
Differential Equations

Math 341 Fall 2010
©2010 Ron Buckmire

Fowler 307 MWF 2:30pm - 3:25pm
<http://faculty.oxy.edu/ron/math/341/10/>

Week 11

Monday November 8 : *Worksheet 23*

Hamiltonian Systems. We shall continue our analysis of non-linear systems by introducing the concept of a Hamiltonian.

Reading:

Blanchard, Section 5.3

Homework #24:

Blanchard, Section 5.3: 2, 12, 13, 14, 17, 18.

Wednesday November 10 : *Worksheet 24*

Dissipative Systems. We shall continue our analysis of non-linear systems by introducing the concept of a Lyapunov function and begin examining gradient systems.

Reading:

Blanchard, Section 5.4

Homework #25:

Blanchard, Chapter 5 Review: 3, 4, 5, 6, 7, 8, 11, 12, 25, 27, 28.

Friday November 12 : *Worksheet 25*

Laplace Transforms. We shall be introduced to a new method for solving differential equations that involves an integral transform.

Reading:

Blanchard, Section 6.1

Homework #26:

Blanchard, Section 6.1: 2, 3, 4, 6, 7, 8, 12, 13, 16, 17.