

MATH 211 L04.

T. Th. 9:30-10:45

Winter 2010

Instructor: Jędrzej Śniatycki, MS 320. Office hours (**by appointment**): Tuesday 14:00 - 15:00 and Thursday 15:00 - 16:00.

Text: Keith Nicholson, Elementary Linear Algebra, McGraw-Hill, Second Edition.

Assignments: 10 webwork homework assignments. Taken together, the best 10 will count for 10% of the final grade.

Quizzes: Three 30 min. quizzes written in the labs. Each quiz counts for 8% of the final grade. Dates of quizzes to be determined.

Midterm test: One 75-minute term tests written during the lecture time. It will count for 16% of the final grade.

Final Exam (3 hours) scheduled by the Registrar. Credit: 50%

Detailed Lecture Schedule

January

Day	Date	Section	Topics
Tuesday	Jan. 12	Sec. 1.2	System of linear equations
Thursday	Jan. 14	Sec. 1.2..	Gaussian elimination, Rank
Tuesday	Jan. 19	Sec. 1.3	Homogeneous systems
Thursday	Jan. 21	Sec. 1.1 & 1.4.1-2	Matrices
Tuesday	Jan. 26	Sec. 1.4.3-1.4.4	Matrices and linear equations
Thursday	Jan. 28	Sec. 1.5.1 - 1.5.2	Matrix Inverses

February - April

Day	Date	Section	Topics
Tuesday	Feb. 2	Sec. 1.5.4 - 1.5.5	Matrix inversion
Thursday	Feb. 4	Sec. 2.1 & 2.2.1	Determinants
Tuesday	Feb. 9	Sec. 2.2.2 - 2.2.3	Adjoint of a matrix - Cramer's rule
Thursday	Feb. 11	Sec. 1.6.1 - 1.6.2	Elementary matrices
Tuesday	Feb. 16	Reading Week	No lectures
Thursday	Feb. 18	Reading Week	No lectures
Tuesday	Feb. 23	Sec. 2.3.1	Population dynamics
Thursday	Feb. 25	Midterm	All material covered till Reading Week
Tuesday	March 2	Sec. 2.3.1 - 2.3.2	Eigenvalues and eigenvectors
Thursday	March 4	Sec. 2.3.3	Diagonalization
Tuesday	March 9	Sec. 2.5.1 - 2.5.3	Complex numbers
Thursday	March 11	Sec. 2.5.4 - 2.5.5	Complex algebra
Tuesday	March 16	Sec. 2.5.6	Polar Form
Thursday	March 18	Sec. 3.1	Geometric vectors
Tuesday	March 23	Sec. 3.2	Dot product - Projections
Thursday	March 25	Sec. 3.3.1 - 3.3.2	Lines
Tuesday	March 30	Sec. 3.3.3	Planes
Thursday	April 1	Sec. 3.3.4 - 3.5	Cross product
Tuesday	April 6	Sec. 3.4.1 - 3.4.2	Transformations
Thursday	April 8	Sec. 3.4.3	Effect on the unit square
Tuesday	April 13	Sec. 3.4.4 - 3.4.5	Composition and inverse
Thursday	April 15		Review

Webwork Assignments

#	Assignment Name	Open	Due
1			
2	Matrix Multiplication	Wed. Jan. 20	Sun. Jan. 31
3	Matrix Inversion	Wed. Jan. 27	Sun. Feb. 7
4	Determinants	Wed. Feb. 3	Sun. Feb. 14
5	Elementary Matrices	Wed. Feb. 10	Sun. Feb. 21
6	Eigenvalues	Mon. Feb. 21	Sun. March 14
7	Complex Numbers	Wed. March 10	Sun. March 21
8	Vectors and Lines	Wed. March 17	Sun. March 28
9	Lines and Planes	Wed. March 24	Sun. April 4
10	Transformations	Wed. April 7	Sun. April 18

Detailed Lab Schedule:

Dates	Webwork Problems	Quizzes
Jan. 18-19	Assignment 1	
Jan. 25-26	Assignment 2	
Feb. 1-2	Assignment 3	
Feb. 8-9	Assignment 4	Quiz 1: Matrices and Linear Equations
Feb. 15-16	Reading days / no classes	
Feb. 22-23	Assignment 5 / Review	
March 1-2	Assignment 6 (Eigenvalues)	
March 8-9	Assignment 6 (Diagonalization)	
March 15-16	Assignment 7	
March 22-23	Assignment 8	Quiz 2: Eigenvalues and Diagonalization
March 29-30	Assignment 9	
April 5-6		Quiz 3: Complex Numbers
April 12-13	Assignment 10	