In this class you should learn:

• How to analyze the in the two-point Newton-Cotes formula (the trapezoid rule)

• The three point Newton-Cotes formula, or Simpson’s rule. Any this is surprisingly accurate

• Newton-Cotes vs. Chebyshev quadrature vs. Gauss quadrature

• How we can combine Newton-Cotes formulas into piecewise rules

Numerical integration!

Intro to solving ODEs on a computer

Consistency, stability, and local truncation error

Next class

Chapter 11

Next next class

Section 11.4