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# Differential Equations

Math 341 Spring 2005  
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MWF 8:30 - 9:25am Fowler North 2  
<http://faculty.oxy.edu/ron/math/341>

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## Week 11

**Monday April 4:** *Class 26:*

**Translations and Laplace Transform.** We will examine some interesting results when the independent variables and dependent variables are shifted/translated.

Reading:

Zill, (Section 7.3)

Homework Set # 11: (*due Friday April 15*)

Zill, Section 7.3: 3\*, 7\*, 15\*, 22\*, 39\*, 43\* *EXTRA CREDIT 49-54*

**Quiz #9 DUE**

**Wednesday April 6** *Class 27:*

**Derivatives of Laplace Transforms/Laplace Transforms of Integrals.** We will look at the interaction of Calculus operations and Laplace Transforms and introduce the concept of “convolution.”

Reading:

Zill, (Section 7.4)

Homework Set # 11: (*due Friday April 15*)

Zill, Section 7.4: 1\*, 2\*, 19\*, 27\*,33\*, 41\* *EXTRA CREDIT 45, 49*

**Friday April 8** *Class 28:*

**Dirac Delta Function.** Introducing you to the weirdest, most wonderful and most useful “function” in applied mathematics and engineering.

Reading:

Zill, (Section 7.5)

Homework Set # 11: (*due Friday April 15*)

Zill, Section 7.5: 3\*, 9\*

Zill, Chapter 7 Review: 25\*,26\*,27\*,28\*,29\* *EXTRA CREDIT 37*

**Quiz #10**