MA 30300 (Fall 2015)
Differential Equations and Partial Differential Equations for Engineering and the Sciences

Section 074 MWF 1:30pm-2:20pm UNIV 219
Section 079 MWF 2:30pm-3:20pm UNIV 219
Instructor: Jingwei Hu
Email: hu342@purdue.edu **Office:** MATH 416
Office Hours: W 3:30pm-5:00pm, Th 1:30pm-3:00pm or by appointment

Course Webpage (maintained by Math Department):
https://www.math.purdue.edu/academic/courses/coursepage?subject=MA&course=30300
Section Webpage (maintained by myself):
http://www.math.purdue.edu/~hu342/MA303_fall15

Topics: This is a second-semester course in differential equations. The main topics covered are series solutions of differential equations, the Laplace transform, linear systems of differential equations, an introduction to numerical methods, and an introduction to Fourier series and partial differential equations.

Textbook: Elementary Differential Equations and Boundary Value Problems, Wiley, 10th Edition, by Boyce and DiPrima. We will cover most of chapters 5, 6, 7, and 10, and part of chapter 8.

WebAssign Homework: The primary way to submit homework will be through WebAssign (you have to purchase the online access to WebAssign in order to do the homework). WebAssign homework is due every Sunday 11:00pm.

Hand-graded Homework: There will also be hand-graded homework submitted on paper. Hand-graded homework is due every Monday at the beginning of the lecture (problems will be posted on the Section Webpage). Note that the answers to all problems are at the end of the book, thus you should **always show your work** to receive credits. No points will be given if you only write the final answer without showing how you get it.

Midterms and Final: There will be two **in-class** midterms given during the semester. Tentative dates: midterm 1 (Fri, Oct 9); midterm 2 (Fri, Nov 20). There will be a comprehensive final given during the exam week (time and location will be announced later). Books, notes, and calculators are not allowed in exams.

Grading: Your grade will be determined from the total scores, whose components have the following maximum values:

WebAssign Homework	Hand-graded Homework	Midterm 1	Midterm 2	Final	Total Points
150	50	100	100	200	600

Course Policies:

1 Late homework: The lowest **three** WebAssign homework scores and the lowest **two** hand-graded homework scores will be dropped, **but in return, late homework will not be accepted**. In the event that an assignment is missed for reasons that are serious, unavoidable, and beyond the student's control, the situation will be handled on an individual basis. Exceptions will be considered only if I am notified *prior* to the due date and proper documentation is provided.

2 Re-grade: If you disagree with the grading on an exam or hand-graded homework, you must provide a written explanation, including your reasons for disagreeing, and resubmit the work for regrading within one week after the work is first returned to the class.

3 Make-up policy: Except in unusual circumstances (illness, family emergency, etc. documented), no make-ups will be given on midterms or the final. If you need a make-up exam, you have to talk to me **in advance** (at least 5 days before the test date).

4 Attendance: Class attendance is expected. Reading the sections in the textbook ahead of time is recommended. If you miss a lecture, you are responsible for everything that is covered including in-class announcements.

5 Integrity: Academic integrity is expected for all students at all times in this course. You are free (even encouraged) to work with other students to solve the homework problems (talking about math may seem really geeky, but it can make learning the subject much easier and more fun). However, you are required to write up solutions for each assignment using your own words and explanations. Of course, you are required to do your own work on each exam (although you can prepare with others).