Cuyamaca College

Math 284 – Linear Algebra Section 0497 Spring 2023

Instructor: Dan Curtis E-mail:daniel.curtis@gcccd.edu

Class Times: MW 12:30-1:45 pm Room: H133
Office Hours: Monday 11:45 – 12:30 pm Office: H115

Tuesday 10:00 – 11:00, 12:15 – 1:45 pm

 $\begin{array}{ll} We dnesday & 11:45-12:30 \ pm \\ Thursday & 10:00-11:00 \end{array}$

Prerequisites: A grade of C or better in Math 280 or the equivalent.

Text and Materials:

• Math 284 Workbook – Free pdf download

• A graphing calculator is required. The TI 84+ or TI 89 are highly recommended.

<u>Course Description</u>: The topics covered in this course include matrix algebra, Gaussian Elimination, systems of equations, determinants, Euclidean and general vector spaces, linear transformations, orthogonality and inner product spaces, bases of vector spaces, the change of basis theorem, eigenvalues and eigenvectors, the rank and nullity of matrices and linear transformations. This course is intended for the transfer student planning to major in mathematics, physics, engineering, computer science, operational research, economics or other sciences.

Important Dates: Last day to add classes/Last day to drop Sunday, February 12

and qualify for a refund and to drop without

receiving a "W"

Last day to drop with a 'W' Sunday, April 30

Final Exam Monday, June 5

11:45 am – 1:45 pm

It is the student's responsibility to take care of any administrative procedures involved in dropping should he/she stop attending class.

Grading: Your final grade will be based on the percentage of total points you earned, using the standard scale: A = 90% and above, B = 80-89.9%, C = 70-79.9%, D = 60-69.9%, F = below 60%.

Grading Summary:	Homework	30%
	Projects	20%
	Exams	30%
	Final Exam	20%
	Total	100%

<u>Exams</u>: There will be three exams during the semester. Exam questions will be based on the homework, and I will review the material covered on the exam during class on the last class day before the exam. If you score at least 70% overall on the homework and projects, I will drop your lowest exam score. The final exam is cumulative.

<u>Homework</u>: Homework assignments will be done on paper from the workbook. There will also be two additional homework sheets not included in the workbook. Homework will be collected on exam days.

<u>Projects</u>: Throughout the semester, there will be projects due. The projects will consist of problems that are more interesting and involved than the typical homework and exam problems. Students are encouraged to work together on the projects, but each student is responsible for completing and submitting his/her own project.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1. Use analytic, numerical, and graphical methods to solve linear algebra level problems
- 2. Solve multi-disciplinary application problems and interpret the results in context
- 3. Prove basic results in linear algebra using appropriate proof-writing techniques

<u>Tutoring</u>: For Fall 2021, Online Tutoring and (Limited) In-person Tutoring has been consolidated into one Cuyamaca Tutoring Center, which will be open Monday 9-6, Tuesday 9-7, Wednesday 9-7, Thursday 9-6, Friday 10-3. You will be able to request a Zoom Video Tutoring session, an Email Tutoring session, or an In-person tutoring session (vaccinated students only) right from your Canvas container by clicking the blue "Tutoring" link on the left side of your course container and completing the request form. You may also email <u>Cuyamaca.Tutoring@gcccd.edu</u> or visit our website at <u>www.cuyamaca.edu/tutoring</u> or leave a message with your call back information at (619) 660-4525 for more information.

<u>Attendance</u>: Good attendance is a must for success in this class. College policy states that a student may be dropped from the course for excessive absences or tardies.

My Policy: Four absences during the first four weeks or six absences during the entire semester and you may be dropped – arriving significantly late or leaving significantly early counts as half an absence.

<u>Disability Support Services</u>: Academic accommodations are available for students with disabilities. Please identify yourself to your instructor and to DSPS staff so that the appropriate accommodations can be ensured. DSPS is at A-300, LRC (660-4239)

<u>Academic Honesty</u>: Academic dishonesty of any type by a student provides grounds for disciplinary action by the instructor or college. If you cheat, there will be consequences: I may give you a zero on the assignment or a zero in the course, or other additional consequences, regardless of whether you were the giver or receiver of the cheating.

<u>Misconduct</u>: Disruptive or threatening behavior or any conduct that interferes with my ability to teach or another student's ability to learn will not be tolerated. Such actions could result in a warning, removal from the class or referral to the Dean for disciplinary action. Please turn off your cell phones during class.

Class Schedule

Week	Monday	Wednesday
Wk 1	Intro, Module 1	Module 1
Wk 2	Module 2	Module 2
Wk 3	Module 3	Module 3
Wk 4	No Class	Exam #1
Wk 5	Module 4, 5	Module 5
Wk 6	Module 6	Module 6
Wk 7	Module 7	Module 7
Wk 8	Review	Exam #2
Wk 9	Module 8	Module 8, 9
Wk 10	Module 9, 10	Module 10
Wk 11	Module 11	Module 11
Wk 12	Module 12	Module 12
Wk 13	Module 13	Module 13, 14
Wk 14	Review	Exam #3
Wk 15	Module 14	Module 15
Wk 16	Module 16	Review for Final
Finals Week	Final Exam	
	Monday, June 5	
	11:45-1:45 pm	