THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF MATHEMATICS

Course #: MATH 4329 (CRN 21831)
Course Title: Numerical Analysis
Credit Hrs: 3
Term: Spring 2014
Course Meetings & Location: MW 1:30-2:50, BELL 130A
Prerequisite Courses: MATH 3323 or MATH 4326
Course Fee: (if applicable) None
Instructor: Granville Sewell
Office Location: Bell 200
Contact Info: Phone # 747-6762
E-mail address sewell@utep.edu
Fax # 747-6502
Emergency Contact
Office Hrs: MTR 12:00-12:50
Textbook(s), Materials:
Suggested: Students will

Course Objectives (Learning Outcomes):

a. Become familiar with some of the more popular numerical algorithms for solving certain mathematical problems, such as nonlinear and linear algebraic systems, differential equations, eigenvalue extraction and numerical quadrature.
b. Gain experience writing computer programs to implement some of these algorithms.
c. Learn how to determine the complexity of an algorithm, that is, the asymptotic dependence of computer time on problem size.
d. Learn how to analyze the truncation error of an algorithm, for example, to determine the dependence of error on discretization size.
e. Learn how to anticipate roundoff errors associated with the use of finite precision arithmetic, and to be aware of the type of algorithms which are likely to suffer from serious roundoff error.
f. Learn to choose among competing algorithms for particular applications, taking into account algorithmic complexity, accuracy and stability

Course Activities/Assignments: There will be homework assigned regularly, which will include computer (MATLAB) projects.
Assessment of Course Objectives: Grades will be based on homework and exams, details are at the course website, www.math.utep.edu/Faculty/sewell/4329/4329g.htm
Course Schedule: Complete homework and test schedule is given at the class website, www.math.utep.edu/Faculty/sewell/4329/4329g.htm
Grading Policy: 20% based on homework, 60% based on three tests, 20% based on final exam. Details are at course website, www.math.utep.edu/Faculty/sewell/4329/4329g.htm
Make-up Policy: Late homework not accepted. Make up tests will be given for excused absences.
Attendance Policy: None

Civility Statement:  None

Disability Statement:  If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by e-mail to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Military Statement:  If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact your instructor as soon as possible