Syllabus for 18.06 Linear Algebra, Fall 2004

The two midterm exams will be held in Walker during lecture hours: closed book

W	9/8	The Geometry of Linear Equations	1.1–2.1	
F	9/10	Matrix multiplication	2.4	
M	9/13	Solving sytems with elimination	2.2-2.3	
W	9/15	Inverses	2.5	(PS1 due)
F	9/17	LU and LDU factorization	2.6	
M	9/20	Permutations and PA=LU	2.7	
W	9/22	Vector Spaces and subspaces	3.1	(PS2 due)
F	9/24	Nullspace of A	3.2	
M	9/27	Row reduced form	3.3	
W	9/29	All solutions to Ax=b	3.4	(PS3 due)
F	10/1	Basis and dimension	3.5	
M	10/4	Four fundamental subspaces	3.6	
W	10/6	Orthogonality	4.1	(PS4 due)
F	10/8	Review		
M	10/11	COLUMBUS DAY.		
W	**10/13**	**Quiz 1**	**1-4.1**	
F	10/15	Graphs and networks	8.2	
M	10/18	Projection and subspaces	4.2	
W	10/20	Least-squares	4.3	(PS5 due)
F	10/22	Orthogonal matrices and Gram-Schmidt	4.4	
M	10/25	Linear transformations	7.1-7.2	
W	10/27	Change of basis	7.3	(PS6 due)
F	10/29	Properties of determinants	5.1	
M	11/1	Formulas for determinants	5.2	
W	11/3	Applications of determinants	5.3	(PS7 due)
F	11/5	Complex numbers; eigenvalues	10.1 and 6.1	
M	11/8	Eigenvalues and eigenvectors ¡cont'd¿	6.1	
W	11/10	Diagonalization	6.2	(PS8 due)
F	11/12	Review		
M	**11/15**	**Quiz 2**	**1-6.2, 7.1-7.3, 8.2**	
W	11/17	Markov matrices	8.3	
F	11/19	Complex matrices	10.2	
M	11/22	Differential equations	6.3	
W	11/24	Symmetric matrices	6.4	(PS9 due)
F	11/26	THANKSGIVING		
M	11/29	Positive definite matrices	6.5	
W	12/1	Matrices in engineering	8.1	(PS10 due)
F	12/3	Singular value decomposition	6.7	
M	12/6	Similar matrices and the Jordan form	6.6	
W	12/8	Review and what's next		
M-F	**12/13-17**	**Final Exam**		