

## **Midterm Exam: Wednesday, March 10, 2010**

**Chapter 1 (1.1-1.4):** convergence, floating point representation, floating point arithmetic

**Chapter 2 (2.1-2.6):** rootfinding methods (bisection, fixed point iteration, Newton's, secant, accelerated convergence methods)

**Chapter 3 (3.0-3.2, 3.5, 3.7, 3.8):** direct and iterative methods for solving a system of linear equations (Gaussian elimination, LU decomposition, pivoting, Jacobi, Gauss-Seidel, SOR methods)

**Chapter 6 (6.2):** numerical differentiation

**Appendix A:** Important theorems from calculus

**Appendix B:** Algorithm for solving a tridiagonal system of linear equations

**Lecture notes**

**Homework assignments**