Math 244 Ordinary Differential Equations:
Section 003 Mon-Wed-Fri 1200 - 1250 Rodman room 0001
Dr.Bill Briden
Tyler 220 ofice hours TBA
Briden@math.uri.edu
Requirements: Mth 141 and 142 and 243. 215 is helpfull
Text: Ordinary differential Equations by Finizio/Ladas 3rd edition
A graphing calculator TI 89 or some other grapher

Course Objective:
We shall learn how to categorize and solve many of the classic types of 1st, 2nd and higher order of Ordinary Differential Equations. (ODE's)
We shall acquaint ourselves with existence and uniqueness theorems for first order equations.
We shall study linear systems and the Laplace Transform method as well as use series methods to solve some differential equations
We also examine numerous examples from the realms of engineering and science to appreciate the wide use of these methods.
We shall discuss, as well, the use of numerical methods, graphing calculators and MAPLE software in analysing differential equations.
Finally We discuss ways of analysing the qualitative behavior of solutions. (Sometimes this is the most important of all topics, since many if not most differential equations, can not be solved explicitly).
Attendance is Mandatory.

Grading will be based on:
3 hour exams(45 minutes).@ 100 pts apiece = 300 pts
6 Quizzes (10 pts each and 2 Maple assignments @ 2o pts each = 100 points
1 final exam worth 200 pts
This totals 600 pts.
Quzzes will be on Fridays as will be the exams.

A good effort in this course will prepare you for any career which involves Ordinary differential equations. Since all nature is continually undergoing change and mathematically, change is handled with derivatives. It's hard to envision any area of science where differential equations don't show up.
The Homework Suggested below wil be used as a guide along with lecture material to make up all exams and quizzes. It won't be collected nor graded. Your incentive in doing these problems should be obvious.

Hour Exam 1 on Feb 22
Exam 2 on Mar 29
Exam 3 on Apr. 27

Homework for Mth 244 sect. 03 Spring 08

Section	Problems
1.1	1,5,9,11,14,18,20,26
1.2 1st	1,3,4,7,9,10
1.3 order	1,11,19,24,33
1.4	5,7,17,31,35,41,44,45
1.5	1,5,11,15,25,32,41
1.6	1,7,12,19,23,29
1.7	3,7,11,12
1.8	1,2,5
2.1	1,2,3,5,6,8,9
2.2	3,7,8,30,33,41
2.3 2nd	1,7,11
2.4 order	5,7,11,19,35
2.5	5,20,23,35,41,43
2.7	7,11,19,31,37
2.8	5,7,14,29
2.9	5,10,14
2.10	7,11,19,23
2.11	1,7,14,23,29,41
2.12	5,7,11,23
3.1 Linear	5,7,11,29
3.2 Systems	5,7,11,16
3.3	5,7,19,23,29,35
4.2 Laplace	4,7,14,28,31,49
4.3 transforms	5,7,28,31
5.2	7,11,19
5.3 Series	7,11,14
5.4 Methods	4,7,19,20
5.5	7,11,23,29
7.2	1,7,11