Computational Linear Algebra
Math 6800, Fall 2014

Instructor: W.D. Henshaw (henshw@rpi.edu), Office: Amos Eaton 304

Lectures: Carnegie 113, Monday and Thursday, 10–11:50am.

Class web page: See link from www.rpi.edu/~henshw (homework will be posted here).

Office Hours: Monday 2:00-4:00pm, Wednesday 2:00-4:00pm, or by appointment.


Outline: The course will follow the text book fairly closely, with a few additional topics as time permits. Main topics include

1. QR factorization, singular value decomposition and solution of least squares problems.
2. Conditioning, stability, backward error analysis.
3. Direct solution to systems of equations - Gaussian elimination.
5. Iterative solution of linear systems.

Grading: Course grade is based on home-work (40%), 1 midterm exam (20%), and the final exam (40%).