## Applied Mathematics 261b

Robert M. Corless WSC 115

Monday, Wednesday 8:00–9:00am KB 203

## 1 Textbook

G. Recktenwald, Numerical Methods with MATLAB, Prentice-Hall.

## 2 Syllabus

The topics below will be covered, not necessarily in this order.

- 1. Introduction
- 2. Interactive use of MATLAB (Chapter 2)
- 3. Programming with MATLAB (Chapters 3 and 4)
- 4. Root finding (Chapter 6)
- 5. Linear algebra review (Chapter 7)
- 6. Solving linear systems (Chapters 8 and 9)
- 7. Interpolation and numerical integration (Chapters 10 and 11)
- 8. Numerical solution of initial value problems (Chapter 12)

## **3** Assessment

Three assignments using MATLAB: 60% Final written exam: 40%