

Taibah University
Department of Mathematics
Syllabus of Math 241 – Linear Algebra I
Semester I, 2017 – 2018

Coordinator: Prof. Mohammad Samman

Course: Math 241

Title: Linear Algebra (1)

Text Book: Elementary Linear Algebra with Supplemental Applications, 10th Edition, H. Anton & C. Rorres.

Week	Date	Section	Topics
1 + 2	September 17-28	1.1 1.2	Introduction to Systems of Linear Equations Gaussian Elimination
3 + 4	October 01-12	1.3 1.4	Matrices and Matrix Operations Inverses: Algebraic Properties of Matrices
5	October 15-19	1.5 1.6	Elementary Matrices and a Method for finding A^{-1} More on Linear Systems and Invertible Matrices
6	October 22-26	1.7 2.1	Diagonal, Triangular, and Symmetric Matrices Determinants by Cofactor Expansion
Exam I Thursday, November 02, 2017			
7	Oct. 29-02 Nov.	2.2 2.3	Evaluating Determinants by Row Reduction Properties of Determinants; Cramer's Rule
8	November 05-09	4.1 4.2	Real Vector Spaces Subspaces
9	November 12-16	4.3 4.4	Linear Independence Coordinates and Basis
10	November 19-23	4.5	Dimensions
11	November 26-30	4.6	Change of Bases
12	December 03-07	4.7	Row Space, Column Space, and Null Space
Exam II Sunday, December 10, 2017			
13	December 10-14	4.8	Rank, Nullity, and the Fundamental Matrix Spaces
14	December 17-21	4.9	Matrix Transformations from \mathbb{R}^n to \mathbb{R}^m
15	December 24-28	4.10	Properties of Matrix transformations

Grading Policy:

Homework + Quizzes	20%
Exam I	20% Thursday 2/11/2017
Exam II	20% Sunday 10/12/2017
Final Exam	40% (Comprehensive)

Office hours: 10:30 – 12:10pm (Sunday + Wednesday) and 12:10 – 1:00pm (Tuesday + Thursday).

Email: msamman@kfupm.edu.sa