MATH 319 - TECHNIQUES IN ORDINARY DIFFERENTIAL EQUATIONS

Section 001  Spring 2015

Instructor: Jessica Lin  Email: jessica@math.wisc.edu
Office: Van Vleck 315  Course website: http://math.wisc.edu/~jessica/math319

Schedule: This class meets MWF 11-11:50AM in B130 Van Vleck Hall.

Textbook: Elementary Differential Equations and Boundary Value Problems, Boyce and DiPrima, 10th Ed.

Office Hours: Wednesdays 11:50AM-12:50PM, Thursdays 3:30-4:30PM

Syllabus: We will cover the following material from the book:
Chapter 1. Introduction
Chapter 2. First Order Differential Equations
Chapter 3. Second Order Differential Equations
Chapter 5. Series Solutions of Second Order Linear Equations
Chapter 6. The Laplace Transform
Chapter 7. Systems of First Order Linear Equations
Chapter 9. Nonlinear Differential Equations and Stability (if time permits)

*A more detailed syllabus will be created during the semester. Check the class website regularly to access this. This serves as an excellent reference for the "main topics" of this class.

Exams: There will be two in-class midterm exams and one in-class final exam. Please bring a photo ID to the exams. There will be no calculators or cheat sheets allowed. No make-up exams will be given. The only excused absences from exams are in cases of official university business, with an appropriate a note from a university official. If you miss an exam due to a legitimately documented excused absence, your grade will be re-weighted appropriately. Otherwise, you will receive a 0 for that exam. If you need to miss an exam due to university business, please inform me and provide the appropriate documentation ASAP, and absolutely no later than 3 weeks in advance of exam date.

Homework: Homework will be assigned on Fridays, due the following Friday. Homework should be handed in at the beginning of class by placing it in a pile at the front of the stage. Please staple a completed homework cover sheet as the top page of your homework. Have your homework stapled nicely, with all of the completed problems in order as assigned.

You are allowed and encouraged to work on your homework together. However, you must write up your solutions independently. Cheating and/or copying without understanding is academic fraud.

A subset of homework problems will be graded, and homework will also be checked for overall completeness. Graded homeworks will be returned to you in your discussion section. Late assignments will NOT be accepted. Your lowest homework grade will be dropped. Also, there will be at least one question on each midterm exam which comes verbatim from the homework.

Important Dates and Course Components  Grade Breakdown
**First Midterm**: *Friday, February 27th*, during class 25% of your grade.

**Second Midterm**: *Friday, April 17th*, during class 25% of your grade.

**Final Exam**: *Monday, May 11th* (Finals Week), 7:45-9:45AM 35% of your grade.

**Weekly Homework**: The mean after the lowest homeworks dropped. 10% of your grade.

**Weekly Discussion Section**: Attendance and participation. 5% of your grade.

Grading Policy: A curve will be applied to the final grade if necessary.

* I reserve the right to change any of the above if I find it necessary, in which case I will inform you well in advance. Exam dates and times are fixed.

**Discussion Section**: Discussion section is an important component of this course.

**TA**: Tamvana Makuluni

**Email**: makuluni@math.wisc.edu

**Office**: Van Vleck 516

**Office Hours**: TBA

Discussions will take place in B317 Van Vleck Hall.

- Tuesday 7:45-8:35AM
- Thursday 7:45-8:35AM
- Tuesday 8:50-9:40AM
- Thursday 8:50-9:40AM