

MATH 2853, Elementary Linear Algebra, Summer 2020

Section: 01 **Hours Credit:** 3 hours

Room and Hours: Online

Prerequisite: MATH 1634 with C or better

Instructor: Dr. Kwang Shin

Zoom Office Hours: MWF (11:00am – 12:00 pm). The link will be announced at CourseDen.

E-mail: kshin@westga.edu through your campus e-mail (myUWG).

We will use **CourseDen** for most communications. Please check the course website at CourseDen everyday.

Course Description: A concrete, applied approach to matrix theory and linear algebra. Topics include matrices and their connection to systems of linear equations, Gauss-Jordan elimination, linear transformations, eigenvalues, and diagonalization.

Text: Linear Algebra and Its Applications, 5th Edition by David C. Lay, Steven R. Lay, and Judi J. McDonald, Pearson Publishing.

Learning Outcomes: Upon successful completion of the course, the student will

1. Be able to express linear systems of equations in matrix form.
2. Be able to solve systems of linear equations using Gauss-Jordan elimination.
3. Be able to perform basic matrix operations and compute matrix inverses and determinants.
4. Be introduced to the basic properties of real vector spaces and subspaces including properties such as linear independence, span, basis, rank.
5. Examine linear transformations and their applications.
6. Be able to compute eigenvalues and eigenvectors of a square matrix.

Tentative Hour Exams Schedule: Exam 1 (Tue, June 16), Exam 2 (Thu, July 2), Exam 3 (Thu, July 16).

Tentative Final Exam Schedule: Friday, July 24. The final exam will be cumulative.

On the day of Exams and Quizzes, I will post them at around 7:00 am and then you will need to finish them by 11:59 pm. Once you open them, you will have a certain amount of time to finish them.

Homework: Homework will be assigned 2~3 times a week at CourseDen. Homework will be collected for grade. Doing homework in timely fashion is essential for the success in this course. **Just listing final answers will not give you any credits.** Partial credit will be considered for incomplete work. However, **late submission will receive zero point.** The total homework score will be converted to a 70 point scale at the end of semester.

Quizzes: There will be a quiz on almost every Tuesday and Thursday consisting of problems that are *almost identical* to homework problems. Occasionally, quizzes can be given on some other days of week. Each quiz will be 10 points and two lowest scores will be dropped. If needed, the total quiz score will be converted to an 80 point scale at the end of semester.

Grade Scale: 3 hour exams 300 points (100 points each)

 Quizzes 80 points

 Homework 70 points

Final 200 points

Total 650 points

A: 585 - 650, B: 520 - 584, C: 455 - 519, D: 357 - 454, F: 0 – 356

Calculators can be used, but everything should be justified by hand.

June 24 is the last day to withdraw from a class with a grade of W.

Zoom Office Hours: We will have office hours 3 times a week at 11 am on MWF (This time can be changed later). Try to attend all of them. Office hours are scheduled for one hour, but no students are present for more than 5 minutes, I will end the meeting.

Class Participation: I will award some **bonus points** to students who attend office hours on regular basis (at least 2 times a week) and actively participate.

Make-up: There will be no make-up quiz and exams.

Also, please carefully review the following information at <http://tinyurl.com/UWGSyllabusPolicies> or http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf. It contains important material pertaining to your rights and responsibilities in this class. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.