

**ORDINARY DIFFERENTIAL EQUATIONS
SPRING 2010
ASSIGNMENTS
SHEPHERD UNIVERSITY**

The key to success is practice, practice often. This is a 4 credit hour course. Thus you should expect to spend at least 12 hours outside of class studying for this course if you expect to earn a passing grade. The following list is a minimum set of problems that you should thoroughly understand.

Chapter 1 Read and study all of Chapter 1.

- 1.1: 1 - 20.
- 1.2: All.
- 1.3: 1- 6 all, 7-14 even, 15-20 all.

Chapter 2

- 2.1: Read and do 2-12 even (part (c)), 13-33 odd.
- 2.2: Read and do 1-17 odd.
- 2.3: All problems are appropriate, you are responsible for the set.
- 2.4: 1-12,14,16,21,23-25
- 2.5: 1-15

Chapter 3

- 3.1: Pre: 1,7,15,17; Post: All are appropriate.
- 3.2: Pre: 1,9,13; Post: 2-6,7-12,14,17,18,22-27.
- 7.2: Post: 10,11.
 - Exam
- 3.3: Pre: Recall how to calculate the Taylor's series for e^θ , $\sin \theta$, and $\cos \theta$.
- 3.3: Post: 15,16.
- 3.4: Pre: 27,29.
- 3.4: Post: 1-6, 7-15 odd, 17-22, 30, 31.
- 3.5: Pre: 20, 21, 22.
- 3.5: Post: 1-16, 18, 23-30.
- 3.6: Pre: 27.
- 3.6: Post: 1-18 odd, 19-26 part a) only, 28, 29, 30, 33-37.
- 3.7: Pre: 21.
- 3.7: Post: 1-20 odd, 28-32 even.
 - Exam
- 3.8: Pre: 1-4.
- 3.8: Post: 5-20, 26, 28, 29.
- 3.9: Pre: 1-4.
- 3.9: Post: 5-25 (do computer parts by hand or computer).

Chapter 6

- 6.1: Pre: 1-4.
- 6.1: Post: 5-25.

- 6.2: Pre: 28.
- 6.2: Post: 1 - 26, 29 - 34.
- 6.3: Pre: 1 and 3.
- 6.3: Post: 4-18, 20-34.
- 6.4: Post: 1-16.
- 6.5: Post: 1-12, 17.
- 6.6: Post: 1, 4 - 11, 13 - 20.

Chapter 7

- 7.1: 1-12, 14.
- 7.2: 1-6, 10, 11.
- 7.3: 7, 8, 13, 14, 16-21.
- 7.4: 3, 4, 6, 7
- 7.5: 1 - 10, 20 - 23, 24 - 27.
- 7.6: 1 - 6, 9 - 12, 13 - 22.
- 7.7: 1- 8, 11 - 13.
- 7.8: 1- 4, 7 - 10, 13 - 15.
- 7.9: Solve using all four methods: 1 - 4, 10 - 11.

Chapter 5

- 5.1: 1 - 16 even, 17, 18.
- 5.2: 2, 6, 7, 12, 15 - 18.
- 5.3: 1 - 8 even.
- 5.6: 1- 10 even.
- 5.7: 1- 12 even.