Math 423/523 - Summer session 2009 Professor: Anders Linnér
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Grades: 600 points total (T: 100, Final: 200, Quizzes+Homework+Attendance: 300)
Grade cutoffs: A:510 B: 450 C: 390 D: 330

Text: Linear Algebra by Friedberg (4'th edition)
Recommended reading: Real Linear Algebra by Fekete (based on Steenrod's notes)

1	Jun. 15	Vector Spaces and Subspaces
	Jun. 16	Independence and Bases
	Jun. 17	Linear Transformations, Null Spaces and Ranges
	Jun. 18	Matrices, Composition and Matrix Products
2	Jun. 22	Inverses and Isomorphisms
	Jun. 23	Change of Coordinates
	Jun. 24	Dual Spaces
	Jun. 25	Elementary Matrix Operations and Rank
3	Jun. 29	Systems of Linear Equations - Theory
	Jun. 30	Systems of Linear Equations - Computations
	Jul. 01	Determinants and their Properties
	Jul. 02	**No classes - 4'th of July break**
4	Jul. 06	Eigenvalues and Eigenvectors
	Jul. 07	Diagonalizing
	Jul. 08	Invariant Subspaces and Cayley-Hamilton
	Jul. 09	Inner products and Norms
5	Jul. 13	Gram-Schmidt and Orthogonal Complements
	Jul. 14	Adjoints
	Jul. 15	Normal and Self-Adjoint
	Jul. 16	Unitary and Orthogonal
6	Jul. 20	Orthogonal Projections and the Spectral Theorem
	Jul. 21	Review
	Jul. 22	**Midterm Exam**
	Jul. 23	Singular Value Decomposition and Pseudoinverses
7	Jul. 27	Bilinear and Quadratic Forms
	Jul. 28	The Geometry of Orthogonal Operators
	Jul. 29	Generalized Eigenvectors
	Jul. 30	Jordan Canonical Form
8	Aug. 03	The Minimal Polynomial
	Aug. 04	Review
	Aug. 05	Review
	Aug. 06	**Final Exam**