Math 226: Calculus IV **Spring 1993**

Syllabus

Jan. 13	M1 Basic Matrix Operations
15	M1 Row & Column Operations
18	M2 Linear Equations *Quiz 1*
20	M2 Guassian Elimination
22	M4 Matrix Inversion
25	M5 Determinants *Quiz 2*
27	M6 Linear Dependence
29	M6 Linear Independence
Feb. 1	M11 Gram-Schmidt *Quiz 3*
3	1.1–1.2 Introduction to Differential Equations
5	2.1 Linear Equations
8	2.2 Linear Equations *Assignment 1*
10	*Review*
11	**Exam I**
12	2.3 Non-linear Equations
15	2.4 Separable Equations *Quiz 4*
17	2.5 Applications of 1st Order Equations
19	2.5 Applications of 1st Order Equations
22	2.6 Population Dynamics & Related Problems *Quiz 5*
24	2.7 Elementary Mechanics
26	2.8 Exact Equations
Mar. 1	2.9 Integrating Factors *Quiz 6 & Assignment 2*
3	2.10 Homogeneous Equations
5	3.1 2nd Order Equations
8–12	**Midsemester Break**
15	3.2 Fundamental Solutions of the Homogeneous Eqn.
17	3.3 Linear Independence (*Review*)
18	**Exam II**
19	3.4 Reduction of Order
22	3.5 Constant Coefficient Homogeneous Eqns. *Quiz 7*
24	3.5.1 Complex Numbers
26	3.6 Method of Undetermined Coefficients
29	3.6-3.6.1 Undetermined Coefficients *Quiz 8 & Assignment 3*
31	3.6.1-3.7 Variation of Parameters
Apr. 2	3.7 Free Vibrations
5	4.1 Power Series
7	4.1 Power Series
9	**Good Friday**
12	**Easter Monday**
14	4.2 Series Solns at an Ordinary Point I *Quiz 9*
16	4.2.1 Series Solns at an Ordinary Point II
19	4.3 Singular Points (*Review*) *Assignment 4*
20	**Exam III**
21	4.4 Euler Equations
23	4.5 Series Solns at Singular Point I
26	4.5.1 Series Solns at Singular Point II
28	*Review & Course Evaluation*
Apr. 30	*Study Day*
May 5	**Final Exam**