



Math2318.001 Linear Algebra

COURSE SYLLABUS: Spring 2024

Instructor: Rebecca Dibbs, PhD

Office Location: 318 Binnion

Office Hours: MTW 12-1, R 12-2; by appointment

Office Phone: 468-8660

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COURSE INFORMATION

Materials

Textbook(s) Required: Linear Algebra 5th Edition David Lay

Course Description: Introduces and provides models for application of the concepts of vector algebra. Topics include finite dimensional vector spaces and their geometric significance; representing and solving systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion; matrices; determinants; linear transformations; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisites: [MATH 2414](#) with a minimum grade of C or Math 192 with a minimum grade of C.

COURSE REQUIREMENTS

Course Activities

Videos: This is a flipped class, which means class time will be used for working problems rather than lecture. You are expected to watch all of the posted videos before the class that covers those topics.

Video Check: To ensure that you are prepared for the lab, there will be an open note quiz on D2L every day there is not a test. These assignments must be completed before the start of class where the lab is to be assigned.

Teams: In order to maximize your chances of success, you have been assigned to teams of 3-5 students. Where possible, you have been placed with other students in your major. Any requests to change initial teams must be made in writing by the end of the second day of class. The instructor reserves the right to rearrange teams, but will do so as little as possible. Your team will be expected to work together each day to complete the lab.

Labs: Every day in class, we will be working on labs. Labs will consist of a mix of problem sets and activities to help you master the material. Labs are due the day after the day you work on them in class; however, labs will be almost if not entirely completed during class time. On each lab, one member of your team will be randomly selected to turn in their writeup; that write-up will be graded for the group. Ten random problems from each lab will be graded on a 2 point scale.

Attendance: Attendance is mandatory and graded. If you are not in class, not an active group member, or leave early, you will be marked absent for the day. Excessive tardiness may also result in an absence.

Homework: Since this is a flipped classroom, all of the problems that would normally have been done as homework in a traditional class will be done as labs in class. Your responsibility outside of class is to watch the videos, take notes on the videos, and to finish any lab you do not complete in class.

The key to success in this course is regularly working with other students in the class and asking questions when you have them!!! We will discuss lab problems in class, but there will often not be enough time to discuss all of them. Please come to office hours or visit the math tutoring lab if you have additional questions about the lab.

Exams: There will be 5 chapter exams and a final. See schedule for dates.

Workload and Assistance: You should expect to spend a minimum of TWO HOURS every day, outside of class, on the course material. This includes watching the videos, labs, and studying for quizzes and exams. Some weeks (those in which an exam is scheduled, for instance) may require more of your time, other weeks may require less, but *on average*, budget 8 to 12 hours each week. I can't stress enough that in order to be successful in this class you should spend much of this time working with other students in the class! Please ask questions and seek assistance as needed. You may email me at any time, and I encourage you to make use of my office hours

RETESTING: On the last week of class, you may take a second version of one of the first five tests in the testing center. This test will replace the grade on your first attempt. You must decide if you will make the attempt (and on which test) no later than 4/25/2024.

Final Exam: The final exam is cumulative and will cover Chapters 1-5 and topics in Chapter 6

Extra Credit: There are exactly two ways to earn extra credit in this class. First, if less than half of the class is present at the start of class as measured by my cell phone, everyone present earns extra credit. Second, some tests contain extra credit problems.

GRADING

This class will be graded on a weighted percentage system:

Assignment	Weight
Labs	17%
Video Checks	7%
Test 1-5	10% each x 5 = 50%
Attendance/Participation/Professionalism	6%
Final	20%
Total	100%

All point totals will be rounded up to the nearest whole point before grades are assigned. Point ranges for final grades will be as follows:

- A: 90-100%
- B: 80-89%
- C: 70-79%
- D: 60-69%
- F: 0-59%

TECHNOLOGY REQUIREMENTS

Use of a graphing calculator having at least the capabilities of the TI-83 will be helpful throughout the course. TI-89 is highly recommended. A computer algebra system will be used for some problem exploration, enhanced conceptual understanding, and to engage students as active participants in the learning process. **NOTE: There will be a no calculator allowed on the first exam.**

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

My primary form of communication with the class will be through Email and Announcements. Any changes to the syllabus or other important information critical to the class will be disseminated to students in this way via your official University Email address available to me through MyLeo and in Announcements. It will be your responsibility to check your University Email and Announcements regularly.

Students who Email me outside of regular office hours can expect a reply within 24 hours M-F.

Students who Email me during holidays or over the weekend should expect a reply by the end of the next regularly scheduled business day.

myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at <https://leo.tamuc.edu>.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

Academic Honesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

Cheating is defined as:

- Copying another's test or assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

Plagiarism is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

Collusion is defined as:

- Collaborating with another, without authorization, when preparing an assignment

If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Late Policy: Late work/Make-ups will not be accepted without a documentable and valid excuse, because the lowest grade(s) in each category is dropped. Examples of documentable and valid excuses include:

- *car accident w/ police report
- *illness w/ doctor's note (you or your child)
- *athletic or other mandatory extra-curricular travel
- *field trip for another class
- *being detained upon entering the country by Homeland Security

AI Statement

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

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University Specific Procedures

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel.

Campus Concealed Carry (new): Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Note: **Homework is due at the start of class the day after a section is finished**

Note: **The days highlighted in yellow will be online and the homework will be due the following Tuesday.**

Note: **Video checks are due by the start of class the day the material is listed on the calendar**

Tuesday	Thursday
	Syllabus & 1.1
1.2 & 1.3	1.4
1.5 & 1.6	1.7 & 1.8
1.9, Review	Test 1
2.1-2.3	2.1-2.3
2.4 & 2.5	2.6 & 2.7
2.8	2.9/Review
Test 2	3.1 & 3.2
3.3, Review	Test 3
SPRING	BREAK
4.1	4.2 & 4.3
4.4 & 4.5	4.6 & 4.7
4.9, Review	Test 4
5.1	5.2 & 5.3
5.4 & 5.5	5.6, 5.7, & 5.8; Review
Test 5	6.1, 6.2, & 6.3 RETEST DECLARATIONS DUE TODAY!
6.5, Final Exam Review	
RETESTING MONDAY & TUESDAY IN TESTING CENTER	