

# Matrix Algebra with Applications

## Math 308 H; Spring 2019

**Instructor:** Dr. Amos Turchet

**Office:** Padelford C-528

**e-mail:** aturchet@uw.edu (specify **Math 308** in all correspondence)

**Course Website:** <http://www.math.washington.edu/~aturchet/teaching/spr2019/math308.html>

**Office Hours:** M W 4:30-5:30 p.m. or by appointment

**Text:** *Linear Algebra with Applications* by Jeffrey Holt. You may purchase a hard copy of the text at the bookstore or use the electronic version that comes with Webassign.

**Course Content:** Math 308 is an introductory course in linear algebra intended for students in engineering, mathematics, and the sciences. Topics will include systems of linear equations, vector spaces, matrices, subspaces, orthogonality, least squares, eigenvalues, eigenvectors, and applications.

**Grading:** Your grade will consist of:

Homework	6 + 3%
Quizzes	6%
Lowest Midterm	20%
Higher Midterm	25%
Final Exam	40%

Your raw percentage score resulting from the above table might be curved after evaluating the performance of the class over the entire quarter.

**Homework:** There are two types of homework assignments:

- Webassign homework (6% of the grade): these will be assigned and collected via Webassign. During most weeks, they will be due at 11:00 p.m. on Thursday, with possibly some exceptions during exam and holiday weeks. You may miss up to 10% of the total number of homework points on Webassign during the quarter without penalty to your grade. These are problems from the textbook and mostly give you practice with the basic mechanics of the course.
- Test prep homework (3% of the grade): these are more challenging problems. You should expect that at least half of each exam will be modeled on these homeworks. You will be divided into groups (by the instructor) and each group will turn the solutions every other Wednesday the week after the problems are assigned. These will be graded for completion only.

**Quizzes:** There will be 3 ten to fifteen minutes quizzes the weeks before the scheduled exams. Each will consist in one, maximum two, problems similar to the ones you will encounter in the midterms and in the final. The main goal of the quiz is to provide you with examples of the challenges you will be facing during midterms and the final exams, and balance the mainly computational Homeworks of Webassign. The quizzes will be closed book and closed notes. Calculators are not allowed. Every formula you might need will be provided to you in the quiz.

**Exams:** You will be allowed to use a scientific calculator (Texas Instruments TI-30X IIS) and one 8.5×11 sheet of **handwritten** notes for the exams (2-sided is OK). Graphing/programmable calculators and other electronic devices will not be allowed (e.g. no cell phones, no laptops, etc). You may not share a calculator nor a note sheet with another student on an exam.

**Exam Dates:**

Exam I	Monday, April 29	in lecture
Exam II	Wednesday, May 22	in lecture
Final Exam:	Thursday, June 13	2:30–4:20 p.m.

**Make-Ups:** Extensions and extra submissions on homework will not be given under any circumstances. You may miss up to 10% of the total number of homework points during the quarter without penalty to your grade.

In the case of observance of religious holidays or participation in university sponsored activities, such as class field trips or athletics, arrangements must be made at least two week in advance for exams. You will be required to provide documentation for your absence.

Make-up exams will not be given. If you miss an exam due to unavoidable, compelling, and well-documented circumstances (e.g., illness, transportation emergency), your final exam may be weighted more heavily. **Contact me immediately if one of these circumstances arises.**

**Overload:** The department policy is that no overload will be done on 300-level classes, no exceptions. Students hoping to get a seat in this section should sign up for Notify.UW, a free tool that sends notifications about course availability directly to students. All registration questions can be directed to the Math Student Services office by email at [advising@math.washington.edu](mailto:advising@math.washington.edu) (there is also the possibility of drop in advising for undergraduate students). Non-matriculated, aka non-degree seeking students will need to wait to request entry. Contact the Advising - Office of Student Services for more information.

**Academic misconduct:** Misconduct during class and exams it is a serious offense and it will not be tolerated in this class. Details of the University's policy on cheating can be found at <http://depts.washington.edu/grading/pdf/AcademicResponsibility.pdf>

**Counseling:** The UW Counseling Center provides brief counseling, assessment, referral, and crisis intervention services to currently enrolled University of Washington students. There is no charge for most of the services. See <http://www.washington.edu/counseling/> for more information.

**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. Your experience in this class is important. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or [uwdrs@uw.edu](mailto:uwdrs@uw.edu) or [disability.uw.edu](http://disability.uw.edu). DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.