

Math 2270 - 1 Linear Algebra August 21, 2015
Credit Hours: Four
Meeting Time: M, T W, F 9:40 - 10:30 AM in LCB 219 (MWF) and JFB 102 (T)
Homepage: <http://www.math.utah.edu/~treiberg/M2271.html>

Instructor: Prof. A. Treibergs, JWB 224, 581 - 8350.
Office Hours: MTF 12:45 AM - 1:45 PM (tent.) & by appt.
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Prerequisites: "C" or better in M 2210 or M 1260 or M 1280 or M 1321 or M 1320.

Text: David C. Lay, Stephen R. Lay & Judi McDonald, Linear Algebra and its Applications, 5th. ed., Pearson, 2015.
ISBN-13: 978-0321982384; ISBN-10: 032198238X

Course Description:

Euclidean space, linear systems, Gaussian elimination, determinants, inverses, vector spaces, linear transformations, quadratic forms, least squares and linear programming, eigenvalues and eigenvectors, diagonalization. Course includes theoretical and computer lab components.

Topics

Linear Equations.
Matrix Algebra.
Determinants.
Vector Spaces
Eigenvalues & Eigenvectors
Orthogonality and Least Squares
Symmetric Matrices & Quadratic Forms.

Teaching and Learning Methods:

Material will be presented in lectures and read from the text and other sources. Students will solidify their learning by solving problems assigned weekly. Significant time will be devoted to working homework problems in class. Students should read the section in the text before each class.

Evaluation Methods and Grading

Homework: To be assigned weekly.

Tentatively, homework will be due Fridays and will be collected in class Fridays. Papers turned into the graders ??? mailbox in the math mail room (JWB 228) by ??? PM Fridays before she leaves will be regarded as being turned in on time. Homework that is late but not more than one week late will receive half credit. Homework that is more than one week late will receive no credit at all.

Exams: Exams will be closed book. Your text, notes, homework papers, calculators laptops, tablets, phones, text messaging devices, and other books will not be allowed.

Midterms: There will be three in-class one-hour midterm exams on Wednesdays Sept. 16, Oct. 21 and Nov. 18.

Final Exam: Fri., Dec. 18, 8:00 - 10:00 AM. Half of the final will be devoted to material covered after the third midterm exam. The other half will be comprehensive. Students must take the final to pass the course.

Course grade: Best two of three midterms 40% + HW 30% + final 30%.
Grades will be assigned "on the curve."

Withdrawals: Last day to register is Aug. 30. Last day to drop class is Sept. 4. Until Oct. 23 you can withdraw from class with

no approval at all. After that date you must petition your dean's office to be allowed to withdraw.

ADA: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternate format with prior notification to the Center for Disability Services
(www.hr.utah.edu/oeo/ada/guide/faculty/)

Faculty and Student Responsibilities:

All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to the Faculty Rules and Regulations, it is faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. Faculty must strive in the classroom to maintain a climate conducive to thinking and learning (PPM 6-316). Students have a right to support and assistance from the University in maintaining a climate conducive to thinking and learning (PPM 6-400).

Note: The syllabus is not a binding legal contract. It may be modified by the instructor when the student is given reasonable notice of the modification.