

Tentative Syllabus

Math 126 – Calculus 2

Spring 2007

Part 1: Integration

Analytic integration techniques; numerical integration; integration with technology

Sections 6.10, 7.1, 4.7, 4.8, 7.2, 7.3, 7.4, 7.7

Approximately 6 class days and one project day

Quiz #1 on integration anticipated Friday February 23

Part 2: Differential equations

Review of DE's; slope fields; vector fields; phase planes; dynamical systems

Sections 2.3, 2.4, 7.8, 7.9, 7.10, 7.11

Approximately 5 class days and one project day

Part 3: Polynomial approximations of functions

Review of tangent lines; quadratic and higher order polynomial approximations

Sections 8.1, 8.2, possibly 8.4

Approximately 2 class days and one project day

Quiz #2 on DE's and polynomial approximations anticipated Friday March 23

Part 4: Sequences and series

Infinite sequences; infinite series; power series; Taylor series

Sections 5.1, 5.2, 8.3, 9.1, 9.2, 9.3, 9.4

Approximately 5 class days and one project day

Quiz #3 on sequences and series anticipated Friday April 20

Part 5: Convergence of infinite series and convergence tests

The comparison test, ratio test, and integral test; alternating series; intervals of convergence

Sections 9.5, 9.6, 9.7, 9.9, 9.11, 9.12

Approximately 6 class days and one project day

(5 extra days for catch-up or extra topics)

Monday March 14: Review for final exam

Monday March 21, 2:30–4:30: Final exam