

Suggested syllabus for Math 2J

(revised 7/7/10)

Textbooks:

(1) "Linear Algebra with Applications (8th ed.)" by S. Leon

NOTE: Students who will NOT go on to take Math 3A can use the "3rd UCI Customized Edition" version of this text, to save some money.

(2) "Multi-Variable Calculus (UC Irvine)" by James Stewart.

<i>Lecture</i>	<i>Section</i>	<i>Description</i>
	<i>From textbook #1:</i>	
1	§1.1	Systems of linear equations
2	§1.2	Row Echelon Form
3	§1.3	Matrix Arithmetic
4	§1.4	Matrix Algebra
5	§1.5	Elementary Matrices
6	§2.1	Determinant of a matrix
7	§2.2	Properties of Determinants
8	§2.3 + <i>introduction to linear independence</i>	Cramer's Rule
9	§6.1 (<i>begin</i>)	Eigenvalues and Eigenvectors
10	§6.1 (<i>conclude</i>)	Eigenvalues and Eigenvectors
11	§6.3 (<i>begin</i>)	Diagonalization
12	§6.3 (<i>conclude</i>)	Diagonalization
13	<i>Review for Midterm Exam</i>	
14	MIDTERM EXAM	

	<i>From textbook #2:</i>	
15	§12.1 (<i>begin</i>)	Sequences
16	§12.1 (<i>conclude</i>)	Sequences
17	§12.2 (<i>begin</i>)	Series
18	§12.2 (<i>conclude</i>)	Series
19	§12.3	Integral test
20	§12.4	Comparison tests
21	§12.5	Alternating series test
22	§12.6	Absolute convergence, ratio test
23	§12.7	Strategy for testing series
24	§12.8	Power series
25	§12.9	Representations of functions as power series
26	§12.10 (<i>begin</i>)	Taylor and MacLaurin series
27	§12.10 (<i>conclude</i>) §12.11 (<i>begin</i>)	Taylor and MacLaurin Series Taylor polynomials
28	§12.11 (<i>conclude</i>)	Taylor polynomials
29	<i>Review for Final Exam</i>	