King Saud University Math Department 2st Semester 1445 H

Math 244 Contents

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Matrices - Matrices and Matrix Operations - Elementary Row Operations - Inverse of Matrix - Special Matrices	Inner Product Spaces (Chapter 6) - Definition of Inner Product - Orthogonality - Orthonormal Basis
Determinants (Chapter 2) - Definition of Determinant - Properties of Determinants - The Adjoint Matrix	Linear Transformations (Chapter 8) - Basic Properties - Kernel and Image of Linear Transformation - Matrix of Linear Transformation
Systems of Linear Equations (Chapter 1) - Gauss and Gauss–Jordan Methods - Homogeneous systems of linear equations - Cramer's Rule	Eigenvalues and Eigenvectors & Diagonalization (Chapter 7) -Eigenvalues and Eigenvectors -Diagonalization
Vector Spaces (Chapter 4) - Definition of a Vector Space - Subspaces - Linear Combination and Spanning Sets - Linear Dependence & Linear Independence - Basis and Dimension - Coordinates and Change of Basis - Rank of the Matrix	

Textbook: Elementary Linear Algebra (Anton and Rorres), 11th edition
https://industri.fatek.unpatti.ac.id/wp-content/uploads/2019/03/037-Elementary-Linear-Algebra-Applications-Version-Howard-Anton-Chris-Rorres-Edisi-1-2013.pdf
Evaluation: 1st Midterm: 25%- 2nd Midterm : 25% - Exercise: 10% - Final Exam: 40%

Exam Dates:

1st Exam: xx/xx/2018 7:00 – 8:30 PM
2nd Exam: xx/xx/2018 7:00 – 8:30 PM

Calculators are Not Allowed in Exams