

Math 54: Linear Algebra and Differential Equations

Spring 2016, MWF 10:00-11:00am, 2050 VALLEY LSB

Instructor: Xinyi Yuan

Office hours: 3:00pm-4:30pm Monday & Friday, 999 Evans

Email: yxy@berkeley.edu (This is for administrative questions only. Please come to my office hours to ask math questions.)

Textbook

Linear Algebra and Differential Equations, Second Custom Edition for UC Berkeley, by Lay, Nagle, Saff and Snider.

Prerequisites

Math 1B or equivalent materials.

Enrollments

For basic enrollment information, please visit [the course page](#) in the mathematics department website. For enrollment issues, please contact the math department undergraduate advisors:

- Thomas Brown, 965 Evans, brown@math.berkeley.edu, (510) 643-9292.
- Jennifer Sixt Pinney, 964 Evans, jensixt@math.berkeley.edu, (510) 643-4148.

Homework, Quizzes, Exams

There will be weekly homework sets, to be updated in the syllabus below. They will be collected in your section meetings on Tuesdays, graded by your section instructors, and returned to you in your section meetings on the next Tuesdays.

There will be 2 quizzes, to be taken in your discussion section. They will be graded by your section instructor and returned to you in the discussion section.

There will be two midterm exams and one final exam. The midterms will be taken in two of the regular MWF classes, graded by the section instructors and me, and returned to you in your discussion section.

Schedule and Grade Distribution

Type of Work	Date/Due Date	Location	Percentage

Homework	Tuesdays	Discussion Section	10%
Midterm I	Feb 12 Fri	2050 Valley	20%
Quiz 1	Mar 1 Tue	Discussion Section	5%
Midterm II	Mar 16 Wed	2050 Valley	20%
Quiz 2	Apr 12 Tue	Discussion Section	5%
Final	May 10 Tue	TBA	40%

Syllabus

The following table describes materials in the textbook covered by the MWF classes every week and homework related to the materials.

Weeks	Class Dates	Reading	Homework	Homework Due Date
Week 1	Jan 20, 22	1.1, 1.2	1.1: 8, 12, 18, 24 // 1.2: 4,14, 16, 30	Jan 26 Tue
Week 2	Jan 25, 27, 29	1.3, 1.4, 1.5, 1.7, 1.8	1.3: 2, 12, 14, 24 // 1.4: 4, 8, 12 // 1.5: 10, 12, 16 // 1.7: 6, 18 // 1.8: 2, 4	Feb 2 Tue
Week 3	Feb 1, 3, 5	1.9, 2.1, 2.2	1.9: 2, 6, 18 // 2.1: 2, 4, 6, 10, 20 // 2.2: 2, 8, 10, 14, 32	Feb 9 Tue
Week 4	Feb 8, 10	2.3, 3.1, 3.2, 3.3,	2.3: 4, 6, 8, 20 // 3.1: 10, 12, 14 // 3.2: 8, 22, 26 // 3.3: 6, 14	Feb 16 Tue
	Feb 12 Fri		Midterm I (covers Chapters 1-3)	solution
Week 5	Feb 17, 19	4.1, 4.2	4.1: 2, 6, 8, 12, 30 // 4.2: 4, 12, 16, 20, 24, 26	Feb 23 Tue
Week 6	Feb 22, 24, 26	4.3, 4.4, 4.5, 4.6	4.3: 14, 20, 22 // 4.4: 8, 10, 14 // 4.5: 6, 14, 20 // 4.6: 4, 6, 18	Mar 1 Tue
	Mar 1 Tue		Quiz 1 (covers 4.1-4.6)	
Week 7	Feb 29, Mar 2,4	5.1, 5.2, 5.3, 5.4	5.1: 4, 16, 22(a)(b)(d)(e) // 5.2: 14, 16, 20, 22 // 5.3: 4, 10, 18, 22 // 5.4: 6, 16	Mar 8 Tue
Week 8	Mar 7, 9, 11	6.1, 6.2, 6.3	6.1: 10, 14, 20, 24 // 6.2: 10, 12, 14, 24 // 6.3: 4, 8, 14, 22	Mar 15 Tue
Week 9	Mar 14, 18	6.4, 6.5	6.4: 4, 12, 16, 18 // 6.5: 4, 5, 10, 18, 19	Mar 29 Tue
	Mar 16 Wed		Midterm II (covers 4.1-6.4)	solution
		In the following, all sections except 7.1 are in Part Two of the textbook.		
Week 10	Mar 28,30, Apr 1	7.1, 4.2	7.1: 14, 20, 26, 28 // 4.2: 2, 14, 28, 38, 44	Apr 5 Tue
Week 11	Apr 4, 6, 8	4.3, 4.4	4.3: 6, 20, 22, 26 // 4.4: 12, 14, 16, 26, 28, 30, 32, 34	Apr 12 Tue
	Apr 12 Tue		Quiz 2 (covers (Part One: 6.5, 7.1) and (Part Two: 4.2, 4.3, 4.4))	
Week 12	Apr 11, 13, 15	4.5, 4.6, 6.1	4.5: 2, 8, 18, 20, 30 // 4.6: 4, 10, 12 // 6.1: 16, 20, 22	Apr 19 Tue
Week 13	Apr 18, 20, 22	6.2, 9.1, 9.4	6.2: 2, 14, 18, 20 // 9.1: 6, 8, 12 // 9.4: 8, 12,	Apr 26 Tue

			20, 24	
Week 14	Apr 25, 27, 29	9.5, 9.6, 9.7, 9.8		Tue
	May 10 Tue		Final	

Office Hours

My office hours are 3:00pm-4:30pm MonFri, 999 Evans Hall. The following are the emails and office hours of the section instructors:

- o Shishir Agrawal(sagrawalx@berkeley.edu), 10:00-12:00 Tue, 1043 Evans
- o Rahul Dalal (dalal@berkeley.edu), 12:00-1:00 MonWed, 826 Evans
- o Alexis Drouot (adrouot@berkeley.edu), 11:00-1:00 Mon, 835 Evans
- o Jonathan Gleason (jgleason@berkeley.edu), 18:30--19:30 TueThu, 87 Evans
- o Kyle Miller (kmill@berkeley.edu), 4:00-5:00 Mon, 1:00-2:00 Fri, 1066 Evans
- o Dylan Yott (dyott@math.berkeley.edu), 10:00-11:00 TueThu, 1044 Evans
- o Qiaochu Yuan (qchu@math.berkeley.edu), 3:30-5:30 Thu, 1041 Evans
- o Shenghan Zhang (zhangsh92@berkeley.edu), 11:10-12:10 Tue, 11:10-12:10 Thu, 836 Evans

A student is also welcome to attend office hours of section instructors who do not teach the student's discussion section.

Special Accommodations

All students requesting special accommodations need to be registered with the Disabled Student Services and need to provide a letter indicating the necessary accommodations. Because it is very difficult to arrange accommodations at the last minute, all requests must be received at least 10 days prior to the exams.