

MAS 212 Linear Algebra Syllabus

Instructor

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Office Hours

TBA

Course Overview

Review of basic linear algebra leading to rational and Jordan forms.

This course also gives proofs of the results and is a very theoretical course providing background to higher level abstract mathematics and applied mathematics. You will also learn to prove some elementary linear algebra results.

Required Text

Linear Algebra 2nd edition, Prentice hall, *Hoffman and Kunz*

Class structure

There will be a quiz in the beginning of the class for 20 minutes. It will have two parts: review part and the preview part. The videos and lecture notes are at the KLMS. You are automatically joined at the course site at the KLMS. Most are uploaded at the KLMS. These will be proctored by Zoom. The proctoring method will be announced in the KLMS.

After quiz, we will have discussions for the rest of the class. We will divide into teams of 4-5 students. We will provide the discussion problems for each team. Your team will solve the problem and present it to the class by Zoom. Groups will be finalized by the 3rd week. You can change the group at a later time but the team scores will be carried over.

Resources

These are in the KLMS (Note we have an upgraded Moodle system in 2021)

Course Schedule

Week	Subject	Quizzes	Videos and notes
Week 1 Group division	1.1.-1.6 reviews of fields, matrices	No quiz	Videos for Lectures 1,2,3. Watch these at classes. Also, read notes and the book materials.
Week 2	2.1-2.6.	1.1.-1.6 review 2.1-2.6 preview	Videos in KLMS. Watch these before class and read notes and the book.

Week	Subject	Quizzes	Videos and notes
Week 3 Finalize the group division	3.1-3.3	2.1.-2.6 review 3.1.-3.3 preview	Same as above
Week 4	3.4.-3.6	3.1.-3.3 review 3.4.-3.6 preview	Same as above
Week 5	4.1-4.3	3.4.-3.6 review 4.1-4.3 preview	Same as above
Week 6	4.4-4.5	4.1-4.3 review 4.4-4.5 preview	Same as above
Week 7	5.1-5.4	4.4-4.5 review 5.1-5.4 preview	Same as above
Week 8	No classes, midterm period		
Week 9	6.1.-6.2	5.1.-5.4 review 6.1.-6.2 preview	Same as above
Week 10	6.3.-6.4 (skip 6.5)	6.1.-6.2. review 6.3.-6.4 preview	Same as above
Week 11	6.6-6.8	6.3.-6.4 review 6.6.-6.8 preview	Same as above
Week 12	7.1.-7.2	6.6.-6.8 review 7.1-7.2 preview	Same as above
Week 13	7.3.-7.4	7.1.-7.2 review 7.3.-7.4 preview	Same as above
Week 14	8.1.-8.3	7.3.-7.4 review 8.1-8.3 preview	Same as above
Week 15	8.4.-8.5 (June 4 th class Monday)	8.1.-8.3 review 8.4-8.5 preview	Same as above
Week 16	No classes, final period		

Homework Policy

After discussions, one person of the team must write up the report and upload it to the provided folder in the OneNote Cloud within 7 days or so.