Syllabus for Linear Algebra I (Math 369; 67533, Fall 2017)

Instructor: Dr. Harrison Chapman

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Office: Weber 223C

Office hours: TBD

Meeting times: MWF 1pm–1:50pm in Weber 223.

Course Webpage: http://hchapman.github.io/369

Text: *Linear Algebra* by Cherney, Denton, Thomas, and Waldron. Available free online at https://www.math.ucdavis.edu/~linear/linear-guest.pdf.

Course Overview

Linear algebra is one of the most ubiquitous and important topics in mathematics. Furthermore, it is the basis for numerous applications in engineering, scientific computing, artificial intelligence, computer graphics, statistical models, and more.

This course provides an introduction to the ideas and methods of linear algebra, which you will learn by understanding them geometrically, justifying them algebraically, and using them to solve problems in various disciplines. In addition, the course serves as an introduction to abstract reasoning and mathematical proof. It is a prerequisite for all advanced courses in mathematics and provides excellent preparation for graduate work in the natural sciences and quantitative social sciences.

Homework

We will have weekly homework assignments, posted to Canvas and due on Fridays.

Homework is an essential part of any math class, as you learn far more from *doing* mathematics. The goal of homework assignments is to reinforce and deepen your understanding of the topics we cover during class, as well as to give you the opportunity to learn and practice your mathematical communication skills and thinking. This means that homework will be graded primarily on **clarity and exposition of your procedure**, and not just on obtaining the correct answer (i.e. *show and explain your work!*).

Homework must be **stapled** and your **name must be written at the top**. You should turn in homework which is neat, legible, and organized, as I have to be able to read your homework to grade it! *If you are planning to take more higher level mathematics courses,* **you might want to try taking time this semester to learn to typeset your math work on a computer***. Talk to me if you would like advice on this!*

I cannot accept late homework, so turn in whatever you have on the due date.

I **strongly encourage** that you work together with your classmates on homework assignments (both sections will have the same assignments). Collaboration on homework means you will finish homework faster *and* practice math communication skills! However **you must turn in *your own* final write-up** and not that of your peers.

Exams

We will have three **in-class** midterm exams, *tentatively scheduled* for the **first week of October**, the **first week of November**, and the **last week of November**. Our final exam will take place in our normal meeting place and is scheduled for: Friday, December 15th from 7:30am – 9:30am.

There are no make-up exams for this course. If you must be absent from a scheduled exam **and your absence is excused with supporting documentation** (e.g. from a legal or medical professional), the portion of your course grade determined by the missing exam will be divided equally between the other exams and the final. Please let me know about any test date conflicts as they arise.

Grading

Your final grade in the course will be determined by the following breakdown:

- **Homework and Class Participation**: 25%
- **3 Midterm Exams**: 15% Each
- **Final Exam**: 30%

Attendance

You are expected to attend and participate in every class and to do the weekly homework.

Academic Integrity

As a Colorado State University student, you have agreed to abide by the University Policy on Academic Integrity (see University Policies → Students' Responsibilities → Academic Integrity/Misconduct in the General Catalog[1]) and by the Student Conduct Code. Please see http://tilt.colostate.edu/integrity/ for more on academic integrity at CSU. All academic work must meet the standards described in the Academic Integrity Policy. At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services.

Lack of knowledge of the academic honesty policy is not a viable explanation for a violation. Questions related to coursework and the academic honesty policy should be discussed with the instructor.

You are encouraged to *discuss* homework problems with your classmates, but the work you turn in **must be your own**, and in particular you should write up your final solutions independently. Remember that for all work in this course, the CSU honor pledge applies: "I have not given, received, or used any unauthorized assistance."

Additional Help

If you ever find yourself confused in this class, that's okay! There are a number of different resources that I encourage you to explore:

- I am happy to discuss anything during office hours.

- Your fellow classmates are a great resource. You are encouraged not just to work together on homework but also to ask each other general questions and study together.

- There will be opportunities for tutoring from TILT[2].

- There are lists of tutors maintained at the math department website[3] and the Colorado State University tutoring webpage[4].

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[1]http://catalog.colostate.edu/general-catalog/
[2]https://tilt.colostate.edu/learning/tutoring/
[3]http://www.math.colostate.edu/courses/Tutoring/tutoring.shtml
[4]http://tutoring.colostate.edu/

Accommodations

If you think you may need accommodations in this course due to the impact of a disability please meet with me privately during the first week of class. You should also contact the Resources for Disabled Students office[5] to confirm your eligibility for appropriate accommodations. Doing so early in the semester will help prevent unnecessary inconvenience.

Disclaimer

The course syllabus is a general plan for the course; deviations announced in class may be necessary.

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[5]http://rds.colostate.edu