

Date	Topic	Notes	Assignment
T: 8-28	Curves, Calculus and Vector Fields		
TH: 8-30	Characterization of Conservative Vector Fields		
T: 9-4	Differential Forms: closed and exact		
TR: 9-6	First order ODEs	15-24	
T: 9-11	First order ODEs	25-31	Quiz 1 given
TR: 9-13	Theory / Direction Fields/Applications	32-52	Quiz 1 collected
T: 9-18	Complex-Valued Functions / Smooth Operators	54-66	
TR: 9-20	Solution of the n-th order problem	67-69	
T: 9-25	Method of Annihilators & Variation of Parameters	70-84	
TR: 9-27	Applications	93-102	Quiz 2 given
T: 10-2	Applications	93-102	Quiz 2 collected
	No class, Fall Break on 10-4 and 10-5		
T: 10-9	Test 1		
TR:10-11	Series solutions/ Singular points/ Cauchy Euler	87-120	(Frobenius omitted)
T: 10-16	Systems of ODEs matrices	123-141	
TR: 10-18	e-vector technique	142-150	
T:10-23	Complex e-vectors	142-150	
TR:10-25	Matrix exp., nonhomog. Systems	151-164	Quiz 3 given
T:10-30	Energy Analysis	195-196	Quiz 3 collected
TR:11-1	Laplace Transform technique	165-180	
T:11-6	Laplace Transform technique	165-180	
TR:11-8	Discontinuity, Dirac Delta technique	181-194	Quiz 4 given
T: 11-13	Fourier Series and the solution of PDEs	201-212	Quiz 4 collected
TR: 11-15	Test 2 (does not cover the 11-13 material)		
	Thanksgiving Break: 11-20 and 11-22 no class meeting		
T: 11-27	Fourier Series and the solution of PDEs	201-212	
TR:11-29	Variational Calculus		Quiz 5 given
T:12-4	Variational Calculus		Quiz 5 collected
W:12-5	Reading Day		
	Final Exam: see university schedule		

- New to this semester, a review of topics from Math 231 which ought to bring additional insight into exact equations and the importance of systems as they relate to the geometry of vector fields. Also, I made space for a pair of lectures on variational calculus. I removed the Frobenius method to make space for this more interesting topic. My apologies to those of you who were excited about learning generalized series as a method to solve DEqns at regular singular points.
- You are allowed one page (not exceeding 8"x11") of notes (two sides fine) for Test 1, Test 2 and the Final.
- The recommended Missions are not comprehensive, you probably need to work additional examples to get up to speed. We have a text for this reason and I have many additional solutions on my website posted to help you. After each class we learn a new technique you should find problems which are representative and work them until you own the calculation. Practice is essential.
- Grades:
Test 1 = 200pts, Test 2 = 200pts, Quizzes = 250pts, Participation = 50pts, Final Exam = 300pts.