

1.1 Linear Equations (1st half) - 1, 3, 4, 5, 11, 16

1.2 Matrices (intro) - 20, 22

Hw1, Thursday, August 27: 1.1 - 3, 4, 11, 16; 1.2 - 20.

1.1 (2nd half) - 20, 22, 23, 30, 31

1.2 (main) - 2, 5, 7, 11, 17

1.3 Inverses - 1, 2, 3, 4, 5, 9, 23

1.4 Matrix Properties - 2, 3, 4

Hw2, Thursday, September 3: 1.1 - 20, 23, 30; 1.2 - 11, 17; 1.3 - 2, 4, 9; 1.4 - 3.

1.5 Determinants - 1, 4, 5, 8, 11, 12

1.6 Properties of Determinants - 2, 3, 5, 7, 9

2.1 Vector Spaces - 1, 2, 10

Hw3, Thursday, September 10: 1.5 - 4, 8, 12; 1.6 - 3, 5, 9; 2.1 - 2.

2.2 Subspaces/Spanning - 1, 2, 3ab, 4abd, 5, 9, 10, 11, 15, 16

2.3 Independence/Bases - 1, 2, 3, 4, 6, 11, 13, 14, 19, 23, 24

2.4 Nullspaces - 1bc, 2ab, parts abd of 6, 7, 9, 10 and 12

Hw4, Thursday, September 17: 2.2 - 2ab, 4abd, 10, 11, 16; 2.3 - 6, 11, 14, 23;

2.4 - 2ab, parts abd of 6, 10, 12.

Hour Exam 1, Thursday, September 24, 4pm. Covers Ch. 1 and Ch. 2

2.5 Wronskians - 1, 4, 5, 7

3.1 Intro DE - 5, , 8, 9, 12, 22, 25

3.2 Separable Equations - 2, 3, 5, 6, 7, 13, 14

3.4 Linear Equations - 1, 2, 5, 6, 13, 14, 16, 17

Hw5, Thursday, October 1: 2.5 - 4, 3.1- 9, 25; 3.2 - 6, 14
and 3.4 - 2, 6, 14.

October 5-6 (Monday-Tuesday) - **Pacing Break**

3.6 Cooling/Mixing - 7, 8, 13, 21, 22

4.1 Higher Order DE - 1, 2, 9, 10, 13, 14

4.2 Linear/Homogeneous - 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 15, 18, 27, 28

Hw6, Thursday, October 15: 3.6 - 8, 13, 22; 4.1 - 2, 10, 14 and 4.2 - 2, 5, 7, 12, 18, 27.

4.3 Non-Homogeneous/Const. Coef. - 1, 4, 6, 8, 9, 11, 12, 19

4.5 Springs/Homog - 1, 2, 4, 5, 7, 15 (without graphing in part c). (Note values given to use as g , and formula for k .)

4.5 (continued) Springs/Circuits - 9, 11, 13, 17. (Note typo in problem 17: the problem should read $R = 0.2$.)

Hw7, Thursday, October 22: 4.3 - 4, 8, 9, 11, 19
and 4.5 - 2, 5, 15, 17.

Hour Exam 2, Thursday, October 29, 4pm. Covers Ch. 3 and Ch. 4

5.1 Linear Transformations - 15, 16, 17, 19, 20

5.2 Algebra of Linear Transformations - 5, 6, 11, 12, 13, 14

6.1 1st order systems (intro) - 1, 5, 7 (briefly!)

5.4 Eigenvectors - 1, 2, 3, 4, 8

Hw8, Thursday, November 5: 5.1 - 16, 20a; 5.2 - 6, 12, 14; 6.1 - 5; 5.4 - 1, 2, 4, 8

Note: 5.5 (and 6.2 as well) use the same matrices as in 5.4; you don't need to re-do the calculations. Save a copy of your work

November 10 (Tuesday) - Last day to withdraw with a "W"

5.4 Eigenvectors (continued) - 9, 10, 15, 16, 17

5.5 Diagonalization - 1, 2, 3, 4, 8, 9, 10

Hw9, Thursday, November 12: 5.4 - 10, 16; 5.5 - 1, 4, 8, 10.

6.1 (main) - 3, 13, 14, 15

6.2 Diagonalizable Homogeneous Systems - 1, 2, 5, 6

6.4 Non-Homogeneous Systems - 1, 5. Also apply the instructions for Problems

1-10 for Exercise 2 of Section 6.2, with $G(x) = \begin{pmatrix} e^x \\ 0 \end{pmatrix}$.

Hw10, Thursday, November 19: 6.1 - 14, 6.2 - 2, 6; 6.4 - 1, 5 and Exercise 2 of Section 6.2, with $G(x) = \begin{pmatrix} e^x \\ 0 \end{pmatrix}$.

6.6 Applications of systems (two tank mixing) - 1, 2

Hw11, Tuesday, December 1: 6.6 - 1, 2.

Final Exam, TBA