

# **MATH 2318.02E (20507) – LINEAR ALGEBRA**

## **COURSE SYLLABUS: SPRING 2025**

**Office Hours:** On-Campus

Monday 10AM–11:30AM

Tuesday 11AM–12PM

Wednesday 10:30AM–12PM

Tuesday 11AM–12PM

or by appointment.

**Office Phone:** 903-886-5944

**Office Fax:** 903-886-5945

**University Email Address:** [Mehmet.Celik@tamuc.edu](mailto:Mehmet.Celik@tamuc.edu)

**Preferred Form of Communication:** email

**Communication Response Time:** Student course-related questions or concerns through email are answered usually within 24 hours during weekdays (M-F).

**Class Meeting Time:** **Tuesday and Thursday 12:30am - 1:45pm** (Tuesday and Thursday are discussions and lectures.)

**Class Location:** **BINB302**

## **COURSE INFORMATION**

### **Materials**

**Textbook(s) Required:** Linear Algebra and its Applications, (6th edition) by David C. Lay, Judi J. McDonald, Steven R. Lay, ISBN-13: 9780135851258. An eText is available with a MyMathLab subscription. The material covered during the semester will be Chapter 1-6. We may occasionally cover enrichment activities, not in the text.

**Course Description:** Introduces and provides models for the 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. Prerequisite: Math 2414 with a minimum grade of C.

Using a graphing calculator with 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.

### **Student Learning Outcomes**

1. Students will demonstrate proficiency in the use of mathematics to structure their understanding of and investigate questions in the world around them.

2. Students will demonstrate proficiency in treating mathematical content at an appropriate level.
3. Students will demonstrate competence in the use of numerical, graphical, and algebraic representations.
4. Students will demonstrate the ability to interpret data, analyze graphical information, and communicate solutions in written and oral form.
5. Students will demonstrate proficiency in the use of mathematics to formulate and solve problems.
6. Students will demonstrate proficiency in using technology such as handheld calculators and computers to support their use of mathematics.

### **Student Assessment Outcomes**

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

1. *Critical Thinking*: Will be measured through one or more of the following: quizzes, projects, and/or exams
2. *Oral, Visual, and Written communication Skills*: Will be measured through one or more of the following: quizzes, projects, and/or exams
3. *Empirical and Quantitative Skills*: Will be measured through one or more of the following: quizzes, projects, and/or exams

## **COURSE REQUIREMENTS**

**Instructional Methods:** The course places a strong emphasis on in-class activities that foster the development of critical thinking skills among students. Prior to class meetings, students will receive information to prepare them for small group problem-solving sessions and discussions. These sessions will cover computational, concept-based, and discussion-oriented problems. During class time, the professor will fully engage students in their own learning by enabling them to think critically, discuss ideas, investigate concepts, and create solutions during group discussions. Students can expect a range of exciting in-class learning activities. Students will submit their work for feedback at the end of each session, with daily participation grades returned at the next meeting.

### **Course Evaluation Methods**

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

**Exams** – There will be two Mid-term exams and a Comprehensive Final Exam. Each exam will be proctored in the classroom.

**Exam 1:** On Week #7 (February 25<sup>th</sup>, Tuesday)

**Exam 2:** On Week #13 (February 15<sup>th</sup>, Tuesday)

Make-up exams are possible only if there is a documented emergency.

**Final Exam** - Comprehensive Final Exam.

Wednesday, May 8<sup>th</sup> from 10:30am to 12:30pm

**Quizzes** –There will be no make-ups for any missed quizzes. Instead, at the end of the semester, the highest ten quizzes will be considered. Each week, one quiz on Monday will be posted on the course home page under D2L and will be due the following Monday.

The student will download the posted quiz questions, write his/her answers/solutions on a separate sheet with the academic integrity statement on the top ("*On my honor, as a student, I have neither given nor received unauthorized aid on this academic work,*" and sign under that statement), scan the sheet(s) and submit the scanned pdf file to the virtual basket under D2L (Activities→Assignments→Quiz #) as

LastName\_FirstName\_Quiz?\_Math2318.02E.pdf

(Example: Celik\_Mehmet\_Quiz3\_Math2318.02E.pdf).

The quiz you submit must be your work. Plagiarism is strictly prohibited.

**Online Homework Assignments** (from MyMathLab): As a helpful resource to accompany your textbook, there is an online supplement called MyMathLab. In MyMathLab, you will have an online homework assignment for each section covered in the course. You can attempt these assignments as many times as you need, and only your highest score will be recorded. Completing these assignments will aid in your preparation for any upcoming tests, making them an essential tool for success. Additionally, the electronic version of the textbook is included in MyMathLab. You can find the Class Key under the course home page in D2L to create your MyMathLab account and begin working on your homework assignments. MyMathLab will also give you a grace period of two weeks to be able to start working immediately.

**Attendance:** Regular attendance in class is crucial for earning higher final grades. Active participation and engagement during class discussions are essential to successful learning. The course material discussed during class is vital for demonstrating proficiency in the subject. It is important for students to inform their instructors of any absences and to make up any missed work. Coordination with fellow students for class notes is recommended if a student cannot attend class. Let's aim for consistent attendance and active participation in class to reach our educational goals.

**The key to success:** In this course, it is crucial to work with other students in the class, do the homework early, and ask questions when you have them! We may discuss some homework problems during class meetings, but there will not be enough time to discuss all of them. Please join your professor's office hours on Zoom or in his office (Binnion 323) if you have additional questions about the homework or the concepts.

It's also important to remember that quizzes only cover a specific part of the material, while exams cover the entirety of the subject. This might explain why your scores sometimes differ. To improve your exam score, you should frequently review the material by practicing problem-solving. Going through previous assignments and quizzes can also be helpful. During the exam, be

sure to read each question carefully and double-check your solutions. To improve your quiz score, it's essential to make sure you understand the material, review your mistakes from past quizzes, and learn how to manage your time efficiently. If you find a particular problem challenging, move on to the next one and come back to it later.

**Workload and Assistance:** To succeed in this course, it is recommended that you set aside two to three hours each day outside of class to review the material. This includes reading, completing homework assignments, and preparing for quizzes and exams. Depending on the week, you may need to allocate more or less time for these tasks. Collaborating with fellow classmates can also be beneficial, so don't hesitate to ask for help or clarification. Your professor has reserved specific office hours in Binnion 323 to assist you further. If you have any questions or concerns, feel free to reach out via email. Please note that emails are generally answered within 24 hours during weekdays (M-F).

**Grading Matrix:** For the Math 2318.02E course in Spring 2025, your final grade will be determined using a total points system. The class has a maximum of 400 points. Your final score will be calculated based on the grading matrix below. All grading instruments will be assigned between the beginning and end of the 2025 semester. The final exam will take place on Wednesday, May 8 from 10:30 am to 12:30 pm and is the last grading instrument for the course. Your final grade for the course will be based solely on your performance in mid-term exams, quizzes, in-class participation, online homework assignments, and the final exam. There will be no extra credit assignments.

<b>Instrument</b>	<b>Value (points)</b>	<b>Total</b>
Quizzes	The best 10 in-class quizzes (best 10 scores)	60
Online HW Assignments	Best 20 online homework assignments will be considered.	40
Mid-term Exams	2 Mid-term exams at 100 points each	200
Final Exam	One comprehensive final exam at 100 points	100
<b>Total:</b>		<b>400</b>

**Grade Determination:**

A = 400 – 360 pts; i.e. 90% or better

B = 320 – 359 pts; i.e. 80 – 89 %

C = 280 – 319 pts; i.e. 70 – 79 %

D = 240 – 279 pts; i.e. 60 – 69 %

F = 239 pts or below; i.e. less than 60%

## TECHNOLOGY REQUIREMENTS

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.

- **TI-83/84** or other calculators with similar capability is recommended.
- **A printer** to print homework and tests is recommended.
- **Scanner/digital camera/cell phone** that you can take pictures of your work and submit them to the Virtual Basket under D2L.
- **D2L:** As a student enrolled at East Texas A&M University, you have access to D2L. You will obtain course materials through D2L, (MyLe→ APPs→ D2L). The course materials are only for this course. You cannot distribute the course materials without the permission of the instructor. You also have an email account via myLeo - all my emails sent from D2L (and all other university emails) will go to this account, so please be sure to check your email regularly.

### BROWSER SUPPORT

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Browser	<b>Supported Browser Version(s)</b>	<b>Maintenance Browser Version(s)</b>
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

**TABLET AND MOBILE SUPPORT**

<b>Device</b>	<b>Operating System</b>	Browser	<b>Supported Browser Version(s)</b>
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	<p>The current major version of iOS (the latest minor or <b>point</b> release of that major version) and the previous major version of iOS (the latest minor or <b>point</b> release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.</p> <p>Chrome: Latest version for the iOS browser.</p>
Windows	Windows 10	Edge, Chrome,	Latest of all browsers, and

<b>Device</b>	<b>Operating System</b>	<b>Browser</b>	<b>Supported Browser Version(s)</b>
		Firefox	Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site http://www.java.com/en/download/manual.jsp](http://www.java.com/en/download/manual.jsp)
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.  
 JavaScript is enabled.  
 Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader https://get.adobe.com/reader/](https://get.adobe.com/reader/)
  - [Adobe Flash Player \(version 17 or later\) https://get.adobe.com/flashplayer/](https://get.adobe.com/flashplayer/)
  - [Adobe Shockwave Player https://get.adobe.com/shockwave/](https://get.adobe.com/shockwave/)
  - [Apple Quick Time http://www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)

At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.



## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**NOTE:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

### BRIGHTSPACE SUPPORT

#### NEED HELP?

#### STUDENT SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

#### TECHNICAL SUPPORT

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words "click here" to submit an issue via email.



#### SYSTEM MAINTENANCE

D2L runs monthly updates during the last week of the month, usually on Wednesday. The system should remain up during this time unless otherwise specified in an announcement. You may experience minimal impacts to performance and/or look and feel of the environment.

#### INTERACTION WITH INSTRUCTOR STATEMENT

Student course-related questions or concerns through email are answered usually within 24 hours during week days (M-F). Feedback on assessments will be provided within 7 days after the assignment is submitted.

My primary form of communication with the class will be through the official university 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 D2L Email address available to me through MyLeo and in Announcements. It will be your responsibility to check your official university Email and Announcements regularly.

**Discussions:** This space is for students to communicate with each other. I may visit Discussions and join your discussion. Please feel free to answer one another's questions. I will check answers (as well as questions) for correctness, but do not hesitate to respond to a posting if you feel you can answer the question thoroughly and directly.

### **STUDENT ACADEMIC RESOURCES**

**Math Skills Center (MSC):** Free tutoring service offered by the Mathematics department. It will be offered in an online format this summer, as courses in the D2L course management system. The MSC will be open during their normal summer hours of Monday - Thursday, 10am - 2pm, and will offer tutoring through Calculus 1, with other courses optional to the tutor, depending on the tutor's experience and willingness to assist.

**The TAMUC One Stop Shop** - provides as many student resources as possible in one location.

<http://www.tamuc.edu/admissions/oneStopShop/>

**The TAMUC Academic Success Center** provides academic resources to help you achieve academic success.

<http://www.tamuc.edu/CampusLife/CampusServices/AcademicSuccessCenter/default.aspx>

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

### **Course Specific Procedures**

#### **Policy for Reporting Problems with eCollege**

If students encounter D2L-based problems while submitting assignments and assessments, the following procedures **MUST** be followed.

1. Students must report the problem to the help desk. You may reach the helpdesk at [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org) or 1-866-656-5511
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time I will call the helpdesk to confirm your problem and follow up with you.

PLEASE NOTE: Your personal computer/access problems are not a legitimate excuse for filing a ticket with the help desk. You are strongly encouraged to check for compatibility of your browser **BEFORE** the course begins and to take the eCollege tutorial offered for students who may require some extra assistance in navigating the eCollege platform. **ONLY** D2L-based problems are legitimate.

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

## **University 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.

### **AI use in course [Draft 2, May 25, 2023]**

East Texas A&M University 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.

13.99.99.R0.03 Undergraduate Academic Dishonesty  
13.99.99.R0.10 Graduate Student Academic Dishonesty

### **East A&M Supports Students' Mental Health**

**The Counseling Center at East A&M, 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](http://www.tamuc.edu/counsel)**

### **ADA STATEMENT**

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**

East Texas A&M University

Gee Library- Room 162

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

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

#### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).



<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

[Netiquette http://www.albion.com/netiquette/corerules.html](http://www.albion.com/netiquette/corerules.html)

### **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

### **Copyright Policy**

The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this course, which include but are not limited to syllabi, lecture notes, quizzes, exams, in-class materials, review sheets, projects, and problems sets. Because these materials are copyrighted, you do not have the right to copy and distribute the handouts.

### **NONDISCRIMINATION NOTICE**

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University 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 East A&M Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

## **COURSE OUTLINE / CALENDAR**

### **WEEKLY SCHEDULE:**

(Week 1). Syllabus, 1.1	(Week 7). <b>Exam 1</b> , 2.7	(Week 14). 6.2, 6.3
(Week 2). 1.2, 1.3, & 1.4	(Week 8). 2.8, 2.9, & 3.3	(Week 15). <b>Review</b>
(Week 3). 1.5, 1.6	(Week 9). 4.1, 4.2	(Week 16). <b>FINALS</b>
(Week 4). 1.7, 1.8, & 1.9	(Week 10). 4.3, 4.4, 4.5	<b>WEEK</b>
(Week 5). 2.1, 2.2	(Week 11). 4.6, 5.1, 5.2	
(Week 6). 2.3, <b>Review</b>	(Week 12). 5.3, <b>Review</b>	
	(Week 13). <b>Exam 2</b> , 6.1	

### **Notes:**

**Week #2**, Monday, January 20<sup>th</sup>, 2025, is MLK, Jr. Day. The campus will be closed, and there will be no classes that day. The class will meet on Tuesday, Wednesday, Thursday, and Friday.

**March 10<sup>th</sup>-14<sup>th</sup> Spring Break**. The campus will be closed, and there will be no classes this week.

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by email and in-class announcements.