MATH 2318-01W Linear Algebra

COURSE SYLLABUS: Summer I 2025
Web Based Course – June 2 to July 3

INSTRUCTOR INFORMATION

Instructor: Dr. R. Cavender Campbell Email Address: robert.campbell@etamu.edu

Office Location: Binnion 303B (Regular Availability is Online)

Office Hours: MTWR 10:00am-11:00am via Zoom (Email for in-person appointment)

https://tamuc.zoom.us/j/96742088291?pwd=vVPc5KJDbrZV47Tuv5RarSh1o5qTca.1

Meeting ID: 967 4208 8291 Passcode: 2318

Preferred Form of Communication**: Email**

COURSE INFORMATION

Textbook

Lay, Lay & McDonald. (2019). *Linear Algebra and its Applications* (6th ed.). Pearson.
An eText is available with your MyMathLab subscription. MyMathLab is REQUIRED.

Course Description

MATH 2318 – Linear Algebra – Hours: 3

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.

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 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.

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

Student Assessment Outcomes

1. Critical Thinking: Will be measured in homework, quiz, and test questions.
2. Written, Oral, & Visual Communication: Students will be assessed on written, oral, and visual communication skills during assignments
3. Empirical and quantitative reasoning: All assessments in this course will contain a quantitative reasoning and empirical computation component.

Course Learning Outcomes

1. Find solutions of systems of linear equations by using Gauss-Jordan elimination.
2. Identify and compute algebraic properties of matrices and determinants.
3. Demonstrate a thorough knowledge of vector spaces and subspaces.
4. Determine the following for a given matrix: basis and rank for column, row, and null spaces, eigenvalues, eigenvectors, basis and rank for eigenspaces.
5. Define linear transformations and examine the properties of linear transformations.
6. Identify inner product spaces and use Gram-Schmidt orthogonalization process to orthogonalize any given basis.

COURSE REQUIREMENTS

Instruction will include video lessons for each section and the ability for students to interact in office hours, meetings, or discussion boards. These videos will be accessed through D2L. It is critical that you regularly access both D2L and Pearson's MyLab to succeed in the course.

There are two required elements to certify starting the course. First, complete the "Summer I MATH 2318 Testing Information" form at https://forms.gle/L1gY1kmDd9wjvdwp9. Second, you must sign up for MyLab and complete "#1 Orientation & Syllabus." Each is discussed below in course components.

Grading information and explanation of each course component and assessment information follows below. It is critical and required that you regularly access both D2L and MyLab to complete all course components.

A graphing calculator (e.g.,TI-84) is highly recommended.

Grading

Final grades in this course will be based on a total points system:

A: 650 – 580 B: 579 – 510 C: 509 – 440 D: 439 – 370 F: 369 – 0

The instructor reserves the right to reward students for continuous hard work.

My Math Lab Homework – 200 points

Quizzes (5) – 20 points each = 100 points

Check for Understanding (5) – 20 points each = 100 points

Midterm Exam – 100 points

Final Exam – 150 points

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

Course Components

Homework will be accessed through Pearson's My Math Lab at mymathlab.com or coursecompass.com with the Course ID ***campbell59603***. **Students must sign up for My Lab by June 9th and complete "#1 Orientation & Syllabus" to certify that you started the course.**

Homework assignments will be for practice and an opportunity to demonstrate understanding of the material. I encourage you to discuss homework assignments with your classmates, but all work must be your own. Any work violating the university's guidelines for academic honesty will receive a grade of zero. All assignments are completed in MyLab. Your MyLab homework percentage will be multiplied by two to obtain your score out of 200 points. There are 29 required assignments, #1 – #29, and four replacement assignments, A, B, C, and D. These four sections will not be on the exams, but can replace another assignment. At the end of the term, the lowest 4 scores from all 33 assignments will be dropped.

There are due dates shown in MyLab and the course calendars at the end of the syllabus to help you maintain adequate progress. MyLab will allow you to work on assignments after the due dates. Late assignments are accepted subject to the following conditions:

- The sections on the Midterm (Chapters 1 & 2) will close at 11:59pm on June 18th.
- All remaining sections (Chapters 3, 4, 5, & 6) will close at 11:59pm on July 3rd.

No further work can be submitted for any category after July 3rd.

Checks for Understanding (CFU) and Quizzes will be completed through D2L. These can be completed at any time but must be done before the end of the term on July 3rd at 11:59pm. They also must be completed in order with each Quiz being done before the CFU.

> **Quizzes:** There are 5 quizzes worth 20 points each. Problems will be similar to the Midterm and Final Exams, but the shorter format will allow the professor to see the students' progress on individual concepts. Quizzes are submitted as pdfs through D2L. Only one submission is allowed but a submission may contain more than one file. You must also submit an *Academic Integrity and Ethics Statement* with each quiz.
>
> **Check for Understanding (CFU):** There will be 5 CFUs worth 20 points each. Each CFU consists of 10 true/false questions. The student should use the questions to deepen their understanding of the definitions and concepts. The importance of each portion of a definition, theorem, or procedure should be carefully considered for each question. Only one attempt per CFU is allowed.

The term is 5 weeks. Thus, one Quiz and CFU must be completed each week. To ensure that you maintain adequate progress throughout the term, 5 points will be deducted from total points at the end of the semester for each Quiz and CFU that is not completed by Saturday at 11:59pm in the corresponding week.

Quiz 1 and CFU 1 must be completed by Saturday, June 7th at 11:59pm to avoid penalty.
Quiz 2 and CFU 2 must be completed by Saturday, June 14th at 11:59pm to avoid penalty.
Quiz 3 and CFU 3 must be completed by Saturday, June 21th at 11:59pm to avoid penalty.
Quiz 4 and CFU 4 must be completed by Saturday, June 28th at 11:59pm to avoid penalty.
All assignments close at 11:59pm on July 3rd.

No further work can be submitted for any category after July 3rd.

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

Midterm and Final Exam: There will be a Midterm worth a maximum of 100 points and a Final Exam worth a maximum of 150 points. The exams will have objective, short answer, and free response style questions. The Midterm exam will cover chapters 1 and 2. The Final Exam will be comprehensive of all material covered in the course.

You must complete the "Summer I MATH 2318 Testing Information" form at https://forms.gle/L1gY1kmDd9wjvdwp9 to indicate how you plan to take exams. This is a requirement to certify that you started the course.

Students will take exams in one of three ways:

1) A classroom will be available on campus for taking the Midterm and Final Exams on their assigned dates. The Midterm can be taken June 13th or 16th between 10am and 2pm each day. The Final Exam can be taken July 2nd or 3rd between 10am and 2pm each day.
2) You can schedule the exam at an approved testing center (this may require additional fees that are the student's responsibility). This option can also be done through the Academic Testing Center on campus. You must receive approval from the instructor including acknowledgement that the exam is ready for you at the testing site to use this option.
3) There will be a Zoom meeting available with the instructor. In this option, **students must have audio and video capabilities to take exams**. An exam will be sent to a student once they enter the Zoom conference and start their audio and video. Once a student starts an exam they must remain in the conference and in frame of the video until they complete the exam. Exceptions can be made for reasonable technical difficulties and will be considered case by case. Zoom for the Midterm is available. The Midterm can be taken June 13th or 16th between 10am and 2pm each day. The Final Exam can be taken July 2nd or 3rd between 10am and 2pm each day. As your chosen date and time approaches you will be sent a link to the Zoom at your University email.

A graphing calculator (e.g.,TI-84) is highly recommended.

COMMUNICATION AND SUPPORT

If you have any questions or difficulties with the course material, contact Dr. Campbell. Please use email or visit the instructor during virtual office hours. The instructor will make every effort to respond by the next business day at the latest. Additional time to meet with you can be set up if there are conflicts in availability.

Office hours are MTWR 10:00am-11:00am via Zoom.

https://tamuc.zoom.us/j/96742088291?pwd=vVPc5KJDbrZV47Tuv5RarSh1o5qTca.1

Meeting ID: 967 4208 8291 Passcode: 2318

You can also email for in-person appointment or a Zoom meeting outside of the regular hours.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found at https://community.brightspace.com/support/s/contactsupport

MyLab support is available through Pearson at https://support.pearson.com/getsupport/s/

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements.

LMS Requirements and Browser Support:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

MyMathLab Information: coursecompass.com or mymathlab.com

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.

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 plans to deal with these inevitable problems. If accommodations are needed, they will be considered on a case-by-case basis. In general students are expected to be able to complete the course completely online.

COURSE POLICIES

The Course Components section of the syllabus explains each portion of the grade and how the final grades will be assigned. To certify that you started the course, you must complete the "Summer I MATH 2318 Testing Information" form at https://forms.gle/L1gY1kmDd9wjvdwp9 and sign up for MyLab and complete "#1 Orientation & Syllabus." If you do not complete both by June 9th at 11:59pm, you may be dropped for non-attendance on June 10th.

All lesson videos, homework assignments, quizzes, and checks for understanding will be available on the first day of classes. The schedules at the end of the syllabus are provided as a guide for completing the course by the end date of July 3rd. Students can work ahead of the schedule. **No work can be submitted after July 3, 2025, at 11:59pm.**

Students will take exams in one of the three ways explained under the Course Components. The Midterm is to be taken on June 13th or 16th and the Final Exam is to be taken on July 2nd or 3rd. It is the student's responsibility to communicate any issues as soon as possible.

A graphing calculator (e.g.,TI-84) is highly recommended.

Syllabus Change Policy

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.

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

University Specific Procedures

East Texas A&M Attendance

For information about the university attendance policy please visit:
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

Attendance will be tracked using the login data from both D2L and MyLab. If needed a final date of attendance will be recorded as the last login date to either platform. However, if you do not complete the "Summer I MATH 2318 Testing Information" form and sign up for MyLab and complete "#1 Orientation & Syllabus" by June 9th you will be considered to have not begun the course and may be dropped for non-attendance.

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.
www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Academic Integrity

Students at East Texas A&M are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see procedure 13.99.99.R0.
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Artificial Intelligence

East Texas A&M 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.

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

Nondiscrimination Notice

East Texas A&M 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 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 Texas 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.
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 Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Counseling Services

The Counseling Center at East Texas 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.

Students with Disabilities-- 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 — Phone (903) 886-5150 or (903) 886-5835
Gee Library- Room 162 — Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

COURSE OUTLINE

Chapter	Topics	Sections	Assignments
0	Orientation & Syllabus	O	#1
1	Linear Equations & Matrices	1.1 – 1.9	#2 – #10
2	Matrix Algebra	2.1 – 2.3, 2.5, 2.8, 2.9	#11 – #16
3	Determinants	3.1 – 3.3	#17, #18, A (3.3)
4	Vector Spaces & Basis	4.1 – 4.6	#19 – #22, B (4.2) & C (4.5)
5	Eigenvalues & Eigenspaces	5.1 – 5.3, 5.5	#23 – #25, D (5.5)
6	Orthogonality & Normality	6.1 – 6.4	#26 – #29

Quiz & CFU	Sections
1	1.1, 1.2, 1.3, 1.4, 1.5, 1.6
2	1.7, 1.8, 1.9, 2.1, 2.2, 2.3, 2.5
3	2.8, 2.9, 3.1, 3.2
4	4.1, 4.3, 4.4, 4.6, 5.1
5	5.2, 5.3, 6.1, 6.2, 6.3, 6.4

Exam	Sections
Midterm	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.1, 2.2, 2.3, 2.5, 2.8, 2.9
Final	All Required Sections

No work can be submitted after July 3, 2025 at 11:59pm.

The *syllabus/schedule are subject to change if unexpected circumstances arise.*

MATH 2318 - Linear Algebra - Summer I 2025 - Daily Calendar

June/July 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Jun	2	3	4	5	6	7
	O, 1.1, 1.2	1.3, 1.4	1.5, 1.6	1.7, 1.8 Quiz 1	CFU 1	Quiz & CFU 1 Due
8	9	10	11	12	13	14
	1.9, 2.1	2.2, 2.3	2.5, 2.8	2.9 Quiz 2 Midterm Review	CFU 2 **Midterm 10am-2pm**	Quiz & CFU 2 Due
15	16	17	18	19	20	21
	Midterm 10am-2pm 3.1, 3.2	3.3, 4.1	4.2, 4.3	Holiday University Closed	4.4 Quiz 3 CFU 3	Quiz & CFU 3 Due
22	23	24	25	26	27	28
	4.5, 4.6	5.1, 5.2	5.3, 5.5	6.1 Quiz 4	CFU 4	Quiz & CFU 4 Due
29	30	1-Jul	2	3	4	8
	6.2, 6.3	6.4 Quiz 5 Final Exam Review	CFU 5 **Final Exam 10am-2pm**	**Final Exam 10am-2pm** No Work accepted after 11:59pm	Holiday University Closed	

Complete “Summer I MATH 2318 Testing Information" at https://forms.gle/L1gY1kmDd9wjvdwp9 & “#1 Orientation & Syllabus” in MyLab by June 9

These dates are provided as a guide to finishing the course before the term ends on July 3.
You can complete assignments, quizzes, tests, and the course at a faster pace than shown in this calendar.
No work will be accepted after 11:59pm, July 3, 2025.

Policies and times for the Midterm and Final Exam can be found in the syllabus.
Midterm: June 13 or 16 10am-2pm
Final Exam: July 2 or 3 10am-2pm

MATH 2318 - Linear Algebra - Summer I 2025 - Daily Calendar

June/July 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Jun	2	3	4	5	6	7
	O, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, Quiz 1, Check for Understanding 1					Quiz & CFU 1 Due
8	9	10	11	12	13	14
	1.9, 2.1, 2.2, 2.3, 2.5, 2.8, 2.9, Quiz 2, Check for Understanding 2, Midterm Review				**Midterm 10am-2pm**	Quiz & CFU 2 Due
15	16	17	18	19	20	21
	Midterm 10am-2pm	3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 4.4, Quiz 3, Check for Understanding 3				Quiz & CFU 3 Due
22	23	24	25	26	27	28
	4.5, 4.6, 5.1, 5.2, 5.3, 5.5, 6.1, Quiz 4, Check for Understanding 4					Quiz & CFU 4 Due
29	30	1-Jul	2	3	4	8
	6.2, 6.3, 6.4, Quiz 5, Check for Understanding 5, Final Exam Review, Final Exam		**Final Exam 10am-2pm**	**Final Exam 10am-2pm** No Work accepted after 11:59pm	Holiday University Closed	

Complete “Summer I MATH 2318 Testing Information" at https://forms.gle/L1gY1kmDd9wjvdwp9 & “#1 Orientation & Syllabus” in MyLab by June 9

These dates are provided as a guide to finishing the course before the term ends on July 3.
You can complete assignments, quizzes, tests, and the course at a faster pace than shown in this calendar.
No work will be accepted after 11:59pm, July 3, 2025.

Policies and times for the Midterm and Final Exam can be found in the syllabus.
Midterm: June 13 or 16 10am-2pm
Final Exam: July 2 or 3 10am-2pm

MATH 2318 - Linear Algebra
Summer I 2025

Course Checklist

#1	O	
#2	1.1	
#3	1.2	
#4	1.3	
#5	1.4	
#6	1.5	
#7	1.6	
#8	1.7	
#9	1.8	
#10	1.9	
#11	2.1	
#12	2.2	
#13	2.3	
#14	2.5	
#15	2.8	
#16	2.9	

#17	3.1	
#18	3.2	
A	3.3	
#19	4.1	
B	4.2	
#20	4.3	
#21	4.4	
C	4.5	
#22	4.6	
#23	5.1	
#24	5.2	
#25	5.3	
D	5.5	
#26	6.1	
#27	6.2	
#28	6.3	
#29	6.4	

You must complete the “Summer I MATH 2318 Testing Information" form at Link and “#1 Orientation & Syllabus” in MyLab before June 9.

No work will be accepted after 11:59pm, July 3, 2025

Quiz 1		5 point penalty if submitted after June 7th
CFU 1		5 point penalty if submitted after June 7th

Quiz 2		5 point penalty if submitted after June 14th
CFU 2		5 point penalty if submitted after June 14th

	Midterm Exam	June 13 or 16

Quiz 3		5 point penalty if submitted after June 21st
CFU 3		5 point penalty if submitted after June 21st

Quiz 4		5 point penalty if submitted after June 28th
CFU 4		5 point penalty if submitted after June 28th

No work will be accepted after 11:59pm, July 3, 2025

Quiz 5		
CFU 5		

	Final Exam	July 2 or 3