Sierra College
Math 33
Differential Equations/Linear Algebra
Fall Semester
2017

Instructor:

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Office Hours:

MWF: 7:00-9:30 am,
Office hours will be held in the Math
Lab, V329.

Materials:

Text: Differential Equations and Linear
    Algebra, 4th edition, by Goode
    and Annin; Pearson/Prentice Hall.

Calculator: A scientific calculator is sometimes
    allowed. In addition, a graphing calculator is
    recommended. Either a graphing calculator or
    a computer algebra system will be used
    periodically in the classroom for demonstration
    purposes. The graphing utility device is an
    excellent tool for acquiring the understanding
    of many of the concepts of this course due to
    its ability to rapidly investigate both the
    numerical and graphical aspects of these
    concepts. However, there will not be any
    opportunity to use graphing calculators, cell
    phones, or any other online devices on the
    quizzes and exams. A scientific calculator is
    allowed on some exams and quizzes.

Course Identification:

Math 33, Differential Equations/
                            Linear Algebra
Course Code #81689
V324, M-Th 12:30-1:50
6 units

Math Lab:

The Math Lab is located in V329.
This is free, walk in tutoring.
Hours: TBA

### *Prerequisites:*

Math 31, Calculus II. But Math 32,
Calculus III, is strongly
recommended.

Withdraw Date:

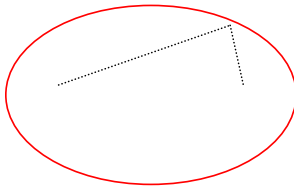September 4, without a W
October 30, with a W

Holidays:

September 4, Labor Day
November 23, Thanksgiving Day

Workload:

The material is treated with a scope and
intensity that requires the student to
study independently outside of class.
This course requires a minimum of two
hours of work outside the classroom for
every one hour in class.
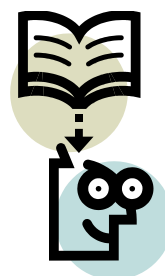
Attendance:

Attendance is not incorporated in
The final course grade.
Nevertheless, a solid attendance
record is necessary to succeed in a
course that is both rigorous and fast
paced.

Grading:

Quizzes: 100 pts
Exams: 400 pts
Final Exam: 150 pts

Quizzes:

There will be more than 10 quizzes, worth 10 points each. The top 10 scores will be used in the computation of your final course grade.

Homework:

Homework will be assigned daily, but will not be collected. Instead, a quiz will be given each Thursday (except those days on which we have an exam) covering the material from the previous homework.

Group Work:

Working with other students outside of class is strongly encouraged. The Math Lab is an ideal location for working with your peers. Weekly Review sessions are strongly encouraged.
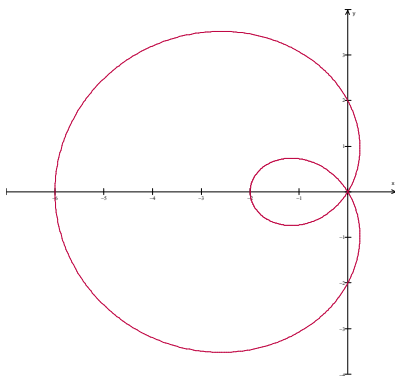
Exams:

There will be four 100 point exams and a 150 point comprehensive final exam. The lowest of the four regular exam scores or the quiz total will be dropped in the computation of the final course grade. The exam dates are given below:

Exam I: September 7
Exam II: September 28
Exam III: October 19
Exam IV: November 9
Final Exam: Week of Dec. 3

Honesty Policy:

Cheating is of course forbidden. College policy on cheating, as outlined in the student conduct code, will be strictly enforced.

Drop/Refunds:

A student must drop him/herself in order to be eligible for a refund. Instructor drops do not generate refunds.

Topical Outline:

I.   First Order Differential Equations
II.   Elements of Linear Algebra
III.   Linear Transformations and Linear Differential Operators
IV.   Linear Differential Equation
V.   Equations with Constant Coefficients
VI.   Laplace Transformations
VII.   Series Solutions
VIII. Matrices and Systems of Linear Equations

Student Outcomes:

Through homework assignments, quizzes, exams, projects & classroom discussions, the student will be able

Other Services:

The college tutor lab, in which one-on-one tutoring arrangements can be made, is

to:

1. Solve first and higher order ordinary and linear differential equations; using Laplace transformations, numerical, and series methods.
2. Utilize theorems from linear algebra and use matrices to solve systems of equations, including differential equations.
3. Utilize theorems from linear algebra to classify sets and mappings.
4. Logically present clear, complete, accurate, and sufficiently detailed solutions to communicate reasoning and demonstrate the method of solving problems.

located in the LRC 402. The proctoring center is located in LRC 441. A student ID must accompany the student if services here are accessed.

Miscellaneous:

1. No work will be graded if it is on paper from a ringed binder with frayed ends left attached.
2. You are responsible for keeping tabs on your grade. I will not be available for questions involving: "What is my grade"

If You Want Your Work to Be Accepted and Graded, Then the Following Must Be Followed:

- Remove any fringe from paper torn out of spiral notebook.
- Do not use graph paper unless it is used solely for graphing.
- All work must be clear and organized.
- A full name must be included.
- Any take home work must be turned in at the <u>very beginning</u> of class on the next class meeting. No late materials will be accepted.
- All paper turned in must be on paper that is approximately 8½ X 11.

Harassment and Discrimination:

Sierra College is committed to providing a safe learning environment, free of harassment and discrimination as described in District policies found on our website. It is my goal that you feel you can share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings and I will seek to keep information you share private to the greatest extent possible; however, I am required to report information about incidents of gender based discrimination, violence and harassment to the College's Title IX Coordinator.