

California State University, San Bernardino
Department of Mathematics
Math 270, Section 1, Winter 2012
Elementary Differential Equations

Course and Instructor Information

Instructor: Charles Stanton
Office location: JB 368B
Telephone: (909) 537-5376
Email: cstanton@csusb.edu
Office hours: Monday, and Wednesday 12-1 p.m.
Tuesday, 3:15-4:15 p.m.
Wednesday 3-3:50 p.m.
And by appointment.
Class Days/Time: Monday and Wednesday 4-5:50 p.m.
Classroom: JB 138
Web page: <http://www.math.csusb.edu/faculty/stanton/>

Blackboard

Copies of the course syllabus and major assignment sheets may be found on the campus Blackboard site after the first week of classes.

Course Description

First order equations, second order linear equations, linear equations with constant coefficients, variation of parameters, applications. Prerequisite: MATH 252. (4 units)

Course Goals/Objectives and Student Learning Objectives/Outcomes

Upon successful completion of this course, students will be able to:

1. Solve first order differential equations.
2. Apply the theory of first order differential equations to problems in physics, population growth, and economics.
3. Solve elementary second order differential equations.
4. Apply the theory of second order differential equations to problems in harmonic motion.

5. Use techniques such as undetermined coefficients and variation of parameters to solve second order differential equations.
6. Understand the geometric significance of systems of differential equations.

Required Text

Textbook

Differential Equations with Boundary Value Problems, Polking, Bogess and Arnold, 2nd Edition, 2006

Course Content

The course will cover chapters 1,2,3,4,7,8

Assignments

Homework will be assigned and collected weekly. Homework should be done neatly and turned in with problems in the proper order.

Project

A project where the theory of differential equations is used to solve a problem will be due on Monday, March 12. Details will be given on blackboard.

Grading Policy

Your grade will be based on homework, two midterms, and a final exam. The first Midterm will be on Monday, February 6, and the second will be on Monday, March 5. The final exam is Wednesday, March 21, 4-6 pm.

Points (450 total)

Homework 125 points total (Homework will be scaled to 125 points)

2 Midterms: 100 points each, 200 points total

Project 25 points.

Final: 150 points

Grades:

- A 460-500 points
- A- 445-459 points
- B+ 430-444 points
- B 405-434 points
- B- 370-404 points
- C+ 355-369 points
- C 310-354 points
- C- 300-309 points
- D 250-299 points
- F below 250 points

University Policies

Students should be familiar with the "General Regulations and Procedures" in the CSUSB Bulletin of Courses for the university's policies on course withdrawal, cheating, and plagiarism.

Classroom Protocol

1. You are responsible for all material covered and announcements given in the class and/or posted on the Blackboard.
2. Cell phones, laptops, iPods/mp3 players, and other devices capable of electronic communication must be **turned off and not visible** during lectures and exams (no texting please). iPods and such may **not** be used as calculators on exams.

Important Dates

Summer 2012 Grad check deadline: Jan. 3

Last day to add open classes without permission: Jan. 13 [MyCoyote](#)

Martin Luther King Holiday observed (campus closed): Jan. 14 – 16

Census (Last day to drop/add with permission): Jan. 30 [MyCoyote](#)

Fall 2012 Grad check deadline, Feb. 1

Support for Students with Disabilities

If you are in need of an accommodation for a disability in order to participate in this class, please contact Services to Students with Disabilities at UH-183, (909)537-5238.