## MATH 260 • Ordinary Differential Equations CRN: 23334 • MW 9:30 - 11:35 AM Spring 2018 Syllabus

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## **Required Materials:**

Text: William F. Trench, Elementary Differential Equations, open source textbook, available online as a

PDF: http://ramanujan.math.trinity.edu/wtrench/texts/TRENCH\_DIFF\_EQNS\_I.PDF

**Paper:** All graded work must be done on 8.5 x 11 in. or letter size paper. Points will be deducted for work

done on other sizes or spiral notebook paper.

<u>Course Description</u>: This course is an introduction to ordinary differential equations including both quantitative and qualitative methods as well as applications from a variety of disciplines. Introduces the theoretical aspects of differential equations, including establishing when solution(s) exist, and techniques for obtaining solutions, including, series solutions and singular points, Laplace transforms and linear systems.

Prerequisite: MATH 150B Calculus II or equivalent, with a grade of "C" or better.

Student Learning Outcomes: 1) Analyze a differential equation to determine an appropriate method of solution, and apply that method to determine the solution. 2) Model several types of applications by formulating appropriate initial value problems. 3) Cast a higher order linear differential equation as a first order linear system and, in simple cases, find all solutions to the system.

Contacting Me: The best way to contact me outside of office hours is by using email. My office hours are Monday, 9:30-10:30 AM, Tuesday 9:30-11:30 AM, Wednesday 9:30-10:30 AM, Thursday 9:30-11:00 AM.

<u>Homework</u>: I will assign and collect homework daily. Please read my homework guide on my website. **Late homework will NOT be accepted**. Your homework must be neat and organized, with the original problem, all of the necessary work, and the final answer circled or boxed. Disorganized and/or messy assignments with misleading information or correct answers that "magically" appear from incorrect work will receive no credit. Each section will be graded on a 5 points scale based on completeness. I encourage you to discuss the homework with classmates. However, you will be on your own during exams and quizzes, and the homework is designed to be preparation for these situations.

<u>Exams</u>: There will be 3 exams during the semester and one comprehensive final exam. Tests must be taken on the designated date. **Make-up tests will not be given.** In the event that it will help your grade, you may replace your lowest test score with your score\* on the final exam.

<u>Grades</u>: Your semester grade will be determined using the following scale, rounded to the nearest percent. A: 90 - 100%, B: 80 - 89%, C: 70 - 79%, D: 60 - 69%, F: Less than 60%.

If your adjusted test average (your test average after replacing your lowest test score with your score on the final exam) is less than 70% at the end of the semester, your grade will be equal to your adjusted test average. In other words, to earn a C grade or higher, you must finish with a test average of a C or higher.

If your adjusted test average is 70% or greater, your grade will be determined using the following scale:

Homework	10%
Exams	70%
Final Exam	20%

<u>Calculators</u>: Scientific calculators only. Graphing calculators will not be allowed on exams. You are welcome to use a graphing calculator or even a computer while working on homework, but you should not rely on them since they will not be available during exams. You may not use your mobile phone calculator on exams.

Student Honesty Policy: Cheating at the college level is a very serious offense. If I observe you cheating on any test or quiz, after the first incident you will receive a zero and a warning. If there is a second incident, you will receive another zero and the college administration will be contacted. A zero score on an exam that is the result of cheating will not be replaced by the final exam score.

<u>Attendance</u>: Attendance will be taken each class meeting. If you are absent for three days during the semester and you do not contact me, you will be **dropped from the course**.

<u>Fullerton College Policies</u>: The Fullerton College Catalog and the Class Schedule contain a number of policies relating to students that are important to you. Please be sure that you have read these publications thoroughly. You may purchase copies of these publications at the campus bookstore, or you may read them online at the Fullerton College website, www.fullcoll.edu

<sup>\*</sup>If you receive a zero on an exam for cheating, you may not replace that score with your score on the final exam