Syllabus for Math 408/508 Fall 2009
Applied Numerical Methods I
Ed 128 : TTH 5:45pm- 7:00pm

Textbook: Numerical Analysis
By Timothy Sauer (Addison Wesley)
ISBN 0-321-26898-9

Instructor: H. Kaneko, PhD
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Office Hours: 11:00-12:15, 13:30-14:30 TTh: Others by appointments.

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Course Website: http://www.lions.odu.edu/~hkaneko/teaching/Fall09/316.htm

Course Objectives:
To obtain knowledge of numerical methods and error analysis used for approximating solutions to various problems arising in applied mathematics, engineering and physics. In particular, we will study solutions of nonlinear equations, solutions of system of linear equations, interpolation, polynomial approximation, numerical integration and differentiation and numerical solution of ordinary differential equations.

Grading System:

Final Grade = 0.5 * Three Tests Ave + 0.20 * HW +0.30 * Final Exam

Test Dates to be announced.

Honor Code:
By enrolling in this course, you agree to adhere to the honor code on all written work: “I pledge to support the Honor Code of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of academic community, it is my responsibility to turn in all suspected violators of the honor code.”

Computing Policy:

A student is permitted to use a hand-held calculator or any other commercially available mathematical softwares, such as Matlab, Mathematica etc on homework exercises. An accessibility to a programming language such as Fortran, C++, Matlab, Mathematica is a plus. Matlab is installed on PCs in Ed126. A student version of Matlab can be purchased from MathWorks for about $100. Matlab tutorials are widely available on internet. For example, http://www.duke.edu/~hpgavin/matlab.html lists several such sites.

Attendance and Make-up Policy:
A student who must miss class is expected to get the notes from other students. A make-up exam will be given only in the case of documented illness and in other exceptional circumstances for which the student must provide documentation.

Topics Covered:
Selected topics from Chapters 1, 2, 3, 5 and 6 will be covered.

Important Dates:

Monday, September 7 – Labor Day Holiday
Friday, October 2 – Last Day to withdraw w/o instructor's signature
Saturday, Oct 10 –Tuesday, Oct 13 – Fall Holiday
Wed – Sun, November 25-29 Thanksgiving Holidays
Friday, Dec 11 – Classes end