

Math 217: Differential Equations Syllabus

Mark Pedigo

2012 - Fall

Instructor Info

Mark Pedigo

Office: Cupples I Room 9

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Office Hours: 12:30-1:30 p.m. MTR or by appointment. Feel free to stop by other times.

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TA Information

Matt Wallace

DE Help Sessions: TBA

Calculus room: Lopata Hall 323 Tuesday & Thursday, 12-2 ([Calc Help Room Schedule](#))

Email: matt@math.wustl.edu

Catalog Description

Introduction to ordinary differential equations: first-order equations, linear equations, systems of equations, series solutions, Fourier series methods, Laplace transform methods, numerical solutions, computer-aided study of differential equations, graphics phase planes. Prerequisite: Math 233 (or Math 233 concurrently).

Corequisite

Math 233: Calculus III is a corequisite.

Text

William E. Boyce & Richard C. DiPrima. *Elementary Differential Equations, 9th Edition* John Wiley and Sons, Inc., 2009. (ISBN 978-0-470-03940-3)

- This is not the same textbook that was used last semester.
- You do not need the web access card. Therefore, a used copy of the book will suffice.

Technology

Non-graphing calculators (e.g., [TI-36](#)) are allowed for exams. Your calculator should be able to compute logarithmic, exponential, and trigonometric functions. You can, of course, use any calculator you wish for homework assignments.

We will use WebWork for this course. Thus, you'll need access to an internet connection. Software demos (in e.g., Maple, Mathematica or a Java app) may be used in lectures to demonstrate various points. Students are not required to use any software other than WebWork for the course.

Exams

- Exams will be a mix of multiple choice questions (10-15 of these) and hand graded questions (typically 2 of these). The final exam will be entirely multiple choice.
- Exam materials
 - Bring your student ID.
 - You will be allowed a 3 by 5 “cheat card” for the exam (both sides).
 - You may use a scientific *non-graphing* calculator on exams.
 - Please do not bring scratch paper with you to the exam. Paper will be provided.
- Find your room and seat before the exam: [Exam Seating](#)
- Find your multiple choice score (typically the day after the exam): [Multiple Choice Exam Scores](#)
- [Old Exams](#)

Exam Schedule

Tests, at which attendance is required, will be given from 7:00-9:00 p.m. on the following dates: 7:00 to 9:00 p.m. on September 20, October 16, and November 13.

No tests may be made up after the fact! To compensate for this, the lowest exam percentage may be replaced by the final exam percentage (if it's to your benefit). If you must miss a test date, please see me or Dr. Blake Thornton as early as possible for arrangements.

Grades

Homework (WebWork)	7%
Homework (Written)	7%
Homework (In-class)	6%
Test #1	20%
Test #2	20%
Test #3	20%
Final	20%

The lowest test score will be replaced by the score of the final (if it's to your benefit). The final is comprehensive.

Letter grade cutoffs are as follows.

A	93%	C+	77%
A-	90%	C	73%
B+	87%	C-	70%
B	83%	D	60%
B-	80%	F	below 60%

The scale may (or may not) be adjusted slightly, in your favor, at the end of the semester.

Homework

The homework is split into three parts: WebWork (computerized), Written and In-Class. WebWork is a wonderful system for homework, but it does have a major drawback: the problems do not need to be systematically written out for credit. In mathematics, notation (the way problems are written out into symbols) is crucial. Solving a problem is fine, but what if you want to show the solution to someone else? What if you find an interesting result and want to publish it? You'll need proper notation. To this end, written homework will be required. The in-class homework consists of assignments given during class time. These must be completed during the class; there are no makeup in-class assignments.

The lowest written homework grade will be dropped. Two in-class assignments will be dropped (if it's to your benefit). No WebWork scores will be dropped.

Homework is due in class every Thursday. WebWork assignments will typically be due midnight on Thursday; however, check the due dates of each individual assignment for variations.

Mentoring/Resources

Everyone in the class could benefit from mentoring. Since nothing can take the place of one-on-one coaching, please take advantage of the mentoring resources available. No, really, take advantage of the mentoring resources available.

- Please come see me in my office if you need help, or have concerns, or just want to chat.
- [Calculus Resources](#)
- [Math Resources](#)
- [Engineering Tutoring Services](#) (only available to EN students)

Cell Phones

Please turn off your cell phones before class begins. Cell phones (ringing or texting) are extremely disruptive to other students. If you are expecting a call you absolutely cannot miss, please let me know before class begins.