

Syllabus for MATH 2250, Elementary Linear Algebra, Section 01

Basic course information

- Number of credit hours: 3
- Semester and dates this course runs over: Fall 2024, August 26, 2024–December 13, 2024
- Course meeting times and location: Monday, Wednesday, Friday 10–10:50 AM, Engineering Building, Room 2110
- Prerequisite: Grade of C or better in MATH 2200 or MATH 2205 or MATH 2210 or MATH 2350
- Required textbook: Lay, David C., et al. *Linear Algebra and Its Applications*, 6th edition. Pearson, 2020.
- Other required tool: For homework assignments we will use the online tool myOpenMath.

Course description

(From the course catalogue) Studies linear equations and matrices, vector spaces, linear transformations, determinants, orthogonality, eigenvalues and eigenvectors.

Instructor contact information

- Name: Vincent Ruzicka, or just Vince
- Institutional email: vruzicka@uwyo.edu
- Office location: Ross Hall, room 245
- Office hours: TBD or by appointment

Course expectations

Students are expected to attend class, to participate in class, to have access to a copy of the required text, to read the sections of the required text to be covered in class that day prior to the start of class and to complete all homework assignments and exams in a timely manner.

Course recommendations

It is recommended that students consult resources on linear algebra besides the required course textbook; often one needs to consider the same idea multiple times from different points of view (different authors, instructors, YouTubers, classmates, etc.) in order to understand it. For example, if one is confused by the textbook's explanation of linear independence, one might try reading about this concept in another book, such as my personal favorite *Linear Algebra* by Freidberg, Insel, and Spence, or one of the other thousands of books on linear algebra (our own library probably has 200 or so). It is also recommended that students get their hands dirty with exercises, outside of the homework assignments.

Homework, exams and grading

There will be approximately 13 homework assignments throughout the semester, worth varying amounts of points, which in total will make up 60% of one's grade. There will be one cumulative, in-class midterm exam, worth 10% of one's grade, and there will be one cumulative final exam, worth 30% of the grade. The date, time and location of the final exam is TBD. The following grading scale will be used in this course:

Letter grade	Percentage
A	$\geq 90\%$
B	$< 90\%, \geq 80\%$
C	$< 80\%, \geq 70\%$
D	$< 70\%, \geq 60\%$
F	$< 60\%$

Course schedule

The following schedule is tentative. The meaning of "Sect. x.y" is the textbook section we will cover that day, and "HW" stands for "homework".

Week 1

Aug. 26, 28, 30: Go over syllabus, Chapter 1, HW 1 assigned

Week 2

Sept. 4, 6: Chapter 1, HW 1 due, HW 2 assigned (no class Sept. 2)

Week 3

Sept. 9, 11, 13: Chapter 2, HW 2 due, HW 3 assigned

Week 4

Sept. 16, 18, 20: Chapter 2, HW 3 due, HW 4 assigned

Week 5

Sept. 23, 25, 27: Chapter 3, HW 4 due, HW 5 assigned

Week 6

Sept. 30, Oct. 2, 4: Chapter 3-4, HW 5 due, HW 6 assigned

Week 7

Oct. 7, 9, 11: Chapter 4, HW 6 due, Review, In class exam

Week 8

Oct. 16, 18: Chapter 4, HW 7 assigned (no class Oct. 14)

Week 9

Oct. 21, 23, 25: Chapter 5, HW 7 due, HW 8 assigned

Week 10

Oct. 28, 30, Nov. 1: Chapter 5, HW 8 due, HW 9 assigned

Week 11

Nov. 4, 6, 8: Chapter 6, HW 9 due, HW 10 assigned

Week 12

Nov. 11, 13, 15: Chapter 6, HW 10 due, HW 11 assigned

Week 13

Nov. 18, 20, 22: Chapter 6-7, HW 11 due, HW 12 assigned

Week 14

Nov. 25: Chapter 7, HW 12 due, HW 13 assigned (no class Nov. 27, 29)

Week 15

Dec. 2, 4, 6: Chapter 8, Review, HW 13 due

Course policies and resources

For classroom behavior policy (like how to foster a positive learning environment for everybody, mobile device policy), classroom statement on diversity, academic dishonesty policy (UW Regulation 2-114), duty to report under Title IX and syllabus changes policies (the syllabus may change throughout the semester), see the “Classroom Climate & Conduct” link in the course shell. For information on disability support (like accommodations provided by University Disability Support Services) and other student resources, see the “Learning Tools” link in the course shell.