Instructor: Slobodan Simić
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Course web page: http://www.math.sjsu.edu/~simic/Fall14/Math133A/133A.html
Prerequisite: Math 32 (with a grade of ”C–” or better in each) or instructor consent.
Office hours: In person: MW 10:30-12:00, and by appointment. Online: most days and times on Piazza (see below).
Homework: There will be weekly homework assignments. You are welcome to work on the homework collaboratively with other students. Homework will not be collected.
Quizzes: Every week there will be a short in-class quiz. The quiz will be given on the day that week’s homework assignment is due and will consist of one (more or less) randomly selected problem taken straight from that assignment. One purpose of the quizzes is to help make sure that you keep up with the material and that you are doing the homework. There will be no makeup quizzes, but the lowest two (or three, TBD) quiz scores will be dropped.
Exams: There will be two in-class midterms and a final exam. *Due to scheduling constraints it is not possible to give makeup exams.* Please mark your calendars:
    - Midterm 1: Monday, September 29, 2014
    - Midterm 2: Monday, November 3, 2014
    - Final exam: Tuesday, December 16, 2014, 12:15–2:30 PM
Grading policy: Quizzes 10%, Midterm 1 25%, Midterm 2 25%, Final 40%. See the class web page for a detailed grading policy.
Course outline: Please see the course web page for a detailed class schedule.
Course objectives: The student should be able to:

- Solve first-order separable and linear differential equations.
- Find the equilibrium points and sketch the phase line of a linear first-order autonomous differential equation.
- Solve planar linear first-order systems of equations with constant coefficients, sketch and classify the phase portrait.
• Find the general solution to linear second-order homogeneous equations with constant coefficients.
• Solve initial-value problems involving linear second-order homogeneous differential equations with constant coefficients.
• Use the method of undetermined coefficients to solve non-homogeneous linear second-order differential equations with constant coefficients.
• Solve problems involving forced mechanical vibrations modeled by linear second-order differential equations with constant coefficients.
• Compute the Laplace transform of various basic elementary functions.
• Use the Laplace transform to solve first-order initial value problems involving a linear differential equation.
• Compute the Laplace transform of various basic discontinuous functions as well as the Dirac delta-type functions and use this to solve first- and second-order differential equations with discontinuous forcing.
• Use Taylor series to solve certain second-order linear differential equations with variable coefficients.

Participation: During class please feel free to stop me at any time and ask questions. I encourage and greatly appreciate students’ participation. I will add up to five extra points for participation to your final grade.

Feedback: I appreciate constructive feedback which you can give me via anonymous posting on Piazza, by email, or in person.

Academic integrity: From the Office of Student Conduct and Ethical Development: Your own commitment to learning, as evidenced by your enrollment at San José State University, and the University’s Academic Integrity Policy, require you to be honest in all your academic course work. Faculty are required to report all infractions to the Office of Student Conduct and Ethical Development. The policy on academic integrity can be found at http://www.sjsu.edu/studentconduct/.

Campus policy in compliance with the Americans with Disabilities Act: If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with your instructors as soon as possible, or see them during office hours. Presidential Directive 97-03 requires that students with disabilities register with DRC to establish a record of their disability.

Class attendance: According to University policy F69-24, Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.

Piazza: For most out-of-class Q&A we will be using Piazza (https://piazza.com). Piazza is a free online gathering place where students can ask, answer, and explore 24/7, under the guidance of their instructors. On the class dashboard, students can post questions and collaborate Wikipedia-style to edit responses to these questions. I as an instructor can also answer questions, endorse student answers, and edit or delete any posted content. Each student will be invited to join Piazza by email. Please join it as soon as you can, as I plan to use Piazza extensively.

For more details, see the course web page.