Course Syllabus

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This is an advanced course on linear and multilinear algebra. The text is “Universal Linear Algebra” by Jenny Harrison and will be provided by the professor, one chapter at a time. It is nearing completion and will be edited throughout the course with the goal of publication by the end of the course. The table of contents, preface and a draft of Chapter 1 can be found under Files. Students are requested not to make available any portion of the text to others not in the class without written permission by the professor.

Professor Harrison holds office hours Tuesday and Thursday in 1015 Evans 11-11:30. But her main office hours will be held online at Slack where she maintains an active online presence. (You should receive an invitation to join Slack shortly.) Please use Slack for homework questions and comments about the textbook or lecture. If you wish to see her in her office about a private matter, please ask for an appointment. Her email is **harrison@math.berkeley.edu (mailto:harrison@math.berkeley.edu)** .

Ben Wormleighton is the class GSI and his email is **b.wormleighton@berkeley.edu (mailto:b.wormleighton@berkeley.edu)** . His office hours are Mon 3-4 pm and Wed 2-3 pm in 762 Evans.

There will be four or five 15 min quizzes starting on Thurs, Sept 12. The main goals will be to help you understand what is expected, establish steady study habits so that you can keep up, and learn to write mathematics well. This course requires a lot of work, but it should be well worth it! Make every effort not to memorize, but to understand each small step, as well as the bigger picture. Expect to return to parts you did not understand the first time. Let nothing slide by indefinitely.

Homework is mandatory. To be fully counted, a homework set must be complete (see below) and turned in by the beginning of each Tuesday's lecture, starting Sept 3. We will not accept late homework. If you wish to turn an assignment in early you may give it to the GSI, the Professor, or give it to a friend to turn in for you by the beginning of the lecture. We will not accept online submissions. However, feel free to print out your solutions in Latex. We can provide a template for using Latex, but this is not required.

Only a few problems can be graded, for the grader is limited to ten minutes for each student. You will not know ahead of time which problems will be graded. Each homework assignment is worth 15 points where 7 are for writing and 8 for logic. We will drop the two lowest scores.

How do we define "complete?" If you cannot solve a problem, then make a note to the grader where you got stuck. If your answers show an honest hard effort, you will get full credit for completion, even if you could not solve some problems. If your assignment is complete, the grader will notate this with the letter E, for "effort," next to your numerical score. If you fail to get an E twice, there is no penalty. If this happens three times, an upper bound on your course grade will be an A. If you do not turn in four complete homework sets, an upper bound will be an A-, while five misses will limit you to a B+, and so forth.

You will be responsible for all "in-text" exercises and the problems appearing at the end of each chapter. Apart from the extra problems, each assignment will start off where the last assignment ended and continue

through to the last point covered in the text by the end of Thursday's lecture. Student volunteers have often posted assignments on Slack in the past.

Please indicate if you worked on the homework with anyone else, such as another student, a tutor, a relative, a friend, or if you found the solution online. You will not be penalized for telling us this information. Sourcing your ideas is part of the honor code and it will make you feel good, too! If you get stuck on a problem, feel free to ask around for hints. Slack is a great resource. If you want to help someone, please just offer a hint to help them get around a block, but do not show them your entire solution. Above all, do not post your solution for everyone to see.

There will be a midterm on Thurs, November 7. It will be held during the normal class time in 1015 Evans Hall.

Homework will be worth a maximum of 15%, quizzes 15%, the midterm 20% and the final exam 50% of the final grade, with the understanding that homework assignments need to be complete for the maximum letter grade to be achieved.

Course Summary:

Date	Details
	Homework 1 (https://bcourses.berkeley.edu/courses/1485862/assignments/8024055)
	Homework 3 (https://bcourses.berkeley.edu/courses/1485862/assignments/8028023)
	Homework 4 (https://bcourses.berkeley.edu/courses/1485862/assignments/8029599)
	Homework 5 (https://bcourses.berkeley.edu/courses/1485862/assignments/8032837)
	Homework 6 (https://bcourses.berkeley.edu/courses/1485862/assignments/8032838)
	Homework2 (https://bcourses.berkeley.edu/courses/1485862/assignments/8026340)
	Quiz #1 (https://bcourses.berkeley.edu/courses/1485862/assignments/8023911)
	Quiz #2 (https://bcourses.berkeley.edu/courses/1485862/assignments/8025280)