

Call # 14471
Times: 11:00 – 12:15 TR
Room: ED 128

Math 621

Numerical Linear Algebra

Fall 2004

Instructor: Dr. Glenn Williams
Office: ECS 2111, Office Hours: 12:30-1:30pm, 3:00-4:00pm, Tue & Thur. Other times by appointment.
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Course Website: <http://www.lions.odu.edu/~gwilliam/teaching/m621-f04/>
The website contains general announcements, syllabus, information for assignments, and the website for our textbook. Students are encouraged to check it frequently.

Catalog Description: A graduate-level introduction to numerical algorithms for linear algebra problems. Algorithms will be designed and analyzed for efficiency and accuracy. General principles of numerical analysis will also be covered. Specifically, topics will include SVD, QR, LU and Cholesky factorizations, conditioning and stability analysis, eigenvalue and least-squares problem, and iterative methods for solution of linear algebra problems.

Prerequisites: MATH 312 (Calculus III) and 316U (Introductory Linear Algebra) or equivalent.

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

Grading Policy: **Take-Home Assignments: 80% (total of 9 assignments given, highest 8 scores counted)**
Final Assignment: 20%

Grading Scale: 90-100: A, 80-89: B, 70-79: C, 60-69: D, 0-59: F
+/- grades will be used for the final grade at the discretion of the instructor

Last day to withdraw : Tuesday, October 26.

Disability Services Policy:

Reasonable accommodations will be made for students with disabilities provided those students have registered with the Office of Disability Services (683-4655).

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 System 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 the academic community, it is my responsibility to turn in all suspected violators of the honor code.

Computing Policy:

Assignments will require the writing of computer programs for use on personal computers. Students are free to use the programming language of their choice. MATLAB will be used for demonstration purposes, and some familiarity with MATLAB will be required in order to run programs provided by the instructor. MATLAB programming is not required although it may be used to complete assignments.

Attendance Policy:

A student who must miss class is expected to get the notes from other students. Although excessive absences can have a **considerable** negative effect on a student's learning and performance, absences from class are not counted.

Make-Up Exam Policy:

There will be no make-up assignments. Under exceptional circumstances, beyond the student's control, the final assignment grade may be recorded for ONE (and only ONE) missed assignment. The student must provide written documentation of the reason for missing the assignment, no later than one week after the assignment is due. If the instructor approves this explanation, the assignment grade will be adjusted accordingly. Otherwise, a score of zero will be entered for the missed assignment.