Linear Algebra
Math 303
Spring 2024

Instructor

Dr. Seth Harris
Hall of Sciences 302
Email (preferred): sharris2@drew.edu
Phone: (973) 408-3401

Class Meetings

Monday, Wednesday, Friday 1:15 PM – 2:20 PM
Brothers College 120

Zoom (when necessary)

When necessary, we will hold class online on Zoom. All Zoom meetings will be recorded.

Zoom link: https://drew.zoom.us/s/873663190

Meeting ID: 873 663 190

Office Hours

Monday 2:30 PM – 3:30 PM
Tuesday 1:15 PM – 2:30 PM
Wednesday 10:30 AM – 11:30 AM
or by appointment

Office hours will typically be held in person whenever Drew classes are meeting in person. However, you may always request to meet online during these times. Occasionally I will hold office hours online only.

Office hour Zoom link: https://drew.zoom.us/s/284748767

Office hour meeting ID: 284 748 767

Textbook and Course Outline

Linear Algebra and Its Applications, 6th Edition, by David Lay, Steven Lay, and Judi Mc-Donald

Chapter 1: Linear Equations in Linear Algebra
Chapter 2: Matrix Algebra
Chapter 3: Determinants
Chapter 4: Vector Spaces
Chapter 5: Eigenvalues and Eigenvectors
Chapter 6: Orthogonality and Least Squares

Course Description

Due to its broad range of applications in science, business, computer science, and statistics, Linear Algebra is foundational in many of the most important tools for applications and higher mathematics. Topics may include matrices, determinants, systems of linear equations, linear transformations, vector spaces, eigenvalues, and applications.

Prerequisite

Math 151 or Math 200 with a grade of C- or higher

Grading

20%   Homework
16%   Exam 1, Monday, February 12
16%   Exam 2, Friday, March 15
16%   Exam 3, Friday, April 12
22%   Final Exam, Friday, May 3
10%   Average of highest two of four exams

Homework

Homework will be assigned most weeks, and you will be given one week to complete it. You are encouraged to work in groups, but each student must turn in their own work. You will be allowed to turn in at most two homework assignments late. Any late assignment is due at the beginning of the next class, and you need not give any explanation to your instructor regarding why it was late.

Within each assignment, certain homework problems will simply be graded for completion; others, possibly chosen at random, will be graded in more detail for accuracy.

Exams

There will be three midterm exams and a cumulative final exam. All exams will be sit-down exams with no calculators, notes, or books permitted. The final exam is currently scheduled for Friday, May 3 from 12:30–3:30 PM.

If you are unable to make an exam, it is your responsibility to notify your instructor at least 24 hours prior to the exam and arrange a make-up time. If you miss an exam without doing so, a make-up exam will NOT be allowed, unless you have a valid absence verification from the CAE.

Attendance

We expect that you will attend class every day. Repeated absences will negatively affect your mathematical understanding and, ultimately, your final grade. Regular attendance will enhance your comprehension of mathematical concepts, and will help you solving your homework and being productive on exams.

Student Learning Outcomes

By the end of the course, students will be able to:

- Solve systems of linear equations

- Analyze vectors in $\mathbb{R}^n$ geometrically and algebraically

- Recognize the concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces

- Use matrix algebra and relate matrices to linear transformations

- Compute and use determinants

- Compute and use eigenvectors and eigenvalues

- Determine and use orthogonality

- Use appropriate technology for visualization and calculation of linear algebra concepts.

- Solve problems in a range of mathematical applications using linear algebra

Academic Accommodations

Students with approved accommodations through the Office of Accessibility Resources (OAR) should provide the instructor with an accommodation letter by September 6, 2023. If you have not established services through the Office of Accessibility Resources (OAR) but have a temporary health condition or permanent disability that requires accommodations (including, but not limited to; mental health, attention-related, learning, vision, hearing, physical or health conditions), you are encouraged to contact OAR. Although a disclosure may take place at any time during the semester, students are advised to do so as early as possible. For more information, visit OAR's Website, contact Dana Giroux in Brothers College 119B, or at 973-408-3962, dgiroux@drew.edu or disabilityserv@drew.edu.
Office of Accessibility Resources contact information:
Director: Dana Giroux
Location: Brothers College, Room 119B
Phone: 973-408-3962
Email: dgiroux@drew.edu, disabilityserv@drew.edu

Academic Integrity

All students are required to uphold the highest academic standards. Any case of academic dishonesty will be dealt with according to the guidelines and procedures outlined in Drew University's Standards of Academic Integrity: Guidelines and Principles, which is located in the academic policies section of the catalog.

Absence Policy Statement

In addition to the course attendance policy, students should be aware of their rights and responsibilities regarding absences for legitimate reasons as described in the Absence Policy: Student Rights and Responsibilities, which is located in the academic policies section of Drew's course catalog. Legitimate planned absences may include religious holidays, NCAA-sanctioned competition, academic conference or some Drew-sanctioned events. Students need to inform the faculty member of planned absences in the first week of the semester. For unforeseen extended health issues please see the academic accommodations statement.

Final Exam Policy Statement

If extenuating circumstances occur, students may submit a Final Exam Reschedule request for review by the Associate Provost. Students may not negotiate a make-up date directly with the course instructor. Students may request to reschedule an exam under the following circumstances:

1. Two final exams scheduled at the same time;

2. Three finals are scheduled in one calendar day; one of the exams will be rescheduled at the convenience of the instructor and the student;

3. Serious illness, or personal emergency; the student is required to present documentation to validate.

The final exam schedule is visible on the Registrar's website by the beginning of each semester. Students are expected to schedule travel plans for AFTER their final exams.