DeAnza College

Math 2B.53Z – Linear Algebra — Spring 2026
Asynchronous Online Classes

Instructor: Lilit Mazmanyan, Ph.D.	
Contact: mazmanyanlilit@fhda.edu	**Office hours:** Thursday, 2:00 PM – 3:00 PM, online via Zoom (check Canvas course for instructions)

This is an **asynchronous** online class that does not have scheduled meetings. You can study the assigned course materials and complete the assignments via Canvas course management system and WebAssign at your own pace by meeting weekly deadlines. You can access Canvas via MyPortal as you are enrolled in the course or using direct link Dashboard (instructure.com) with your MyPortal login credentials. We will communicate via Canvas Inbox, discussion board, and emails. Check Canvas announcements periodically.
Information about Canvas and Online Education Orientation can be found on Canvas on the Student Resources page: Student Resources (instructure.com). The Student Online Resources hub with extensive information and tips can be found at Online Learning Resource Hub for Students (deanza.edu).

Course Description
Linear algebra and selected topics of mathematical analysis.

Course Objectives
- Solve and analyze systems of linear equations using matrices and matrix theory
- Investigate special matrices and matrix operations including powers and factorization
- Develop understanding and use of n-dimensional vectors and vector operations
- Define and investigate vector spaces and vector sub-spaces and find their bases and dimensions
- Establish understanding of linear transformations and their geometry and find their matrix representation
- Define eigenvalues and eigenvectors and use them to diagonalize square matrices and solve related problems
- Utilize methods of linear algebra to solve application problems selected from engineering, science and related fields
- Prove basic results in linear algebra using appropriate proof-writing techniques

Requisites
Prerequisite: MATH 1D or MATH 1DH (with a grade of C or better)
Advisory: ESL 272 and ESL 273, or ESL 472 and ESL 473, or eligibility for ENGL C1000 or ENGL C1000H or ESL 5

Textbook
David C. Lay, Steven R. Lay, Judith McDonald, Linear Algebra and Its Applications, 6th Edition, Pearson, 2021.

Calculators
- TI-83 PLUS, TI-84 or TI-84 PLUS graphing calculator is recommended for this course or the equivalent one.
- You can use online calculator via website as DESMOS (https://www.desmos.com) or GeoGebra (https://www.geogebra.org) for the homework and group activities.

Weekly course lectures and assignments, and other resources, grades and announcements will be published on our Canvas course (https://deanza.instructure.com).

Homework (HW)	• HW will be assigned each week, but they will not be collected nor graded. • Quizzes and exams will include similar problems from your homework. • Ask your homework questions before quiz and exam.
Group Work and Discussions (GWD)	• GW will be assigned randomly during our course time. • GW must be completed in groups of at least two and no more than four. • Topics and details will be discussed on Canvas. • Due date will be announced. • Group Work is graded based on group discussions, simulation analysis and problem solving. • It is your responsibility to join group discussions not to miss any point.
Quizzes (Q)	• Quiz must be completed on Canvas. • Quiz is based on classwork and homework. • NO MAKE-UP QUIZZES are given. • It is recommended to have one sheet of notes ready. • Missed quiz is graded as a zero (0). • The lowest quiz score will be dropped.
Exams & Final Exam (EX, FE)	There will be four (4) examinations and work details must be submitted on Canvas. • EX 1, 2 & 3 are one hour each and Final exam is two (2) hours. • EX 1, 2 & 3 and the FE dates are on the course schedule. • It is recommended to have one or two sheets of notes ready. • There are NO MAKE-UP examinations. • An absence from any examination earns a grade of zero (0). • You MUST take the final exam to pass the course.
Grading	Students will be graded on group work and discussions (GWD), quizzes (Q), and exams (EX1, 2 & 3, FE). Grading depends on the clarity of work, interpretations, accuracy and completeness of graphs, and explanations as well as numerical answers. **Distribution of weights for each category** Category: % Weight on Final Grade Group Work & Discussions: 10 % Quiz: 10 % Exam 1: 20 % Exam 2: 20 % Exam 3: 20 % Final Exam: 20 % **Grading Scale** A 94-100 A- 90-93 B+ 87-89 B 83-86 B- 80-82 C+ 77-79 C 70-76 D 60-69 F <60

Extra Credit

During the course you will have opportunities for extra credits. There will be extra problems included in the coursework.

Important Dates and Deadlines

Academic Calendar (deanza.edu)

Monday	**April 6**	First day of Spring Quarter 2026
Sunday	**April 19**	Last day to drop classes without a "W"
Sunday	**April 19**	Last day to add classes
Sunday-Monday	**May 23-25**	Memorial Day Weekend - no classes
Friday	**May 29**	Last day to drop classes with a "W"
Friday	**June 19**	Juneteenth Holiday – no classes
Thursday	**June 25**	Final examination

Online Education Center

- Student Resources (deanza.edu): The Online Education Center is committed to providing students with the support they need to successfully access and use Canvas, our course management system.
- Staying Organized: This webpage has advice for planning and staying on top of your online coursework.
- Canvas Help: Need technical support with Canvas? This page has information on how to get help.

California Virtual Campus

- Get Ready for Online Learning: This website has videos about getting "tech ready," managing your time, communicating with instructors and more.

Student services and support

Your Guide to the Quarter

- Tutoring and Library Help
- Computers and Tech Products
- Internet Access
- Food and Financial Assistance
- Health and Psychological Services

Attendance, Drops or Withdrawals

- Regular online attendance is essential for success in the course.
- You must not miss a class in the first week of the quarter or you will be dropped.
- It is the student's responsibility to drop or withdraw from this course by the college deadlines.

Academic Honesty and Discipline Policy

Academic Integrity

Students are expected to abide by the DeAnza College Code of Conduct and not participate in academic dishonesty.

Student Success Center

Math, Science & Technology Resource Center

Hours of online Zoom Tutoring Center are Monday to Thursday 9:00-6:00 PM and Friday 9:00 AM-12:30 PM. The SSC provides free tutoring services such as individual, drop-in, groups, in-class and workshops.

Disability Support Services

Students with disabilities who qualify for academic accommodation must provide a notification from the Disability Support Services (DSS) and discuss their specific needs with the instructor at the beginning of the quarter. Disability Support Services

For information or questions about eligibility, support services or accommodations to disability (physical or learning disability) please contact Disability Support Services (DSS).

Phone number: (408) 460-7681

Email: dss@deanza.edu

Tentative Schedule

- Any change in schedule is announced on Canvas. Students are responsible for keeping track of schedule changes.
- **Group work and Discussions** are assigned on random weekdays, and the due dates will be announced on Canvas.
- **Quizzes** are scheduled for April 16 and 23, May 7 and 14, and June 4; each is a 30-minute timed quiz available from 8:00 AM to 11:59 PM.
- **Examinations 1, 2, and 3** are scheduled on April 30, May 21, and June 11; each is a one-hour timed exam available from 8:00 AM to 11:59 PM.
- **Final Examination** is scheduled for June 25; a two-hour timed exam available from 8:00 AM to 11:59 PM.
- Course materials (syllabus, lecture presentations, quiz/exam answer keys, and additional resources) are uploaded onto *Canva*s. It is accessible to you via MyPortal as you are enrolled in the course.

Student Learning Outcome(s):

• 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.

Office Hours:

T,TH	2:00 PM - 4:00 PM	Zoom