Abstract Linear Algebra
Math 340 A; Winter 2019

Instructor: Dr. Amos Turchet
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Course Website: `http://www.math.washington.edu/~aturchet/teaching/win2019/math340.html`
Course Mailing-list: *math340a_wi19@uw.edu*
Office Hours: Monday 4:30 - 5:30 and Friday 10:45 - 11:45

Text: *Linear Algebra* , edition 4, by Stephen H. Friedberg, Arnold J. Insel, Lawrence E. Spence, Pearson, 2003.

Course Content: The course is intended to be a second exposure to Linear Algebra. Topics will include vector spaces, bases, linear transformations, determinants, eigenvectors and eigenvalues, inner product spaces, orthogonal matrices, and matrix decomposition. The lectures will be rigorous introduction to these topics with an emphasis on proofs. However, there will also be examples of applications.

Grading: Your grade will consist of:

Homework	20%
Midterm	35%
Final Exam	45%

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

Homework: Homework assignments will be collected at the beginning of class the day it is due. The homework will be posted on the course website at least a week ahead of time. You may discuss the homework with your classmates, however the assignment must be written up on your own, and for each problem, you must list the names of everyone with whom you worked.

Exams: Calculators, other electronic devices (e.g. cell phones, laptops, etc.), notes, and books will not be allowed during exams.

Exam Dates:

Midterm	Friday, February 8	in lecture
Final Exam	Thursday, March 21	2:30–4:20 PM (SIG 225)

Make-Ups: Extensions and extra submissions on homework will not be given under any circumstances. The lowest homework score will be dropped.

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 400-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 (there is also the possibility of drop in advising for undergraduate students). Non-matriculated, aka non-degree seeking students will need to wait until the quarter begins to request entry.

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. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264 (FAX), or dso@u.washington.edu.

Tips:

- **Come to Office Hours:** You are strongly invited to consider taking advantage of Office Hours. They are designed to answer any questions you have and to help you better understand the content of the course. Even if you aren't confused, come to office hours we can talk about something else or you can help clarify things for another student. Nothing solidifies your understanding as well as explaining it to someone else does.

- **Practice and Homeworks:** Learning mathematics is in many ways similar to learning a foreign language or sports: the way to learn and improve is by *doing*! This means solving more problems than you are assigned, working on many different types of problems, explaining what you did to your classmates, and challenging your classmates to explain the reasoning behind every step. You should use the homework assignments to check whether you have really digested the material presented in class.

  Remember that internalizing the material is different from checking if you can follow the material when it's being presented. First attempt the assignment with your book and notes closed even if you will probably struggle at first. When you have made as much progress as you think you can, then put away the homework, reread your notes and book and/or come to office hours, and work through some other examples. Then you should go back to the assignment (again with your notes and book closed!) and try again, possibly repeating the process multiple times. This will probably take longer, but you will have gained a much better understanding of the material, and it will be much better preparation for the exams. Whatever method you will decide to choose *start your homework assignment early!*