

Differential Equations
MATH 2326

Syllabus
TR 9:00am to 10:20am

Spring 2019
LART 204

Instructor: Julio César Urenda Castañeda

Office: Library 504

Hours: TWR 8:25am to 8:55am or by appointment

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Prerequisites: Calculus I-II (MATH 1411 and 1312). In particular, it is essential that you are comfortable with techniques of integration and the method of partial fractions.

Course Objectives: During the course you should expect (and I will expect) that you make considerable progress in the following areas:

- Apply standard techniques to analyze and solve ordinary differential equations: using analytical, numerical and qualitative methods; using the method of the Laplace transform.
- Be able to model with differential equations and interpret the results of their mathematical analysis.
- Understand the fundamental difference between linear and non-linear differential equations.

Textbook: Paul Blanchard, Robert L. Devaney, Glen R. Hall. **Differential Equations. Brooks/Cole, 4th edition**, Chapters 1,2,3,5 and 6 with selected topics from 4. We will skip some sections, as announced in class. The textbook is required at all class meetings. The parts of the textbook covered in class are intended to be read in advance.

Required Reading: Read each section that we cover in class, both before and after class. Skim the section before class, even if you do not understand it fully, to have some idea of what we'll be doing in class. Read it more carefully after class to clarify and fill in details you missed in class.

Warning: Sometimes, we will not “cover” all the material from a section in class, but instead focus on a particular aspect of the section. In such cases, I will point out in class which other parts of the section I expect you to read on your own.

Grading

Quizzes and Homework (20%) Suggested homework problems will be assigned most class days and will generally be discussed at the next class. There will be approximately 12 quizzes, with problems taken from the homework. Quizzes are closed-book, closed-notes. Missed quizzes **cannot** be made up, but your two lowest quiz scores will be dropped. It is very important that you do your homework before it is discussed in class. You will only learn the material by doing it yourself, not by watching others do it for you. Mathematics is not an spectator's game.

Midterm Exams (20%) There will be three in-class exams, exact dates will be announced in class. Makeup exams can be given only in extraordinary and unavoidable circumstances, and with advance notice.

Final (20%) The final comprehensive exam will be on

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| Tuesday, May 14 th from 10:00am to 12:45pm |
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Policies

Academic dishonesty: It is UTEPs policy, and mine, for all suspected cases or acts of alleged scholastic dishonesty to be referred to the Office of Student Conduct and Conflict Resolution for investigation and appropriate disposition. See Section II.1.2.2 of the Handbook of Operating Procedures.

Attendance: You are strongly encouraged to attend class every day. I expect you to arrive for class on time and to remain seated until the class is dismissed. Students who have six or more absences (excused or unexcused) or have demonstrated lack of effort will be dropped from the course with a grade of “F”. You are responsible to find out any assignment that must be made up if you are absent. My goal is for class meetings and activities to complement, rather than to echo, the textbook, and thus for every class to be worth attending.

Drop date: The deadline for student-initiated drops with a W is **Friday, April 5th**. After this date, you can only drop with the Deans approval, which is granted only under extenuating circumstances. I hope everyone will complete the course successfully, but if you are having doubts about your progress, I will be happy to discuss your standing in the course to help you decide whether or not to drop. You are only allowed three enrollments in this course, and students enrolled after Fall 2007 are only allowed six withdrawals in their entire academic career, so please exercise the drop option judiciously.

Courtesy: We all have to show courtesy to each other, and the class as a whole, during class time. Please arrive to class on time (or let me know when you have to be late, and why); do not engage in side conversations when one person (me, or another student) is talking to the whole class; turn off your cell phone (or, for emergencies, at least set it to not ring out loud), and do not engage in phone, email, or text conversations during class.

Disabilities: If you have, or suspect you have, a disability and need an accommodation, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148, cass@utep.edu, or Union East room 106. You are responsible for presenting to me any CASS accommodation letters and instructions.

Exceptional circumstances: If you anticipate the possibility of missing large portions of class time, due to exceptional circumstances such as military service and/or training, or childbirth, please let me know as soon as possible.