

Course Syllabus –Fall 2013
Mathematics 3315
Mathematical Modeling

Instructor: Mostafa Ghandehari

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Office Hours: M,W3:00-5:30 p.m., Tues.3:00:00-5:00 p.m. and by appointment

Course Content: The course covers applications of mathematics in physics, engineering, biology and economics. In particular topics include optics, mechanical vibrations, population dynamics, finance and economics and traffic flow theory. Other applied topics will be discussed.

Student Learning Outcomes:

The objective of the course is to prepare students to apply knowledge of mathematics to model practical problems in various fields.

Requirements: Calculus III or permission of instructor.

Required Textbooks: **Mathematical Models** by Richard Haberman published by SIAM(Society of Industrial and Applied Mathematics)

Major assignments and examinations:

Homework, two quizzes, two midterms and a comprehensive final examination.

Grading Policy: Grades are based on the following percentages. Two Quizzes 20% Two Midterms 50%, final Examination 30%. Course grades are assigned based on the following percentages: F 0-59, D 60-69, C 70-79, B 80-89, A 90-100. Other grades such as W or X will be assigned in accordance with the guidelines in the catalog.

Attendance Policy: Regular attendance is required.

Drop Policy: Please see university drop policy and deadlines.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available: The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week.

Librarian to Contact: Science and engineering library

E-Culture Policy: The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning

registration, financial aid, payment of bills, and graduation may be sent to students through email.

All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.

Make-up Exam Policy: Make up exams, quizzes and homework are not allowed.

Grade Grievance Policy: Grade grievances will be handled according to the policy described in the College of Engineering portion of the Catalog.
