## Applied Linear Algebra

MA 632-22, Winter 1999

Class meets Tuesdays and Thursdays  $10{:}25{-}12{:}30\mathrm{pm}$  in Room 128 CB

Instructor: Dr. Nikolai Chernov

**Text:** Classnotes and D. Watkins *Fundamentals of Matrix Computations* (numerical computations)

**Syllabus:** Linear transformations in inner product spaces, matrix factorizations, sensitivity and stability, overdetermined linear systems, Schur decomposition and singular value decomposition, computation of eigenvalues and eigenvectors, iterative methods.

## Grading policy:

Weekly homework assignments	20~%
Programming assignments	10~%
Midterm exam (Feb. 11)	30~%
Final exam (Mar. 11, 9-12noon)	40~%

Assignments and tests: Homework will be assigned weekly on Tuesdays, unless announced otherwise. HW will be due the next Tuesday after assignment. Programming assignments will be given from time to time, and will be due one week before the final exam. You may program in Fortran or C or Pascal or Basic. If you wish to use a computer language other than above, you will need the instructor's permission.