Matrix Algebra
Math 308 O Spring 2020

Instructor: Josh Southerland **Office:** Padelford C-552
e-mail: jsouther@uw.edu (specify **Math 308** in all correspondence)
Course Website: sub.mersion.cc/m308/m308_2020B.html
Alternatively access the website via: http://www.math.washington.edu/∼jsouther
Office Hours: TBD

Text and Webassign: The text for the course is *Linear Algebra with Applications, second edition* by Jeffrey Holt. You may purchase the text at the University Book Store. You are not required to purchase a hard copy of the text. *Webassign* access (see next paragraph) includes an electronic copy of the text.

You will need access to *Webassign* to complete homework assignments. If you've not yet purchased a *Webassign* access code, follow the link on the course website to do so.

Course Summary: This is a first course in linear algebra. It is truly remarkable how ubiquitous linear algebra is throughout math and sciences: from cryptography to graph theory, from machine learning to research mathematics. Whether you are an aspiring computer scientist, mathematician, physicist, biologist or engineer, the techniques we will learn in this class are a fundamental component of your studies. Topics include solving linear systems of equations, span and linear independence of vectors, linear transformations, inverses, subspaces, change of basis, the determinant function, eigenvalues and eigenvectors, and diagonalization. Feel free to visit the course materials webpage for additional information (https://sites.math.washington.edu/ m308/).

Grading: Your grade will be made up of

Webassign	5 %
Conceptual Problems	15 %
Quizzes (2)	10 %
Exam I	20 %
Exam II	20 %
Final Exam	30 %

Technology: All lectures in this course will be on Zoom. All lectures will be recorded live and a link to the video will be uploaded to the course website. However, the turnover time between the live recording and posting may be in excess of 2 days. As an alternative, you will also have links to Ebru Bekyel's (Section A Instructor) lectures as they come available. Additionally, all lecture notes will be available.

Since the class will be entirely online, in order to take this course you will need the following:

1. Internet!

2. A laptop or phone that will allow you to participate in Zoom video conferences

3. Browser that can access Gradescope, Webassign, Canvas, and Catalyst

4. Gradescope Account (Course Entry Code: MVPRX2)

5. Webassign Account

6. The ability to upload PDFs of written work (for example: consider phone apps that convert images to PDFs, or scanning apps such as Scannable)

Zoom Policies for lectures and office hours: During **lectures,** keep your microphones muted. Use the chat function in Zoom to ask questions. Occasionally, if I don't understand a question, I may ask you to unmute and clarify. I will use video to share my screen. You do not need to feel pressure to use video, but you can if you would like. During **office hours,** you can unmute your microphone and ask questions. If there ends up being too many people, I may ask every to mute their microphones and utilize

the chat feature. Also, please be courteous. If you ask a question, please ask follow-up questions to clarify my answer. However, if you find the answer is satisfactory, please give others an opportunity to ask a question before you ask another.

Academic Honesty: To receive a grade in the course, you will be required to sign an academic honesty pledge. A record of the pledge will be kept on Gradescope.

Homework: Each week, beginning the second week of the quarter, you will get a homework email detailing all that is due that week. Webassign homework assignments will be assigned and collected via *Webassign*. This portion of your homework will generally be due at 11:00pm on Tuesday and Thursday, and occassionaly Sunday. In addition to Webassign homework, you will also be assigned a certain number of Conceptual Problems that will be turned in via Gradescope on the dates specified in the homework emails. Conceptual Problems will also be due generally at 11:00pm throughout the quarter. **No extensions will be given to anyone for any reason.** You may miss 10% of the total of homework points available for the quarter without penalty to your grade.

Exams: You will be allowed to use a TI-30X IIS scientific calculator and one 8.5×11 sheet of **handwritten** notes for the exams. **No other calculators or electronic devices will be allowed** (e.g. no cell phones, no laptops, no palm pilots, no pagers). You may not share a calculator or a note sheet with another student on an exam. Some exams may end up being open-book. If this is the case, a policy for the exam will be given to you.

Exam Dates:

Exam I	Wednesday, April 22	via Zoom
Exam II	Friday, May 15	via Zoom
Final Exam	Monday, June 8	via Zoom

Make-Ups: No extensions will be granted for homework to anyone for any reason. No exceptions. Make-up exams and make-up quizzes will not be given. If you miss an exam due to <u>unavoidable</u>, <u>compelling</u>, and <u>well-documented</u> circumstances (e.g., illness, transportation emergency), **contact Josh immediately.**

Resources for Students with Disabilities:

The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, or dso@uw.edu.

Religious Accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UWs policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy:

https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/
Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form:

https://registrar.washington.edu/students/religious-accommodations-request/