

Matrix Algebra

Math 308 F Summer 2020: A-Term

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(specify **Math 308** in all correspondence)

Course Website: sub.mersion.cc/m308/m308.2020C.html

Alternatively access the website via: <http://www.math.washington.edu/~jsouther>

Office Hours: TBD

CAUTION! This course is a 4.5 week version of a course usually taught over a 10 week quarter with an exam week. During a 10 week quarter, a typical student spends 8 to 20 hours per week on the class, including lecture hours, depending on your mathematical experience level. This means you should be prepared to be spending upwards of 20 to 40 hours of work each week on this course. If you are not currently in a position that will allow you to do this, DO NOT take this course.

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 %
Quiz I	15 %
Quiz II	15 %
Quiz III	15 %
Final Exam	35 %

To achieve a 2.0, you will need an overall course grade of at least a 60%.

Technology: 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: MX622E)
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, 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 occasionally 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 20% 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:

Practice Quiz	Friday, June 26	via Zoom, first 25 min. of class
Quiz I	Monday, July 6	via Zoom, first 25 min. of class
Quiz II	Friday, July 10	via Zoom , first 25 min. of class
Quiz III	Friday, July 17	via Zoom, first 25 min of class
Final Exam	Wednesday, July 22	via Zoom, during class 9:40-11:50

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 unavoidable, compelling, and well-documented 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/>