Math 60-Rumbos **Spring 2009**

Tentative Schedule of Lectures and Examinations

Date		Topic
W	Jan. 21	Introduction: n-dimensional Euclidean space
F	Jan. 23	Linear space structure in Euclidean space
M	Jan. 26	Linear combinations and spans
W	Jan. 28	Linear independence
F	Jan. 30	Linear independence and bases
M	Feb. 2	More on bases
W	Feb. 4	On linear transformations between Euclidean spaces
F	Feb. 6	Matrix representation of a linear transformation
M	Feb. 9	Matrix representation of a linear transformation (continued)
W	Feb. 11	Matrix algebra
F	Feb. 13	Matrix algebra (continued)
M	Feb. 16	Function spaces
W	Feb. 18	Spaces of polynomials
F	Feb. 20	Vector spaces
M	Feb. 23	Subspaces
W	Feb. 25	Subspaces (continued): Spans and generating sets
F	Feb. 27	Generating sets (continued): Linear independence and bases
M	Mar. 2	Bases and Dimension
W	Mar. 4	Review
F	Mar. 6	**Exam 2**
M	Mar. 9	Linear transformations
W	Mar. 11	The dimension theorem for linear transformations
F	Mar. 13	Composition of linear transformations and matrix multiplication
M	Mar. 16	*Spring Recess*
W	Mar. 18	*Spring Recess*
F	Mar. 20	*Spring Recess*

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Date		**Topic**
M	Mar. 23	Linear transformations and matrices
W	Mar. 25	Invertible matrices
F	Mar. 27	*Cesar Chavez Day (no class)*
M	Mar. 30	Constructing Inverses (Part I): Invertible linear transformations
W	Apr. 1	Constructing Inverses (Part II): Applications to systems of linear equations
F	Apr. 3	The determinant of square matrices
M	Apr. 6	Properties of the determinant function
W	Apr. 8	The eigenvalue problem
F	Apr. 10	The eigenvalue problem (continued)
M	Apr. 13	Similarity and diagonalization
W	Apr. 15	Diagonalization (continued)
F	Apr. 17	Geometric transformations
M	Apr. 20	Geometric transformations (continued)
W	Apr. 22	Symmetric matrices
F	Apr. 24	Orthogonal matrices
M	Apr. 27	The principal axis theorem
W	Apr. 29	Review
F	May 1	**Exam 2**
M	May 4	Review
W	May 6	Review
Th	May 14	**Final Exam**