MATH 581 Numerical Methods for Linear Systems Spring 2008

Section 1, TuTh, 7.00 - 8.15 pm at JR 202

Instructor:

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Office Hours: Tu 2 – 3 and 5.30 – 6.30, and Th 5.30 – 6.30 at SN 125

Course Website: www.csun.edu/∼jb715473/math581.html

Text: "Numerical Linear Algebra ", by L. Trefethen and D. Bau, III, SIAM

Math 581 is an advanced course in Numerical Linear Algebra. The course covers direct methods for solving linear systems such as LU factorization, Cholesky factorization, the Least Squares method; iterative methods such as the Jacobi, Gauss-Seidel, SOR and Conjugate Gradient; and eigenvalue problems.

Prerequisites: MATH 462

Homework

A total of six homework sets will be assigned and collected in class, these will include (paper and pencil) problems and computer exercises (MATLAB). Students may work together in groups and discuss the homework problems with each other, but each student should write up and submit their own solutions. The homework should be written neatly. Please staple the sheets together.

Computer Lab and Software: The class will meet at the computer occasionally as needed to develop familiarity with MATLAB or to discuss the computational exercises in homework assignments

Grading

Homework	= 35%	
Midterm exam	= 25%	Thurs. Mar. 13, 7.00 – 8.15 pm (tentative)
Final exam	= 40%	Thurs. May 13, 8.00 – 10.00 pm

Advice

1. Questions in class are encouraged -if something is unclear, ask a question.
2. Take notes in class and review them regularly. When you review the notes, make a list of anything that is unclear and ask your instructor about these points, either in class or office hours.
3. On homework and exams, show your work and explain the steps clearly. Getting the correct answer is fine, but you must also explain it clearly so someone else can understand.