

This page shows the material expected to be covered and the corresponding *suggested* problems for each week. Prior to each class you should determine what is to be covered and read the relevant material in the book. As the material is covered in class, you should work the assigned problems (and additional ones, if needed to help you master the material!).

Bear in mind that much of what is shown on the schedule is tentative; there may be changes to the problems and/or the timeline as we go along. For exact assignment information and up-to-the-minute announcements, please go to the Math 250B link on my webpage regularly.

Important Dates:

September 7, Mon: No classes (Labor Day)

September 9, Wed: No classes (Furlough Day)

September 8, Tues: Last day to DROP without a grade of "W".

October 2, Fri: Last day the Math Department will be flexible on the approval of late withdrawal requests. After this date, students must have a serious and compelling reason for withdrawing and must provide documentation supporting their reason.

October 7, Wed: Midterm I

October 21, Wed: No classes (Furlough Day)

November 13, Fri: Last day for serious and compelling withdrawals to be approved.

November 18, Wed: Midterm II

November 23-27: No classes (Thanksgiving Break Week)

November 30, Mon: No classes (Furlough Day)

December 14, Mon: Final Exam (5:00-6:50 p.m.)

Week	Sec. #	Topics	Recommended Problems	Approx. date
1	1.1	How DE Arise	1-3,5,9,13-16	Mon, Aug 24
	1.2	Basic Ideas and Terminology	1,2,4,11,14,19,22,25,28,30,32,34,35	
	1.3	Geometry of First-Order DE	1,4,9,10,16,18-20	Wed, Aug 26
	1.4	Separable DE	1,3,4,6,7,12,17,26,27	
2	1.6	First-Order Linear DE	1,2,6,9,12,15,17,18,26	Mon, Aug 31
	1.7	Modelling Problems	1,5,6	Wed, Sept 2
	1.8	Change of Variables & Bernoulli's Equation	1-3,6,8-10,13,16,29,37,40	
3	No Class: Labor Day			Mon, Sep 7
	2.1	Matrices: Definitions and Notation	3,5,6,9,12,15-17,26,27	Wed, Sep 9
	2.2	Matrix Algebra	1-3,8,9,15,16,22,29,36-38,42,43	
	2.3	Terminology for Systems of Equations	4,6,7,11-13	
2.4	ERO and Row-Echelon Matrices	9,10,14,17		
4	2.5	Gaussian Elimination	1,2,5,8,17-19,23,24	Mon, Sep 14
	2.6	The Inverse of a Square Matrix	4,9,10,12,18,19,29-31,33	Wed, Sep 16
	2.7	Elementary Matrices		
	2.8	Invertible Matrix Theorem I	1,4	
	3.1	Definition of a Determinant Review and/or Catch-Up	9,11,12,19,21,24,25	
5	3.2	Properties of Determinants	1,4,9,14-16,18,20,21,25,27,29,36-38	Mon, Sep 21
	3.3	Cofactor Expansions	11,12,14,15,20,23,26,29	Wed, Sep 23
	4.1	Vectors in R^n	1,4,6	
	4.2	Definition of a Vector Space	1-3,5,6,9,13,14	
6	4.3	Subspaces	2-4,7,8,10,11,13,16,20,21	Mon, Sep 28
	4.4	Spanning Sets	1,2,4,7,9,10,12,15,16,18,23	Wed, Sep 30
	4.5	Linear Dependence/Independence	1,2,5,7,10,15,18,19,24,28,30,39,45,46	
7	4.6	Bases and Dimension	3,4,11,14,16,21,22,27,32-34	Mon, Oct 5
		MIDTERM I		Wed, Oct 7

Week	Sec. #	Topics	Recommended Exercises	Approx. date
8	4.8	Row Space and Column Space	2-4,8,9	Mon, Oct 12
	4.9	The Rank-Nullity Theorem	1,4,6,8-10,13	Wed, Oct 14
	4.10	Invertible Matrix Theorem II		
	4.11	Inner Product Spaces	1,4-6,11,12,19,21	
9	4.12	Orthogonal Sets and Gram-Schmidt Procedure Review of Chapter 4	3,5,10,13,15,16,23,26,28	Mon, Oct 19
	5.1	Definition of a Linear Transformation	1,4-6,13,14,17,18,23(b),28	Wed, Oct 21
10	5.3	Kernel and Range of a Linear Transformation	1,2,5,12,15-17	Mon, Oct 26
	5.4	Further Properties of Linear Transformations Review and/or Catch-Up	3,4,6,9,10,15,16,19-21	Wed, Oct 28
11	5.6	Eigenvalue-Eigenvector Problem	1,3,6,7,9,10,15,20,29,32,36-38	Mon, Nov 2
	5.7	General Results for Eigenvalues-Eigenvectors	1,4,6,7,12,16,19,20,26	Wed, Nov 4
	5.8	Diagonalization	1,2,4,5,8,17,20,24,25	
12	6.1	General Theory for Linear DE	2,3,5,6,9,10,13,16,21,22,24,27,30	Mon, Nov 9
	6.2	Constant Coefficient Homogeneous Linear DE	6,7,10-12,17,19,20,28-30,32,33,40	Wed, Nov 11
	6.3	Annihilators	1-4,17,20-22,24,25	
	6.4	Complex-Valued Trial Solutions	1,2,5,6	
13	6.7	Variation Of Parameters Review and/or Catch-Up	1,3-6	Mon, Nov 16
	7.1	First-Order Linear Systems	1,2,4,5,8,10	Wed, Nov 18
	MIDTERM II			
Thanksgiving Break: No Class— Nov 23-27				
14	7.2	Vector Formulation	1,2,4,8,9,13	Mon, Nov 30
	7.3	General Results for First-Order Linear Systems	1,2,4	Wed, Dec 2
	7.4	Non-defective Coefficient Matrix	1,2,5,6,8,16,19,20,22,24	
	7.5	Defective Coefficient Matrix	1,3,5,8,14	
15		Review and/or Catch-Up		Mon, Dec 7
	7.6	Variation of Parameters for Linear Systems Review for the Final	1,3,6,10	Wed, Dec 9