

MA 35100 - 061
(Tentative Weekly Readings/Sections)

Week # 1 Aug 19 - Aug 23:

- § 1.1 - *Basic Matrix Theory and NOTATION*
- § 3.2 - *Matrix Multiplication; Partitioned matrices*

Week # 2 Aug 26 - Aug 30:

- § 1.2 - *Linear Systems; augmented matrices, consistent/inconsistent systems; ERO; row equivalence*
- § 1.3 - *Gaussian Elimination Method (GEM), Gauss-Jordan Elimination Method (GJEM); echelon form; REF; RREF*

Week # 3 Sept 4 - Sept 6:

- § 2.1 - *Independence/Dependence; span; linear combination; IDE*

Week # 4 Sept 9 - Sept 13:

- § 2.1 - *Independence/Dependence; span; linear combination; IDE* — continued
- **Quiz # 1** (See Blackboard for topics list)

Week # 5 Sept 16 - Sept 20:

- § 2.1 - *Minimal spanning sets (basis)*
- § 1.4 - *Column Space and Row Space of a matrix A ; Null Space of a matrix A*
- § 1.1 - *General Vector Spaces; table of common vector spaces*
- § 1.4 - *Subspaces of vector spaces*

Week # 6 Sept 23 - Sept 27:

- § 1.4 - *Subspaces (cont'd)*
- Exam Review
- **EXAM # 1** on September 27 (See Blackboard for topics list, practice exams, and other resources)

Week # 7 Sept 30 - Oct 4:

- § 1.4 - *Subspaces (cont'd)*
- § 2.1 - *Basis (minimal spanning set)*
- § 2.1 - *Basis for Column Space, Row Space, and Null Space of a matrix A*
- § 2.2 - *Dimension of a Vector Space*

Week # 8 Oct 9 - Oct 11:

- § 2.1 - *Basis (minimal spanning set) (cont'd)*
- § 2.1 and § 2.2 - *Dimension; Basis for Column Space, Row Space, and Null Space of a matrix A*
- § 2.3 - *Rank of a matrix A; Rank-Nullity Thm*
- § 2.3 - *Some results/applications of Rank*

Week # 9 Oct 14 - Oct 18:

- § 2.3 - *Rank, Rank-Nullity Thm; Some results/applications of Rank (cont'd)*

Week # 10 Oct 21 - Oct 25:

- § 3.1 - *Transformations, Linear Transformations, Matrix transformations*
- § 3.1 - **Matrix Representation Theorem**
- § 3.2 - *Matrix Multiplication - (Already Done)*
- § 3.3 - *Inverse of a Matrix*

Week # 11 Oct 28 - Nov 1:

- § 3.5 - *Matrix Representation for general Linear Transformations*
 - § 3.4 - *LU Factorization*
 - § 4.1 - *Determinants; Properties of determinants*
-