Professor:	Peter Klosterman
Office:	Samuelson 229A
Email:	peter.klosterman@cwu.edu
Office Hours:	M – Thu 1 – 2 PM; Fri noon – 1 PM

If this time window doesn't work, feel free to email or talk to me in-person to arrange a different time for office hours

Textbook: *Linear Algebra and its Applications (6th ed)* by Lay, Lay, and McDonald. Physical textbook not required. MyMathLab (MML) access is required since it will be used for homework. Access to MML is included by default as part of your enrollment into this course. MML also includes access to the ebook.

A graphing calculator is highly recommended (either TI-84, ~$110, or Casio fx-9750giii, ~$40)

Course Topics:

Linear algebra, the study of multivariate linear systems and transformations, is essential preparation for advanced work in data science, statistics, and computing. We will first investigate systems of linear equations and how matrices arise naturally as ways to encode information about systems, as well as networks and Markov Chains. Next we will learn how to manipulate matrices (matrix algebra, determinants, and Gaussian elimination), and see why this is useful. Then we will learn about vector spaces, subspaces, spans, linear independence, and dimension. Finally, we will use these tools to find eigenvalues and eigenvectors. At the end of this course, you will be able to:

§ Solve systems of linear equations using efficient techniques
§ Perform basic matrix operations.
§ Determine and use vector space properties.
§ Translate information between the context of systems of equations, coefficient matrices, and the domain and range of a linear transformation.
§ Solve problems requiring the use of eigenvalues and eigenvectors

Grading:

HW Sets	30 %
2 midterm exams	40 %
Final exam	30 %
Total:	100 %

The following grading scale will be used:

A	93-100%	C	73-78
A-	90-93	C-	70-73
B+	87-90	D+	67-70
B	83-87	D	60-67
B-	80-83	F	0-60
C+	77-80		

Exams:

There will be 2 midterm exams spaced evenly throughout the quarter, planned for weeks 4 and 8. Final exam is Tuesday, June 7th from noon – 2:00 PM. All exams are closed book and closed notes except for a single 3x5 card. A graphing calculator can be used on exams and is highly recommended. Your final exam percentage can also double to replace your lowest midterm percentage (if it benefits you). Makeup exams will be given only for

legitimate *documentable* reasons. If, for some legitimate reason (such as a positive Covid test) you cannot make it to one of the exams, please contact me *ahead of time*.

Homework:
Homework sets will be posted/updated throughout the week on MyMathLab *(accessed through the "My Textbook" link in Canvas)* and due the Tuesday of the following week by midnight. Extensions will only be given for situations beyond your control (e.g. a positive Covid test) and not for poor planning. Please note that any last-minute issues (i.e. internet problems, computer problems, etc.) the evening of the deadline will be considered poor planning. Don't wait until the final few hours to finish your homework!

Classroom Policies:
Sickness: If you have a positive Covid test, are feeling sick, or have had close contact with someone who has tested positive for Covid, please do *not* come to class. Email me, and I will send you course notes and a link to a video that will cover the missed material. Please remember that sickness *is* a valid reason to reschedule an exam.

Disruptive classroom conduct: When I give you time to work on problems in-class, I encourage you to work with those around you. However, I expect you to not distract others when I am addressing the class. Repeated disruptive and/or distracting in-class behavior will receive an official warning. If the behavior persists after this, you may receive a grade deduction of up to one letter grade at the end of the quarter.

Ways to Get Additional Help:

- Office hours. Don't be afraid to stop by and ask a question. It's my goal to see you succeed.
- Khan Academy. https://www.khanacademy.org/math/linear-algebra They have lots of helpful linear algebra resources that may be just what you need.

Official CWU Policies:

Cheating will not be tolerated. Cheating will result in a zero grade for the exam and possibly a failing grade for the course. See the CWU Academic Dishonesty statement for more info: https://www.cwu.edu/resources-reports/cwup-5-90-0104-academic-dishonesty

Accommodations are available for students with disabilities. Students who wish to arrange for academic adjustments in this class are encouraged to provide me with a copy of their Confirmation of Eligibility for Academic Adjustments and meet with me as soon as possible to discuss their needs and the manner in which their accommodations will be delivered. Reasonable accommodations are also available for students who, due to the observance of religious holidays, expect to be absent or endure a significant hardship during certain days of the course or program. To receive accommodations for religious holidays, please contact me within the first 2 weeks of the quarter.

Sexual Harassment is not tolerated. You are entitled to a safe and inclusive learning environment where you are treated with dignity and respect. Title IX considers sexual harassment to be a form of discrimination. If you experience sexual harassment, or know someone who is being sexually harassed, you are encouraged to report concerns to me, another faculty member or employee, or to Staci Sleigh-Layman, Title IX Coordinator, at 509-963-1256, staci@cwu.edu. For more information about CWU's sexual harassment policies, refer to https://www.cwu.edu/hr/reporting-sexual-misconduct.