

Overview. Linear Algebra is one of the basic subjects that is widely used in computer science, engineering, chemistry, biology, economics, actuarial sciences and business. The fundamental question of this subject is how to solve various systems of linear equations. The primary aim of this course is to provide applications that are most likely to have practical values to the students with the modest background rather than theoretical understanding. Among other things, we will cover matrix algebra including the formula for the inverse matrix, the basics of linear transformations, diagonalization and three useful theorems on decomposition of matrices, i.e., the LU -decomposition, the QR -decomposition and the singular value decomposition.

Sec.	Time & Place	Instructor
A	MW 09:00 / E11-301	Prof. Jin, Gyo Taek (trefoil@kaist.ac.kr, Ext2724, E6-1, 4404)
B	MW 13:00 / E11-301	Prof. Rooney, Brendan (brooney@kaist.ac.kr, Ext 2756, E2, 3203)
C	MW 14:30 / E11-301	Prof. Choi, Suhyoung (shchoixk@kaist.ac.kr, Ext 2732, E6-1, 4403)
D	TTh 13:00 / E11-301	Prof. Shin, Sujin (sjs@kaist.ac.kr, Ext 2713, E6-1, 3406)

Course Coordinator. Jin, Gyo Taek

Head TA. TBA

Matlab TA. TBA

Textbook. *Contemporary Linear Algebra*, H. Anton and R.C. Busby, John Wiley & Sons, Inc.

Course Site. <http://klms.kaist.ac.kr>.

Weekly Schedule. (Each week starts on Wednesday.)

Week	Topics	Remark	Week	Topics	Remark
3/02–3/08	2.1–2, 3.1		4/27–5/03	7.1–3	
3/09–3/15	3.2–4		5/04–5/10	7.4–5	Children's Day 5/5
3/16–3/22	3.5–6		5/11–5/17	7.6–8	
3/23–3/29	3.7, 4.1		5/18–5/24	7.9–11	
3/30–4/05	4.2–4		5/25–5/31	8.1–2	
4/06–4/12	6.1–2		6/01–6/07	8.3–4	Memorial Day 6/6
4/13–4/19	6.3–4	Election Day 4/13	6/08–6/14	8.6–7	
4/20–4/26	Midterm Exam		6/15–6/21	Final Exam	

Exams. There are two exams, midterm and final. Anyone who misses one or both of these exams will fail the course.

Homework. Exercise problems selected as homework will be posted at the course web site together with their solutions. You do not have to hand in your homework and instead you practice with them to prepare for quizzes and exams.

Recitation and Quiz. There will be one-hour recitation class on each week except the first week. Students must register for one of the recitation classes during the first week.

MATLAB. Every week, MATLAB problems are assigned. Students are required to submit MATLAB assignments to their TAs, and there will be MATLAB problems in the midterm and final exams.

Course Grade. The course grades will be based on Midterm Exam (30%), Final Exam (40%), Quizzes (20%) and Attendance (10%).