

Math 2331 – 17040 (2018 Summer IV)

Linear Algebra*

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Prerequisites

Credit for or concurrent enrollment in MATH 1432.

Textbook

Linear Algebra and Its Applications, 4th Edition, by David C. Lay.
ISBN10: 0321385179 ISBN13: 9780321385178

Course content

Linear Algebra, rich in applications within mathematics and to many other disciplines, is potentially the most interesting and worthwhile undergraduate mathematics course you will complete. For many of you this is the first course to begin bridging the gap between concrete computations and abstract reasoning. Later in your career, computers will do the calculations, but you will have to choose the calculations, know how to interpret the results, and then explain the results to other people. Understanding the notions of vector spaces, linear (in)dependence, dimension, and linear transformations will help you make sense of matrix manipulations at a deeper level, clarifying the underlying structure.

Schedule

The following is a tentative schedule, that I will update throughout the semester. Generally we will cover two sections per day. Lecture notes are posted section by

*This course syllabus provides a general plan for the course; deviations may be necessary.

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Table 1: Syllabus

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 7/9-7/13	§1.1 §1.2	§1.3 §1.4	§1.5 §1.7	§1.8 §1.9	§2.1
Week 2 7/16-7/20	HW1 §2.2	§2.1-keys §2.2-keys	§2.3 §2.3-keys Review	Exam 1	§3.1 §3.2
Week 3 7/23-7/27	HW2 §4.1 §4.2	§4.3 §4.4	§4.5 §4.6	§4.1-keys — §4.6-keys Review	Exam 2 HW3
Week 4 7/30-8/3	§5.1 §5.2	§5.3 §5.1-keys — §5.3 keys	HW4 §6.1	§6.2 §6.3	§6.1-keys — §6.3 keys Review
Week 5 8/6-8/10	Exam 3 HW5	No Class	No Class	No Class	No Class

section on the course homepage. I recommend you print them out or review them before or after lecture, allowing you to focus on the material rather than copying things down.

We will cover sections §1.1–§1.5, §1.7–§1.9, §2.1–§2.3, §3.1–§3.2, §4.1–§4.6, §5.1–§5.3, §6.1–§6.3

Withdrawal

- *Thursday July 12, 2018*: the last day to drop a course or withdraw without receiving a grade.
- *Monday July 30, 2018*: the last day to drop a course or withdraw with a ‘W’.

Academic Honesty

Plagiarism and cheating are serious offenses. The University policies on scholastic dishonesty will be strictly enforced (see Catalog/Student Handbook).

Attendance Policy

A student is considered present only if he/she has arrived on time and remains until the class is dismissed. Coming to class late or leaving early is disruptive and thus discouraged. The instructor may drop a student for excessive absences (see

Catalog/Student Handbook). Those who have excellent attendance but are on a grade borderline will get extra consideration at the end of the class.

Cell Phones and Electronic Devices

During class and exam periods, all cell phones and other electronic devices must be turned off and kept in a secure location away from the students immediate view. The use of laptop computers is only permitted if students are using the computers to take notes or for purposes related to the class.

Exam Dates

As given in Table 1, there will be three one-hour in class exams on the dates

Exam 1 (§1.1–§1.5, §1.7–§1.9, §2.1–§2.3)	Thursday, July 19
Exam 2 (§3.1–§3.2, §4.1–§4.6)	Friday, July 27
Exam 3 (§5.1–§5.3, §6.1–§6.3)	Monday, August 6

Books and notes will not be allowed on all exams. There will be no make-up exams except in an extreme verifiable emergency.

Grading

There will be a total of 1000 points possible for this course. The points are distributed as follows

Three Exams	$600 = 200 \times 3$
Five Homework Assignments	$400 = 80 \times 5$

Your total accumulated points will determine your grade

94% – 100%	A
90% – 93 %	A-
87% – 89 %	B+
84% – 86 %	B
80% – 83 %	B-
77% – 79 %	C+
74% – 76 %	C
70% – 73 %	C-
67% – 69 %	D+
64% – 66 %	D
60% – 63 %	D-
0% – 59%	F

Homework

All homework must be submitted online, by uploading your PDF file to Blackboard. Submissions on paper will not be accepted. All pages of your homework assignment must be in a single PDF file. Only PDF format will be accepted, not JPEG, ZIP, etc. It is your responsibility to make sure uploaded files are correct and legible. Any deviation from these instructions will result in a grade of ZERO. Make sure that you upload your homework in time for the deadlines. You may, with impunity, submit up to two assignments up to one class period (not one week) beyond their due date. Subsequent submissions will incur penalties in increments of 10%. Homework submitted later than one class period beyond its due date will not be accepted without a written excuse. Homework scores can not be changed one week after they have been returned. Only a subset of the problems collected will be graded. You are encouraged to discuss homework with your classmates. However, you are expected to individually write up your solutions.

Student Disability Accommodations and Services

The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students who have a disability. In accordance with Section 504 and ADA guidelines, University of Houston strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please visit The Center for Students with Disabilities (CSD) website at <http://www.uh.edu/csd/> for more information.

Counseling and Psychological Services (CAPS) Statement

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach (CAPS) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the “Let’s Talk” program, a drop-in consultation service at convenient locations and hours around campus.

Table 2: Homework

	Assigned Exercises (will be collected)		Practice Exercises (will not be collected)	
Homework 1 Due on 7/16	§1.1	4,10,14,24	§1.1	6,12,16,30
	§1.2	2,10,22,26	§1.2	4,18,24,30
	§1.3	6,12,24,32	§1.3	8,18,26,34
	§1.4	2,10,18,30	§1.4	8,14,24,34
	§1.5	4,12,24,32	§1.5	10,14,28,40
	§1.7	2,14,26,36	§1.7	8,20,32,38
	§1.8	2,8,18,32	§1.8	6,12,22,36
	§1.9	4,14,22,34	§1.9	8,20,24,36
	§2.1	2,10,18,30	§2.1	4,16,24,34
Homework 2 Due on 7/23	§2.2	6,12,20,34		
	§2.3	4,16,24,34	§2.2	10,16,38
	§2.2+	13,18,19,21,22,24,25,26	§2.3	12,20,28,40
	§2.3+	11,12,13,14,18,20,22,35	§3.1	10,20,28,38
	§3.1	4,16,24,32	§3.2	8,22,30,40
	§3.2	4,18,28,36		
Homework 3 Due on 7/27	§4.1	2,8,12,28	§4.1	6,10,24,32
	§4.2	2,18,26,32	§4.2	10,24,30,34
	§4.3	8,20,26,34	§4.3	16,22,30
	§4.4	4,14,22,28	§4.4	8,16,24,32
	§4.5	6,14,24,30	§4.5	10,20,26,32
	§4.6	2,12,22,30	§4.6	6,18,28,34
Homework 4 Due on 8/1	§5.1	4,14,20,28	§5.1	8,16,22,30
	§5.2	6,16,20,24	§5.2	10,18,22,26
	§5.3	4,16,22,26	§5.3	12,20,24,30
Homework 5 Due on 8/6	§6.1	4,10,14,20	§6.1	6,12,18
	§6.2	6,12,18,24	§6.2	4,10,16,22
	§6.3	4,8,14,19,20,21,22,23,24	§6.3	2,10,16