Math 78 - Differential Equations
Sec 201, Reg ID: 120059

Instructor: Parran Vanniasegaram

Class Time and Location: MW 6:00 - 7:50 pm, MS-118

Office Hours: MTWTh 7:30 - 7:55 am, MW 11:55 am - 2:05 pm (MS-116)

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Please do not hesitate to contact me with any questions that you have. I am very happy to answer all of your questions!

Textbook: A First Course in Differential Equations with Modeling Applications, 11th Edition, by Dennis Zill

Calculator: You will need to purchase a calculator; it will be needed for some of the homework problems. Calculators will not be allowed on the exams.

Course Description: The course is an introduction to ordinary differential equations including both quantitative and qualitative methods as well as applications from a variety of disciplines. It develops techniques and theories needed to solve ordinary differential equations and their applications, including methods for solving first-order differential equations, linear differential equations of higher orders, and systems of linear differential equations. Students are introduced to Laplace transforms, series solutions, and some theoretical aspects of differential equations such as existence and uniqueness of solutions, the phase plane, and stability of equilibrium solutions for autonomous equations.

Time Commitment: As stated in the Evergreen Valley College course catalog, students are expected to spend at least two hours studying outside of class for each credit hour. That means you should be spending at least **four hours** on each homework assignment (reviewing the notes, reading the textbook, doing the homework problems, watching videos related to the course material, etc.).

Student Learning Outcomes: Upon completion of this course, the student will be able to:
1. Identify the type of a given differential equation, then select and apply the appropriate analytical technique for finding the solution of first-order and selected higher-order ordinary differential equations.
2. Apply the existence and uniqueness theorems for ordinary differential equations.
3. Create and analyze mathematical models using ordinary differential equations.
4. Find power series solutions to ordinary differential equations.
5. Compute the Laplace transforms and inverse transforms, and apply these transforms to solve linear differential equations.
6. Solve systems of linear ordinary differential equations by using substitution, elimination, or Laplace transform.

Disabilities Support Program and Services: If you have a physical or learning disability that requires special accommodations, please see the Disabilities Support Program Counselor. Contact me within the first week of class to communicate your accommodation needs.

Attendance: You are expected to attend all classes, arrive on time, and stay for the entire class; I take attendance every single class. I reserve the right to drop/withdraw students who are absent more than **two** times during the semester. If you miss class, please send me an email explaining the reason.

Withdrawal/Drop Policy: It is the ultimate responsibility of the student to formally drop the class. You should not rely on the instructor to drop you from a class for non-attendance. You may drop by telephone using the STAR system (408-223-0300), or online using the Self-Service System, or by completing the proper forms in the Office of Admissions and Records. To be eligible

for a refund of fees and/or prevent a recorded grade of "F" or "W", you must drop the class on or before the following posted dates:

February 11 - Last day to drop without a "W" and apply for a refund.
April 25 - Last day to drop with a "W".

Student Conduct: A student who is disruptive will be asked to leave the class. A student who refuses to leave the room will be dropped from the class and will be reported for further action. Please read the course catalog for more information.

Cell Phone Use: There is no reason to have your cell phone out during class. If I see your cell phone, I will ask you to put it away.

Academic Dishonesty: Cheating is absolutely forbidden in my class. Students who submit the work of others as their own or cheat on exams or other assignments will receive a failing grade in the course and will be reported to college authorities. Please look at Page 233 of the course catalog for more information.

Early Alert: Evergreen Valley College is committed to improving student success and believes that all students can succeed in their academic work and achieve their educational goals. Thus, it has enacted an Early Alert Program allowing instructors early in the semester to notify students who are struggling in their classes who might be at-risk of not passing the course. Once the instructor reports that a student is at-risk of failing the course, the student will receive an email and a follow-up phone call encouraging the student to talk to his/her instructor, seek tutoring (if needed), and/or use other on-campus resources available to students.

Homework is collected every class (after the first class) and the first twenty-one homework assignments are worth five points each. The last few assignments will be collected, but not graded. Late homework is not accepted under any circumstances. Your lowest homework score will be dropped.

Quizzes: After the first class, there will be a quiz given right at the beginning of every class (except for classes where there are exams). The first sixteen quizzes are each worth ten points. The remaining quizzes are ungraded. No makeup quizzes are allowed. Your lowest quiz score will be dropped.

Exams: There will be three exams and each exam is worth 100 points.

Final Exam: The final exam will be given on the last days of class and it is worth 250 points; it covers the entire semester.

Extra Credit: There is no extra credit given in this class. If you are interested in improving your grade, please spend more time working on the homework assignments.

Grading: It can be inferred from the last few lines that there are 800 total points.

Here is my grading scale:

A	B	C	D	F
90% - 100%	80% - 90%	70% - 80%	60% - 70%	0% - 60%
720 - 800 pts	640 - 719 pts	560 - 639 pts	480 - 559 pts	0 - 479 pts