

COURSE SYLLABUS

Instructor: Jake Kettinger (jkett@colostate.edu)

Office Hours: Tuesday 11:00 AM - 12:00 PM and Wednesday 12:00 PM - 1:00 PM in Weber 208

Text: *A First Course in Linear Algebra*, by K. Kuttler, the Tenth Anniversary Edition. (A link to the textbook will be provided on Canvas.)

Course Description and Objectives: Linear algebra is one of the most important and fundamental subjects in mathematics: virtually every area of mathematics uses the tools of linear algebra. Linear algebra also has applications in scientific computation, engineering, and statistical models in the social sciences. This course provides an introduction to the ideas and methods of linear algebra, which you will learn by understanding them geometrically and justifying them algebraically. Upon the completion of this course, you will learn:

- Solving systems of questions
- Matrices
- Vector spaces/linear maps
- Spectral Theory

Contact Information: The best way to contact with me is by **email**, jkett@colostate.edu. Please put “[MATH 369]” at the beginning of the subject and include your whole name in your email. Using your official CSU email to contact me is strongly recommended. You are welcome to stop by during my office hours. If you want to meet at another time, please email me in advance, and we will try to schedule a time to meet.

Scheduling: A tentative schedule of assignments and exams is included in this syllabus. These details are presented as a guide. Your instructor may change the dates for each assignment and/or Exam, modify the exercise list, and/or add assignments. It is your responsibility to keep track of the course details and schedule.

Attendance & Engagement: Daily attendance for class lectures is expected and is **extremely important**. While attendance is not recorded, **missing even one class will put you behind**. Note that there is a strong correlation between class absences and poor grades. You are responsible to attend the class on time and you are responsible for all material and announcements in class regardless of whether or not you attended. We will be abiding by all of the University’s policies.

Class Expectations: You are expected to spend one to three hours outside of class on classwork for each hour spent in class. This means that most weeks you should be spending six to nine hours outside of class on work for this class. Please adjust your schedule accordingly.

Homework: You are encouraged to do all the suggested exercises listed on the syllabus. You must do the online homework in Lyryx as scheduled or request an extension before the deadline.

Biweekly Quizzes: A biweekly Quiz will be given at the end of class on Thursdays. Each Quiz will last about 15 minutes. Material for the Quizzes will be drawn from sections discussed in class and covered on homework assignments during the previous three class periods.

Exams: We will have 2 Midterm Exams and a Final Exam. Make-up Exams will only be given with written evidence of an official University excused absence. If you know in advance you will be unable to take an Exam due to a University excused absence, please notify the instructor as early as possible. Failure to show up for an Exam or to notify the instructor in advance of an absence can yield a score of zero.

Final Exam Policy: Students are expected to arrange their personal and work schedules to allow them to take the Final Exam at the scheduled time. No student will be permitted to take the Final Exam early. The Final Exam for this course is **6:30 PM to 8:20 PM, Monday, December 9th.**

Grading: Online Homework totals to 20%, Quizzes total to 24%, Midterm Exam I 15%, Midterm Exam II 15%, and Final Exam 26%. Below is the **maximum** percentage required to get a particular letter grade. That is, I may lower these percentages, but I will not raise them.

Percentage	97	90	87	84	80	77	74	70	67
Letter Grade	A+	A	A-	B+	B	B-	C+	C	D

Grade Questions: Any questions regarding grading/scoring of homework, Exams, or projects must be made **within two class days** from when they were handed back, or no change in grade will be made. Because of privacy rights, **I cannot discuss grades over email**. Please do not email me asking about your grade. I will not be able to give you any information. Of course, I am happy to discuss grades during office hours.

Special Dates:

- August 23 (Friday): End restricted drop.
- October 7 (Thursday): Exam 1.
- November 8 (Friday): End Course Withdrawal ("W") Period, Repeat/Repair Deadline.
- November 25–29: Fall Recess (No Classes)
- November 11 (Thursday): Exam 2.
- December 9 (Monday): Final Exam, 6:20 PM - 8:20 PM.

Academic Integrity: Academic honesty is essential to the existence and integrity of an academic institution. The responsibility for maintaining that integrity is shared by all members of the academic community. The University's Student Code of Conduct addresses academic misconduct. Students who commit acts of academic misconduct are subject to disciplinary action and are granted due process and the right to appeal any decision.

Departmental Grading Appeals Policy: Students who believe their academic evaluation has been prejudiced or capricious have recourse for appeals to (in order) the instructor, the departmental chair, the departmental appeals committee, and the college appeals committee.

Services for Students with Disabilities: The University strives to make all learning experiences as accessible as possible. If you anticipate or experience barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can discuss options privately. To establish reasonable accommodations, I may request that you register with Student Disability Center (SDC). If you are eligible for services and register with their office, make arrangements with me as soon as possible to discuss your accommodations so they can be implemented in a timely manner. SDC contact information: TILT Building, room 121.; (970) 491-6385; sdc_csu@colostate.edu .

Student Concerns and Feedback: Your experience in this course is important to me. If you have questions, concerns, or positive feedback, please contact me at jkett@colostate.edu. If I am unable to respond, or you feel I have not adequately addressed your concerns, you can contact Alexander Hulpke, hulpke@colostate.edu. If your concern is still not resolved, please contact Associate Dean of Undergraduate Affairs Jen Aberle, jennifer.aberle@colostate.edu.

Week of	Tuesday	Thursday
8/19	Syllabus Review Vectors 4.1, 4.2, 4.3	Review Vectors 4.4, 4.5, 4.6
8/26	Systems of Equations 1.1, 1.2 HW 0 (Practice)	Systems of Equations 1.2 QUIZ 1
9/02	Matrices 2.1, 2.2, 2.3 HW 1 DUE	Matrices 2.3, 2.4
9/09	Matrices 2.5, 2.6 HW 2 DUE	Matrices 2.6 Determinants 3.1 QUIZ 2
9/16	Determinants 3.2 HW 3 DUE	\mathbb{R}^n 4.7, 4.8, 4.9
9/23	\mathbb{R}^n 4.9 HW 4 DUE	\mathbb{R}^n 4.9 QUIZ 3
9/30	\mathbb{R}^n 4.10, 4.11 HW 5 DUE	\mathbb{R}^n 4.11
10/07	Review HW 6 DUE	EXAM 1
10/14	Vector Spaces 9.1, 9.2	Linear Transformations 5.1, 5.2, 5.3, 5.4 QUIZ 4
10/21	Linear Transformations 5.6, 5.7, 5.8 HW 7 DUE	Spectral Theory 7.1
10/28	Spectral Theory 7.1, 7.2 HW 8 DUE	Spectral Theory 7.2 QUIZ 5
11/04	Spectral Theory 7.3 HW 9 DUE	Spectral Theory 7.4
11/11	Review	EXAM 2
11/18	Applications	Applications QUIZ 6
11/25	FALL RECESS	
12/02	Review	Review
12/09	FINAL EXAM Monday 12/09 6:20 PM-8:20 PM	