Math 244 Contents

Matrices	Inner Product Spaces
- Matrices and Matrix Operations - Elementary Row Operations - Inverse of Matrix - Special Matrices	- Definition of Inner Product - Orthogonality - Orthonormal Basis
Determinants	Linear Transformations
- Definition of Determinant - Properties of Determinants - The Adjoint Matrix	- Basic Properties - Kernel and Image of Linear Transformation - Matrix of Linear Transformation
Systems of Linear Equations	Eigenvalues and Eigenvectors & Diagonalization
- Gauss and Gauss–Jordan Methods - Homogeneous systems of linear equations - Cramer's Rule	-Eigenvalues and Eigenvectors -Diagonalization
Vector Spaces - 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
Evaluation: 1ˢᵗ Midterm: 25% - 2ⁿᵈ Midterm : 25% - Exercise: 10% - Final
Exam:40% First Midterm : TBA
Second Midterm : TBA

Calculators are Not Allowed in Exams