Spring 2024 Linear Algebra 3450:312

INSTRUCTOR: Dr. Stefan Forcey EMAIL: sforcey@uakron.edu
OFFICE: CAS 275 PHONE: 972-6779

OFFICE HOURS: MoTuWe 2:45pm-3:45 pm. Lots more by appointment!

Text and Coverage: "Introduction to Linear Algebra with Applications."
DeFranza and Gagliardi. Google play ebook:
https://play.google.com/books/reader?id=LZi3BgAAQBAJ&pg=GBS.PR8&hl=en
or find on Amazon to rent (ISBN 9781478628309).

Website for schedule, homework problems and announcements:
https://sforcey.github.io/sf34/class_home/linear/linears24.htm

Learning Outcomes for 3450:312 Linear Algebra

Students are expected to be able to

- Determine if a set of vectors is linearly independent
- Represent systems of linear equations using matrices and solve such systems
- Find bases and dimensions of vector spaces
- Determine properties of matrix transformations
- Find eigenvalues and eigenvectors for given matrix
- Write elementary proofs

GRADING POLICY:

- The quiz/homework average will be calculated by dropping a total of 15 raw quiz points which means that I'll calculate your percentage by first adding up to 15 points back on to your raw score, limited by the maximum number of hw/quiz points possible. This will have the effect of making a 100% quiz average possible despite some missed homeworks/quizzes.
- There will be 2 in-class closed book tests and the final exam during the semester over the material from lectures, homework and the book. No test may be taken early or late.
- 1000 points possible. For each of these three categories the fraction of points you receive is the same fraction that you earn out of the total possible. If you get 4/5 of the problems correct on test 1, you earn (4/5)*300 = 240 points.

100 pts: Homework, quizzes (30%)
600 pts: 2 Tests at 300 pts each. (40%)
300 pts: Final Exam (30%)

900 pts. guarantees an A
800 pts. guarantees a B
700 pts. guarantees a C
600 pts. guarantees a D
(+,- at my discretion)

Course Outline:

- Jan. 15: No class on MLK day.
- Jan. 17: Day one.
- Chapter 1: Systems of Equations and Matrices
- Chapter 2: Linear Independence
- Jan. 29: Last day to drop.
- Feb. 20: No class, Pres. day.
- TEST 1.
- Chapter 3 : Vector Spaces
- Mar. 3: Last day to w/draw.
- Chapter 4: Linear Transformations
- Chapter 5: Eigenvalues
- TEST 2.
- Mar. 25-31: Spring break.
- Chapter 6: Inner products
- May 3: Last day.
- Final Exam

No notes, formula sheets or books may be used on the any test or the final exam.

Homework may not be copied, but collaboration and research are allowed. All other work is individual. Any incidence of academic dishonesty carries a minimum penalty of a non-removable zero for that work. No active cellular phones, pagers, media players, computers or other electronic communication devices are permitted during the tests.

For information on *"WHAT STUDENTS NEED TO KNOW,"* go to What Students Need To Know : The University of Akron, Ohio (uakron.edu) (see the list of items below).

- The Student Code of Conduct and academic misconduct
- Statement about the ethical use of ChatGPT and other AI tools
- Inclusive Excellence
- Title IX
- Sexual harassment and sexual violence
- Students with disabilities
- Religious accommodations for students
- ZipAssist