Kent Pearce  
Office: Math 201-A  
Phone: 742-2566

Higher Mathematics for Engineers and Scientists I  
Math 3350-012  
MA 110 TR 11:00-12:20

Office Hours:  
Fixed Hours  
TRF 2:00 - 3:00  
Other Hours  
By Appointment

Text:  
Zill & Cullen  
Advanced Engineering Mathematics  
Third Ed., Jones & Bartlett

Website:  
www.math.ttu.edu/~pearce/courses.shtml

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Learning Objectives  
Students will understand the concept of differential equations, their solutions, and applications to physical sciences and engineering. In particular the students will learn to:

- recognize a differential equation and its solution
- compute solutions of first order differential equations
- compute solutions of linear differential equations
- use Laplace transforms
- recognize Fourier series
- find numerical solutions

Assessment of Learning Outcomes  
Assessment will be achieved through one or more activities, non-graded and graded, such as: attendance, class discussion, board work, electronic homework, examinations and other optional activities deemed appropriate by the instructor. It is important to note that these assessments are for your learning benefit. Class grades will be assigned according to the following rubric:

Grading  
In Class Tests:  
4 Exams @ 100 pts.  
Dates: 14 Jan, 18 Feb, 25 Mar, 27 Apr

WeBWorK:  
6 Electronic Homework @ 25 pts.  
Dates: See Calendar  
Web Address: http://webwork.math.ttu.edu/webwork2/spr10kpearcem3350

Final Exam:  
Comprehensive  
Date: Thursday, 6 May, 1:30 pm

Grade Total 750 pts.

Grading Scale  
A...100% - 90%  B...89% - 80%  C...79% - 70%  D...69% - 60%  F...59% - 0%
Technology

Graphing calculators (TI-83, TI-84, TI-89 or equivalent) and/or computer algebra software (Maple, Mathematica, Matlab) can be invaluable aids for facilitating learning. On the other hand, the course objectives are not centered around calculator proficiency nor computer expertise. Students may use a graphing calculator or computer algebra software while doing webwork assignments to facilitate: (1) learning of concepts; (2) understanding the material; (3) checking calculation details. The emphasis on mid-term exams and the final exam will be oriented towards assessing mastery of the concepts stated in the Learning Objectives section. To that end, calculators will not be allowed in the mid-term exams nor in the final exam.

Critical Dates

- Monday, 18 January, University Holiday
- Wednesday, 10 March, Mid-Semester Grades Due
- Wednesday, 24 March - Last day to drop a course
- Tuesday, 4 May - Last day of classes.
- Thursday, 6 May - Comprehensive Final Exam (1:30-4:00)

Notices

Academic Integrity (Extracted from OP 34.12)

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but it not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

Observance of Religious Holiday (Extracted from OP 34.19)

A student who intends to observe a religious holy day should make that intention known to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

Accommodation for Students with Disabilities (Extracted from OP 34.22)

Any student who, because of a disability, may require some special arrangements in order to meet course requirements should contact the instructor at MA 201-A as soon as possible to request necessary accommodations. Students should present appropriate verification from Student Disability Services. No requirement exists that accommodations be made prior to completion of this approved university process.