Lecture topics: Finish discussion of nonlinear equations in one variable. Begin discussion of numerical linear algebra.

- Secant method
- General results on fixed point methods
- LU factorization, operation counts, pivoting
- Structured matrices

Reading: Chapters 6,7 in course text: “Numerical Methods: Design, Analysis, and Computer Implementation of Algorithms”.

Additional Reading: Chapters 3,4,5 (Linear Algebra background and Linear Algebra algorithms) from draft of Goodman and Bindel’s text Principles of Scientific Computing.