

**Syllabus for Math 306: Honors Differential Equations
Fall 2014**

Course:

<i>Lecture:</i>	MW 12:00-1:15 pm	Rm. Kreiger 308
<i>Section:</i>	F 12:00-12:50 pm	Rm. Kreiger 308

Lecturer: Jacob Bernstein

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Teaching Assistant: Alexander Grounds

<i>Office:</i>	Kreiger 211	<i>Phone:</i>	
<i>Email:</i>	aground1@math.jhu.edu	<i>Office Hours:</i>	M 3-4pm

Course Website: The course website is <http://math.jhu.edu/~bernstein/math306>

Prerequisites: Single-variable calculus. Some familiarity with complex numbers, multi-variable calculus and linear algebra will be helpful.

Text: The course texts (on reserve in the library) are:

Differential Equations, Dynamical Systems and an Introduction to Chaos, 3rd Ed. by M.W. Hirsch, S. Smale & R. L. Devaney, Academic Press, 2013 (required)
Elementary Differential Equations and Boundary Value Problems, 10th Ed. by Boyce & DiPrima, Wiley, 2012 (optional reference)

Material to be Covered:

First Order Differential Equations, Systems of Linear ODEs, Second Order ODEs, Laplace Transform, Non-linear ODEs.

Course Schedule: A (tentative) schedule may be found on the course website.

Homework: Weekly homework will be due during lecture on Wednesday. The homework will be posted to the course website the previous week. Late work will not be accepted. There will be 10 sets assigned in total. Homework counts for **20%** of the final grade with the lowest grade dropped.

Exams: There will be **two** in class midterm exams. The midterms count for **20%** of the final grade. Date of the midterms: **Wednesday, October 8** and **Wednesday, November 5**. The final counts for **40%** of the final grade. Date of the final exam: **Wednesday, December 17, 9am-12pm**.

Working Together: Working together is allowed and encouraged, however it is essential that each student write up his or her own solutions. Use of sources (i.e. other people, books, the internet) without proper attribution will be considered plagiarism.

Math Help Room: You may obtain additional assistance from The Math Help Room in Krieger 213 which is open Monday - Thursday 9am-9pm and Fridays 9am-5pm.