

UNIVERSITY OF WYOMING
MATH 2250, SECTION 01
ELEMENTARY LINEAR ALGEBRA
3 CREDIT HOURS
ENGINEERING BUILDING, ROOM 2100
FALL 2025
WEEKLY ON MONDAY, WEDNESDAY, FRIDAY
10:00–10:50 AM
MONDAY, AUGUST 25–FRIDAY, DECEMBER 5

Instructor contact information:

Name- Vincent Ruzicka

Office- Ross Hall, room 245

Phone contact- (414)-303-6116

Email- vruzicka@uwyo.edu, vinceruzicka@gmail.com

Office hours and open-door policy: As a graduate student, I am required to spend two of my office hours in the CASM (see next section) each week. The day and time I will be in the CASM each week is determined by the CASM director and is to be determined. Once it is set, I will post an announcement in WyoCourses.

Office hours (in my office) will take place weekly on Wednesday from 9:00–9:50 am (before class) and 11:00–11:50 am (after class).

Otherwise, send me an email to set up an appointment. Moreover, feel free to stop by my office whenever. If I am there, I will be glad to help.

Center for Assistance with Statistics & Mathematics (CASM): The CASM is a tutoring center located in Ross Hall, room 029 (in the basement) dedicated to supporting students in mathematics and statistics courses. No appointment is needed. Hours of operation are Monday–Friday, 10:00 am–5:00 pm.

Course prerequisites: Grade of C or better in MATH 2200 OR Grade of C or better in MATH 2350 OR Grade of C or better in MATH 2205 OR Grade of C or better in MATH 2210.

Course Description: Studies linear equations and matrices, vector spaces, linear transformations, determinants, orthogonality, eigenvalues and eigenvectors.

Student Learning Outcomes: Students will be able to understand the basic linear algebraic details of problems and results in science and engineering. Also, students will understand the meaning of common logical clauses used in the statements of mathematical theorems and proofs.

Required text: Lay, David C., Steven R. Lay, and Judi J. McDonald. *Linear Algebra and Its Applications*. 6th ed. Boston: Pearson, 2020.

I recommend purchasing a print copy of this book so that you can easily flip through it. It appears Pearson (the publisher) only allows one to “rent” a print copy, with the option to keep it after the rental expires. Details for how to purchase can be found at the following web address: <https://www.pearson.com/en-us/subject-catalog/p/linear-algebra-and-its-applications/P200000006235/9780136880929>.

General requirements and expectations for the course:

- The student is responsible for regular and punctual attendance and is expected to participate in class (see section on attendance policy for more).
- Late work will not be accepted unless arrangements were made with the instructor prior to the due date. If you need more time on an assignment, please ask.
- Students are expected to read the required text daily, reviewing material covered in recent lectures and previewing material to be covered in upcoming lectures. For the most part, our course will follow the presentation of material given in the book. Moreover, students should work exercises from the text to test their understanding.
- I strongly recommend students go to the library and check out some books on linear algebra. Not all presentations of linear algebra are the same, but linear algebra is a well established subject; thus, if I am saying something that is not making sense to you, there is almost certainly an explanation out there somewhere that will help you understand. Sometimes, one needs to read about the same topic in several different books (see the idea from several different viewpoints) before it starts to make sense.
- Students are expected to attend office hours or contact the instructor with questions when they are confused about a topic or falling behind.

Required examinations and assignments:

- Cumulative final exam (see below for date)
- Two in-class quizzes (see schedule section for approximate dates)
- Between 8 and 10 homework assignments

Final Examination Date:

Friday, December 12; 10:15 am–12:15 pm (set by the Office of the Registrar).

Grading Scale and Grading Policies: Exams and assignments factor into the final grade as follows.

- Cumulative final exam: 40% of the final grade
- Two in-class quizzes: 15% of the final grade each
- Homework assignments: combine for 30% of the final grade

For homework, we will use the online software myOpenMath; you will simply access the free software through WyoCourses. I will grade the final and quizzes by hand. Students will be given a score of zero on late assignments (see general requirements for exceptions). See the following section for the impact of class absence on in-class quiz scores.

The scale used to determine final grades is as follows.

- Letter grade A corresponds to at least 90%
- Letter grade B corresponds to at least 80% and less than 90%
- Letter grade C corresponds to at least 70% and less than 80%
- Letter grade D corresponds to at least 60% and less than 70%
- Letter grade F corresponds to less than 60%

Attendance and Absence policies: There will be two in-class quizzes during the semester. If one is absent from the class period during which a quiz is given, they will receive a score of zero on that quiz. Otherwise, class absence and participation have no impact on course grades.

Legitimate reasons for absences may occur. Course policies on excused absences are identical to the University's policies; see UW SAP 2-100.2 (Student Attendance Policy).

Classroom Behavior Policy: At all times, treat your presence in the classroom and your enrollment in this course as you would a job. Act professionally, arrive on time, pay attention, complete your work in a timely and professional manner, and treat all deadlines seriously. You will be respectful towards your classmates and instructor. Spirited debate and disagreement are to be expected in any classroom and all views will be heard fully, but at all times we will behave civilly and with respect towards one another. Personal attacks, offensive language, name-calling, and dismissive gestures are not warranted in a learning atmosphere. As the instructor, I have the right to dismiss you from the classroom, study sessions, electronic forums, and other areas where disruptive behavior occurs.

Electronic devices such as mobile phones should be set to silent. Laptops are allowed for note-taking purposes; those who require laptops for accommodation of disabilities, work with Disability Support Services and me to accommodate your needs. No unauthorized video or audio recording during class is allowed to protect the privacy of your fellow students; for those who require recording for accommodation of disabilities, work with Disability Support Services and me to accommodate your needs.

Pursuant to Wyoming state law, individuals who possess a valid concealed carry permit issued by the State of Wyoming may carry a concealed handgun on the University of Wyoming campus, except in designated restricted areas as defined by law and institutional policy. Permit holders are solely responsible for understanding and complying with all applicable federal, state, and local laws, as well as University of Wyoming regulations. Firearms must remain fully concealed and secured in a holster on the permit holder's body, or within a personal carrier (e.g., backpack, purse) that remains under the permit holder's immediate and continuous control at all times. If participation in course-related activities prevents the permit holder from maintaining exclusive control of their concealed firearm, it is their responsibility to make appropriate arrangements prior to attending class.

Academic Freedom and Institutional Discrimination: UW Regulation 2-15 on Academic Freedom states, "Academic freedom in teaching protects the rights of Academic Personnel to teach according to their expertise. Academic Personnel are entitled to freedom in discussing their subject. Academic Personnel have a responsibility to ensure that their teaching is effective and consistent with the standards of the discipline, understanding that disciplines may have diverse points of view on any given subject. Teaching may involve controversial material; however, with academic freedom in the classroom, Academic Personnel also have the responsibility to respect others' freedom to express disagreement and alternate opinions." Additionally, "Academic freedom does not negate the rights of students and the public to disagree with Academic Personnel's work, although students are expected to learn material with which they may disagree." Also adopted by UW in its Academic Freedom policy, "Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled."

Classroom Statement on Diversity: The University of Wyoming values an educational environment that supports students of all backgrounds and viewpoints. Diversity of viewpoints is considered a resource for learning. Topics may be difficult, not only intellectually but emotionally; however, discussions are essential to meeting the course's student learning outcomes and assisting students in

developing problem-solving and critical-thinking skills. During all conversations, respect and civility are of utmost importance.

Disability Support: The University of Wyoming is committed to providing equitable access to learning opportunities for all students. If you have a disability, including but not limited to physical, learning, sensory or psychological disabilities, and would like to request accommodation in this course due to your disability, please register with and provide documentation of your disability as soon as possible to Disability Support Services (DSS), Room 109 Knight Hall. You may also contact DSS at (307) 766-3073 or udss@uwyo.edu. It is in the student's best interest to request accommodation within the first week of classes, understanding that accommodations are not retroactive. Visit the DSS website for more information at: www.uwyo.edu/udss.

Academic Dishonesty Policies: Academic dishonesty will not be tolerated in this class. Cases of academic dishonesty will be treated in accordance with UW Regulation 2-114. The penalties for academic dishonesty can include, at my discretion, an "F" on an exam, an "F" on the class component exercise, and/or an "F" in the entire course. Academic dishonesty means anything that represents someone else's ideas as your own without attribution. It is intellectual theft – stealing – and includes (but is not limited to) unapproved assistance on examinations, plagiarism (use of any amount of another person's writings, blog posts, publications, and other materials without attributing that material to that person with citations), or fabrication of referenced information. Facilitation of another person's academic dishonesty is also considered academic dishonesty and will be treated identically.

AI Technology: Students are not permitted to use advanced automated artificial intelligence or machine learning tools on assignments in this course. Each student is expected to complete each assignment without substantive assistance from others, including automated tools.

Duty to Report: UW faculty are committed to supporting students and upholding the University's non-discrimination policy. Under Title IX, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a "Responsible Employee" of the University, the faculty member MUST report information you share about the incident to the university's Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to offer privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at <http://www.uwyo.edu/reportit>.

You do not have to go through the experience alone. Assistance and resources are available, and you are not required to make a formal complaint or participate in an investigation to access them.

Green Dot Program at UW: Here at The University of Wyoming, we are committed to reducing and preventing power-based personal violence such as sexual assault, relationship violence, and stalking. Green Dot is a bystander intervention program to reduce these forms of violence with one thought; If everyone does one thing, no one will have to do everything. A Green Dot is your choice at any moment to make campus safer by promoting safety for everyone and letting others know that you will not tolerate violence. A Green Dot is any behavior, choice, word or attitude that sends a clear message that: 1. Violence is not okay with you, and 2. Everyone is expected to do their part.

Additional information on Green DOT training and resources are available at: <http://www.uwyo.edu/greendot/>.

Substantive changes to syllabus: This syllabus is a guide. Circumstances may alter the reading and/or test schedules. You are required to check WyoCourses and your email at least once a week.

Schedule of topics and graded work:

Week 1- Discuss how to multiply/add matrices, discuss an application of linear algebra (prerecorded lectures, no in person meeting), 1 homework, no office hours.

Weeks 2–5- Cover sections 1.1–1.5, 1.7–1.9 (no class 9/1), 3 homeworks, in class quiz during week 4.

Weeks 6–8- Cover sections 2.1–2.5, 2.8, 2.9 (no class 10/13), 2 homeworks.

Weeks 9–11- Cover chapter 3, sections 4.1–4.6 (guest lecturer 10/20), 2 homeworks, in class quiz during week 10.

Weeks 12–14- Cover sections 5.1–5.5 (no class 11/26 and 11/28), 1 homework.

Week 15- Discuss orthogonality (will not appear on final exam) and review.

Student Resources:

DISABILITY SUPPORT SERVICES- udss@uwyo.edu, 766-3073, 109 Knight Hall, www.uwyo.edu/udss

COUNSELING CENTER- uccstaff@uwyo.edu, 766-2187, 766-8989 (After hours), 341 Knight Hall, www.uwyo.edu/ucc

ACADEMIC AFFAIRS- 766-4286, 312 Old Main, www.uwyo.edu/acadaffairs

DEAN OF STUDENTS OFFICE- dos@uwyo.edu, 766-3296, 128 Knight Hall, www.uwyo.edu/dos

UW POLICE DEPARTMENT- uwpd@uwyo.edu, 766-5179, 1426 E Flint St, www.uwyo.edu/uwpd

STUDENT CODE OF CONDUCT WEBSITE- www.uwyo.edu/dos/conduct

UW TUTORING RESOURCES- <https://www.uwyo.edu/step/index.html>