

Math - 107
Vectors and Matrices (3+0) credit-hours.
Second Semester 1434– 1435 H
Weekly Course Details

Linear Algebra

WEEK 1,2

System of Linear Equations

WEEK 3

Matrices

WEEK 4

Determinant

WEEK 5

Minor and cofactors, Inverse by cofactors and
Cramer's Rule

Vector and Several Variables Calculus

WEEK 6, 7, 8

Vectors, dot and cross products,
Equations of line and plane and surfaces,
Cylindrical and spherical co-ordinates.

WEEK 9, 10

Vector-Valued Functions.

WEEK 11,12,13

Functions of Several Variables and Differentiation.

WEEK 14

Extrema of Functions of Several Variables,
Constrained Optimization and Lagrange Multipliers.

WEEK 15

Revision WEEK

Textbook(s)/ Additional Material

1. Linear Algebra by H. Anton (any book on Linear Algebra from Library 512.5)
2. Calculus by Swokowski, Olinick and Pence, 6th Ed, PWS publishing Co. (any book on Calculus from Library 515.15)

Additional Material:

Lecture Notes on

Linear Algebra, Vector and Several Variables Calculus
by Khawaja Zafar Elahi

Midterm Examination I: Sunday 22.04.1432

Material covered in 1st to 6th week

Midterm Examination II: Sunday 05.06.1432

Material covered in 7th to 13th week

For announcement regarding course and for previous Exam papers,

...

check web page

<http://fac.ksu.edu.sa/balmohsen/node/42870>