

Syllabus for Math 107: Introduction to Linear Algebra

Koç University, Spring 2018

Instructors, their offices & office hours:

- Doğan Bilge, Sciences Building 111, Tuesdays & Thursdays 14:00-14:30 or by appointment
- Haydar Göral, Sciences Building 111, Mondays & Wednesdays 16:00-16:50
- Ali Mostafazadeh, Sciences Building 154, Tuesdays & Thursdays 10:00-10:50

Web address: TBA

Textbook: D. C. Lay, S. R. Lay, and J. J. McDonald, Linear Algebra and its Applications, 5th Edition.

Supplementary Text: S. Lang, Introduction to Linear Algebra, 2nd Edition.

Topics to be covered: Systems of linear algebraic equations, matrices, vector spaces, eigenvalue problem, inner-product spaces, and orthogonality

Objective: To provide the student with a working knowledge of the basic concepts and methods of linear algebra. This includes matrices and their application in solving linear systems of algebraic equations, vector spaces and linear transformations, eigenvalue problem for matrices and linear transformations, and inner-product spaces

Homeworks: Suggested homework problems will be assigned regularly but not collected for grading. Students are advised to solve these problems in order to gain a better understanding of the subject.

Evaluation method: Students' progress will be evaluated according to their performance in two midterm and one final exams. Each of the midterm exams will contribute as 30% to the total grade while the final exam will have a 40% weight.

Eligibility to take the Final Exam: Students will be permitted to take the final exam, only if they do not miss more 10 lectures and the average of their midterm exam grades is not below 25 out of 100. Students who are not eligible to take the final exam will not be allowed to take the remedial exam.

Attendance and bonus points: Students are advised to attend all the lectures and PSs. If a student attends $20+n$ lectures, n bonus points will be added to his/her final exam grade. Students who miss more than 10 lectures will automatically fail the course unless if they have a valid excuse (a medical report from the Health Center or an Excuse Absence Form signed by one of the Deans.)

Make-ups: The final exam will be the make-up exam for the missed midterm exams. If a student takes the final as the make-up for a missed midterm exam and as a result the average of his (her) grades for the midterms is below 25, the final exam (s)he had taken will serve only as the make-up for the missed midterm(s) and not as the final exam. If a student is eligible to take the final exam but misses it and has a valid excuse, (s)he will be given a make-up exam.

Suggested method of study: Reading the lecture notes and the books is necessary for grasping the subject, but it is by no means sufficient. Students must try to reproduce the definitions and proofs of the theorems, and apply the techniques to other problems.

Academic dishonesty: If a student is caught cheating in an exam, (s)he will be punished according to the YÖK regulations. These consist of one or two semesters of prohibition