

MATH 3404C (8:30 - 9:20 MWF)

Differential Equations and Laplace Transforms, Fall 2011

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Office: SCEN 338 **Office hours:** 2:30-4:20pm, MW or by appt

Course Website: <http://www.mathematicians.org.uk/eoh/3404>

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Text: *Differential Equations with Boundary Value Problems* (seventh edition), Zill and Cullen, Thomson Brooks/Cole Publishers. We will cover most of chapters 1-5, 7, 8.

Prerequisites: MATH 2554/2564. Knowledge of the mathematical concepts learned in Calculus I, II, especially differentiation and integration techniques as applied to polynomials, exponential, and trigonometric functions.

Goals: Students will learn how to understand the language of differential equations, use them as models of physical processes in science and engineering, find and analyze their solutions, and employ the Laplace transform as an alternative means of finding solutions.

Grading: The course grade will be based on the total number of points earned in the class out a maximum of 100 using the percentage scale 80-100 A; 70-79 B, 60-69 C, 50-59 D, 0-49 F. Points are earned on homework (10 points) three in-class tests (20 points each) and a comprehensive final exam (30 points). Tests will be announced at least two weeks in advance. In addition there are two opportunities for extra credit. Quizzes will carry extra credit, are unannounced and may be given either in the drill or lecture section. You may also gain extra credit by creating artworks using ideas from differential equations (projects should be discussed beforehand to ensure that they will gain credit). No other extra credit will be offered.

Make-up Policy: University related absences should be declared at least one week in advance. There will then be an opportunity to make up any tests, and pop quizzes. Make-up will also be available for justifiable and documented absences.

Contact Policy: You are encouraged to come during the office hours, if this is not possible appointments can be made at a mutually agreed time. During office hours you have priority over the telephone. It will not be answered during your time. You should note the converse, that if you call during office hours you might not receive a reply. Email, is preferred and should include the number 3404 in the subject line and your name in the body of the email. It will receive a response (possibly by an announcement in class) within 48 hours, not including weekends.

Inclement Weather Policy: If the University is open, the instructors will make every effort to hold class. On-campus students are expected to be present. Off-campus students should make their own decision based on their individual circumstances and personal safety.

Special Accommodations: Students who are registered with the Center for Educational Access must notify the instructor in writing by the end of the first week of class, or within one week of registering with CEA.

Academic Honesty: As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.

Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' which may be found at <http://provost.uark.edu/> Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.