

MA255 09-02
Mathematical Modeling and Introduction to Differential Equations
Spring 2009 Schedule (as of 03JAN09)

Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
5-Jan Reorgy Week	6-Jan Reorgy Week	7-Jan Reorgy Week	8-Jan Drop	9-Jan LSN1 Course Intro; Some Basic Mathematical Models; Direction Fields (1.1)	
12-Jan LSN2 Solutions of Some Differential Equations (1.2)	13-Jan LSN3 Numerical Approximations: Euler's Method (1.3)	14-Jan LSN4 Classification of Differential Equations (1.4)	15-Jan LSN5 Tech Lab 1	16-Jan LSN6 Linear Equations; Method of Integrating Factors (2.1) HW1 Due	
19-Jan Drop (MLK Day) Tech Report 1 Due	20-Jan LSN7 Separable Equations (2.2)	21-Jan LSN8 Modeling with First Order Equations (2.3)	22-Jan LSN9 Difference Between Linear & Nonlinear Equations (2.4)	23-Jan LSN10 Autonomous Equations and Population Dynamics (2.5)	500th Night Weekend
26-Jan LSN11 Exact Equations & Integrating Factors (2.6)	27-Jan LSN12 Accuracy of Numerical Methods (2.7)	28-Jan LSN13 Improved Euler & Runge-Kutta Methods (2.8)	29-Jan LSN14 Tech Lab 2	30-Jan Drop HW2 Due	Yearling Winter Weekend
2-Feb PSL1 Review Lesson Tech Report 2 Due	3-Feb LSN15 WPR 1 (Class Hour)	4-Feb Drop	5-Feb LSN16 Review of Matrices (A.1)	6-Feb LSN17 Systems of Two Linear Algebraic Equations (3.1)	
9-Feb LSN18 Systems of Two First Order Linear Differential Equations (3.2)	10-Feb LSN19 Homog Linear Syst with Constant Coefficients (3.3)	11-Feb LSN20 Complex Eigenvalues (3.4)	12-Feb LSN21 Tech Lab 3	13-Feb LSN22 Repeated Eigenvalues (3.5)	Valentine's Day
16-Feb President's Day (No Class)	17-Feb LSN23 A Brief Introduction to Nonlinear Systems (3.6) Tech Report 3 Due	18-Feb IT105 Lab (No Class)	19-Feb IT105 Lab (No Class)	20-Feb LSN24 Numerical Methods for Systems of First Order Equations (3.7)	100th Night Weekend
23-Feb LSN25 Definitions & Examples of 2nd Order Linear Homog Eqn (4.1) HW3 Due	24-Feb LSN26 Theory of 2nd Order Linear Homogeneous Eqn (4.2)	25-Feb LSN27 Linear Homog Eqns w/ Constant Coef. (4.3) (Ash Wednesday)	26-Feb LSN28 Tech Lab 4	27-Feb LSN29 Characteristic Equations with Complex Roots (4.4)	
2-Mar LSN30 Mechanical & Electrical Vibrations (4.5) Tech Report 4 Due	3-Mar LSN31 Nonhomogeneous Equations; Method of Undetermined Coefficients (4.6)	4-Mar IT105 Lab (No Class)	5-Mar IT105 Lab (No Class)	6-Mar LSN32 Forced Vibrations, Frequency Response, & Resonance I (4.7)	
9-Mar LSN33 Forced Vibrations, Frequency Response, & Resonance II (4.7)	10-Mar PSL2 Review Lesson HW4 Due	11-Mar LSN34 WPR 2 (Dean's Hour)	12-Mar Drop	13-Mar LSN35 Guest Lecture CME Bridge Design (Class Hour)	PPW
16-Mar Spring Break (No Class)	17-Mar Spring Break (No Class)	18-Mar Spring Break (No Class)	19-Mar Spring Break (No Class)	20-Mar Spring Break (No Class)	Spring Break
23-Mar LSN36 Definition of the Laplace Transform (5.1)	24-Mar LSN37 Properties of the Laplace Transform (5.2)	25-Mar LSN38 The Inverse Laplace Transform (5.3)	26-Mar LSN39 Tech Lab 5	27-Mar Drop	
30-Mar LSN40 Solving Differential Equations with Laplace Transforms (5.4) Tech Report 5 Due	31-Mar LSN41 Discontinuous Functions & Periodic Functions (5.5)	1-Apr LSN42 Differential Equations with Discontinuous Forcing Functions (5.6)	2-Apr LSN43 Definitions & Examples (6.1)	3-Apr PSL3 Guest Lecture - TBD (Dean's Hour)	
6-Apr LSN44 Basic Theory of Systems of First Order Linear Eqns (6.2) HW5 Due	7-Apr LSN45 Homogenous Linear Systems with Constant Coefficients (6.3)	8-Apr IT105 Lab (No Class)	9-Apr IT105 Lab (No Class) (Passover)	10-Apr Drop (Good Friday)	
13-Apr Drop (Easter Monday)	14-Apr LSN46 Complex Eigenvalues (6.4)	15-Apr LSN47 Fund Matrices & the Exponential of a Matrix (6.5)	16-Apr LSN48 Tech Lab 6	17-Apr LSN49 Nonhomogeneous Linear Systems (6.6)	Sandhurst
20-Apr LSN50 Autonomous Systems & Stability (7.1) Tech Report 6 Due	21-Apr LSN51 Almost Linear Systems (7.2)	22-Apr LSN52 Competing Species (7.3)	23-Apr PSL4 Guest Lecture - TBD (Dean's Hour)	24-Apr LSN53 Project Drop	Special Olympics
27-Apr LSN54 Predator-Prey Equations (7.4)	28-Apr IT105 Lab (No Class)	29-Apr IT105 Lab (No Class)	30-Apr Project's Day/Reading Day (No Class)	1-May LSN55 Project Drop Project Due	Boy Scout Camp
4-May PSL5 Review Lesson HW6 Due	5-May LSN56 WPR 3 (Class Hour)	6-May PSL6 Guest Lecture - TBD (Dean's Hour)	7-May PSL7 Course Admin/Review	8-May PSL8 Course Admin/Review	TEE Week Begins
11-May TEE Week	12-May TEE Week	13-May TEE Week	14-May TEE Week	15-May TEE Week	TEE Week