



Birzeit University-Mathematics Department
Math331-Ordinary Differential Equations

Course Outline

Second Semester 2017-2018

Textbook: Boyce , W.E. and R.C. Diprima , *Elementary Differential Equations & Boundary Value Problems*. 9th edition, John Wiley & Sons, Inc. 1997.

Course Material:

- Chapter 1: Introduction
- Chapter 2: First Order Differential Equations
- Chapter 3: Second Order Linear Differential Equations.
- Chapter 4: Higher Order Linear Differential Equations.
- Chapter 5: Series Solution of 2nd Order Linear Differ. Equations.
- Chapter 6: The Laplace Transform.
- Chapter 7: Systems of First Order Linear Differential Equations.

Grading Policy:

Quizzes	10%
Two Hour Exams	50%
Final Exam	40%

No Make-Up Exams

Homework Problems

Section	Problem Number
Chapter One	
1.1	1,7,9,11,22,23,24,25
1.2	1(b),4,7,9,11,12,15,16
1.3	1,3,5,9,21,25
Chapter Two	
2.1	6,8,18,20,27,28, 31,33
2.2	6,11,13,20,21,23,30,32
2.3	1,3,4,16,18,20
2.4	1,3,5,6, 13,17, 25,26,27,28,32
2.6	4,7,10,13, 18,23,24,31
2.8	1,3,4
Misc.	36,40,42,44
Chapter Three	
3.1	4,8,12, 15,17,20,21
3.2	1,6,8,11,15,16,21,24,29,33,35,38,39,40
3.3	7, 11,14,17,19,22,34,35,38
3.4	4,6, 14,19,20,24,26,33,34
3.5	4,6,8,14,17,19,23,25,29
3.6	4,5,13,16,17,22,23
Chapter Four	
4.1	5,7,11
4.2	11,17,21,23,25,33
4.3	3,6,9,17,18,
Chapter Five	
5.1	3,4,9,15,22,26
5.2	2,3,7,9,11,19
5.3	1,4,6,7,12
5.4	1,3,7,13,20,24,36,37
5.5	1,3,5
Chapter Six	
6.1	12,15,26,27
6.2	2,4,7,11,14,23,27(a,b),28,32,37
6.3	2,3,7,16,22,25,34,35
6.4	1,3,5,9,10,11
6.5	1,3,7,12,25
6.6	4,6,9,10,12,15,16, 22
Chapter Seven	
7.5	1,4,12
7.6	1,2,6
7.8	1,4,8,11