework policy.

ATTENDANCE POLICY
Students are expected to attend every class session and attendance will be taken every day. Many studies have shown that engaging in active thinking is more effective to your learning than exclusively passively listening. Hence, during class time there will be in-class group work and problem-solving activities.

Each student is granted two excused absences to account for illness, emergency, etc. If you must miss a (non-exam) class day, you do not need my permission in advance but please do send me a message to keep me informed; you will then be responsible for catching up on the missed material on your own. Section(s) covered are posted on the quarter schedule, linked from the front page on Canvas. You should read the corresponding sections of the book and any announcements or course materials posted. Absences beyond the two excused absences will begin to reduce the portion of your grade devoted to group work check-ins. The instructor reserves the right to grant additional excused absences due to extenuating circumstances, but you must communicate with me.

Absences on exam days and deadline extensions due to illness, emergency, etc. are explained in the exam policy and homework policy sections.

Students who do not attend the first class day without prior communication will be dropped. After that, students will not be automatically dropped for non-attendance. Although I do reserve the right to drop students for non-attendance, it is the student's responsibility to officially drop or withdraw from the course. If you fail to do so and your name appears on the final roster, you will receive an F for the term. Do not assume that I will drop you if you stop coming to class.

HOMEWORK POLICY
All homework assignments are viewed and completed in MyOpenMath: `www.myopenmath.com`.

Most problems are graded for correctness. MyOpenMath will give you immediate feedback as to whether your answer is correct or incorrect. You have a limited number of tries, generally 3, for a given problem randomization. If you still haven't gotten credit, you can get a similar problem which is of a similar type but may have small differences, where you get 3 tries again. The number of tries per randomization, and number of remaining similar random problems, is displayed.

Some problems may ask you for a short written response, which are not graded for correctness. The system will automatically give you credit for anything you write. I reserve the right to go in and manually grade these problems and mark you down if an answer is missing or incorrect. I won't do this for every problem,

but I also won't announce in advance which problems I will grade manually, if any.

Once all the manual grading is done and all late pass deadlines have passed, I will manually import the grades into Canvas, after which they are final. The importing step is not automatic. If you don't see a grade in Canvas yet even though the assignment due date has passed, it means I haven't imported them yet, so please be patient.

First-time login instructions: Click "Register as a new student" and create a login. Make sure first and last name match your name in your De Anza MyPortal so that I can import your grades to Canvas correctly.
Course ID: 322316
Enrollment Key: 101460

Deadlines and submission process: Homework assignments are typically due on Sundays at 11:59PM, unless specified otherwise in Canvas. Assignments will become visible no fewer than 5 days before the due date. Your answers are submitted on the website within the browser window. Make sure to expand all menus as assignments are contained within the collapsed menus.

Suggestions for success: Keep an organized notebook for yourself where you clearly show the steps for each problem, even though you won't turn it in. It will be helpful later when studying for exams, where you will be graded based upon the clarity of your work. It's also easier to get help from others if you can show step-by-step work, so that others can pinpoint the issue.

Start the homework as soon as it becomes available and work on it a little bit each day. Don't wait until the day the homework is due to begin it. The human brain requires time for concepts to sink in. In many cases "sleeping on it" solves your problems but you rob yourself of that ability if you wait until the due date.

Collaboration: Collaboration on homeworks is encouraged, but every student must submit their own assignment consisting of their own work. Assignments are demanding, and you are encouraged to start them as early as possible.

If posting for help in a Canvas discussion, do not include your final answer or entire step-by-step solution so that other students may copy it. It's OK to include a small bit of work (a few lines) if you have a question about that specific piece of your steps. If you need to display your entire work, come to office hours.

Do not publicly post homework solutions on the internet. If you are found to have done so, this will be treated as a plagiarism incident.

AI: AI is a powerful tool that can augment your learning if used responsibly. You may use AI for general questions, not specific ones. For example, asking AI to explain a specific theorem or generate extra practice problems of a specific type is acceptable. Copy-pasting a homework question into AI and turning in its response as your own is not acceptable. If you are found to have used AI inappropriately, this will be treated as a plagiarism incident.

Point totals: Different homework assignments are worth different amounts of points as not all are the same length. At the end of the quarter, the total points across all assignments are used to calculate the grade, not an average of the grades for each assignment. In other words, longer assignments with more points are weighted more heavily than shorter assignments with fewer points.

Flexibility policy: Each student is granted two late passes. These late passes give you the ability to complete the assignment late, up to 48 hours past the original deadline, with no penalty. To use a late pass, click the button in MyOpenMath; you do not need to contact the instructor. An explanation of how to use

a late pass is explained in this video:
https://youtu.be/dpyP2_wEadI

The instructor reserves the right to grant additional late passes due to extenuating circumstances, but you must communicate with me.

In addition to late passes, 10% of the homework score is dropped at the end of the quarter. That means that you must earn 90% of all the points on all the assignments combined to get a perfect score. If you get below 90%, the score is out of 90%; for example, a student getting 85% of homework points would get a final score of $85/90 \approx 94.44\%$. A student getting above 90% just gets 100%; there is no extra credit. The 10% drop will happen at the end of the quarter; it will not show up in Canvas during the quarter (Canvas shows raw homework scores only).

EXAM POLICY

There will be 3 in-person midterm exams happening during a 60-minute portion of our normally scheduled class time. There will be an in-person final exam happening during the time assigned to our class during finals week. The dates are:

- Midterm 1: Tuesday, May 5, 2026
- Midterm 2: Tuesday, May 26, 2026
- Midterm 3: Tuesday, June 16, 2026
- Final exam for section 16: Tuesday, June 23, 2026, 1:45-3:45PM
- Final exam for section 20: Thursday, June 25, 2026, 4:00-6:00PM

Exact midterm dates shown above are tentative and will be confirmed at least a week beforehand via Canvas announcements. Midterm exams are NOT cumulative; precise coverage of each exam will be given via Canvas announcements. Final exam date and time shown above are not tentative and the final exam happens in the same room as our normal class.

Rescheduling exams: Exams may not be rescheduled or taken remotely; plan travel accordingly. The final exam may not be taken early due to planned travel. If an unavoidable conflict or emergency should occur, contact the instructor immediately.

Rules: You may bring paper note sheets/notebooks to each exam. There is no limit on how much material you can bring but it must be on paper. I recommend that you condense any necessary formulas down to a reasonable number of pages so that you can more easily reference them on the exam, but I won't check your note sheets. Electronics, including laptops/computers, phones, calculators, and AI, are not allowed on the exams. I will keep calculations on exams simple as that is not the focus of our class. Collaboration with others during exams is not allowed.

Regrades: When a graded exam is returned, you should check over your exam and view the solutions promptly. If you believe an exam problem was graded incorrectly, please inform me as soon as possible. I may not accept regrade requests more than one week after a graded exam has been returned.

GROUP WORK CHECK-IN POLICY

During each class day, there will be a number of problems given and students will need to discuss and solve them in groups of 2 to 4. Each group will use markers or paper (depending on the classroom) to write out solutions including logical steps to get to the answer. One member of the group should be chosen by the group to take a clear picture of their group's solutions with a phone or device and turn it in on Canvas (not MyOpenMath). When submitting, make sure all students have joined the group (in Canvas, go to People, then the Groups tab, then join the appropriate group) before submitting work in order for all group members

to receive credit. Group work check-ins are due at the end of the class, plus a 5-minute grace period. A video on how to join a group is shown below.
`https://www.youtube.com/watch?v=dVZpbrP6agc`

All problems worked on in groups should clearly show work and steps to the final answer. The group work check-in picture will be graded on completion, not correctness. Showing the thought process is more important than getting the right final answer. The instructor may provide feedback on how to improve a solution. This is an opportunity to improve your skill at writing out your work before exams, where you will be graded on your work.

Students must be present in-person in class to receive credit for the group work check-in. Students must be in a group of 2 to 4 to receive credit for the group work check-in.

Each student is granted 2 excused group work check-in days as explained in the attendance policy above. On days a student is absent, no group work check-ins are needed nor allowed. If a student is present in class but does not turn in a group work check-in, they do not get credit. Missed group work check-ins cannot be made up. The instructor reserves the right to grant additional excused group work check-ins due to extenuating circumstances, but you must communicate with me.

GRADES

Component weights:
Homeworks: 20%
Midterm 1: 15%
Midterm 2: 15%
Midterm 3: 15%
Final exam: 30%
Group work check-ins: 5%

Letter grade thresholds:
A+: 97%
A: 93%
A–: 90%
B+: 87%
B: 83%
B–: 80%
C+: 75%
C: 70%
D: 60%
F or **FW:** below 60%
(The FW grade indicates that a student has stopped participating in a course after the last day to officially withdraw, without achieving a final passing grade, and the student has not received college authorization to withdraw under extenuating circumstances.)

Instructor reserves the right to lower the above thresholds for each letter grade after all grades are in for the quarter (that amounts to an upward curve to the grades). Any such increase would be small if anything at all, and will be explained in a Canvas announcement after the final exam. Do not rely on this policy saving your grade!

Grade changes will only be made for clerical errors and will not be changed for any other reason.

COLLEGE POLICIES

Important dates and deadlines:
https://www.deanza.edu/calendar/dates-and-deadlines.html

Final exam schedule:
https://www.deanza.edu/calendar/final-exams.html

Tutoring:
The De Anza Student Success Center offers peer tutoring and workshops:
https://deanza.edu/studentsuccess/

For after-hours and weekend tutoring, more information on NetTutor can be found here:
https://deanza.edu/studentsuccess/onlinetutoring/

Disability accommodations:
https://www.deanza.edu/dsps/
Students who have been found to be eligible for accommodations by Disability Support Programs and Services (DSPS), please follow up to ensure that your accommodations have been authorized for the current quarter. Students are responsible for contacting the instructor in a timely fashion to discuss how their accommodations will be implemented in the course. If accommodations apply to exams or homework deadlines, this discussion must occur as soon as possible in the quarter and well before the relevant exam or deadline. Accommodations may not be applied retroactively.

If you are not yet registered with DSPS and need accommodations, please contact the DSPS office at the link above.

Academic integrity policy:
https://www.deanza.edu/policies/academic-integrity.html
Students are expected to exercise academic honesty and integrity. Violations such as cheating and plagiarism will result in disciplinary action which may include recommendation for dismissal. If you have any doubt about whether a specific action is permissible in our class under the academic integrity policy, please ask me for clarification first.

STUDENT LEARNING OUTCOMES
- Construct and evaluate linear systems/models to solve application problems.
- Solve problems by deciding upon and applying appropriate algorithms/concepts from linear algebra.
- Apply theoretical principles of linear algebra to define properties of linear transformations, matrices and vector spaces.

Student Learning Outcome(s):

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Office Hours:

S76a	T,TH	12:00 PM - 1:00 PM
Zoom	W	1:00 PM - 2:20 PM