Section, topic, assignments. Assignments (textbook problems are optional) 11-Jan Ch. 1 Review of functions Review, p. 56 #1,2,3,5,6,8-12,16-19 12-Jan Pretest, Assignment A1. A1: Review 13-Jan Mathematical induction, handout. 16-Jan Martin Luther King, Jr. Day 17-Jan Worksheet 1. 18-Jan 2.1 Tangent and velocity problems §2.1 #1,2,3,5,6,8,9 2.2 Limit of a function §2.2, #2,4,5,6,9,12,13,15,25,28 19-Jan Assignment A2, practice quiz 1 A2: Tangents and velocity 20-Jan 2.3 Calculating limits using the limit laws §2.3 #1,2,11,13,15,17,20,22,28,39,40,49 2.4 The precise definition of a limit (lightly) §2.4 #1,2,3,4,5,6,9,10 23-Jan 2.5 Continuity §2.5, #1,3,4,5,6,7,9,11,17,21,37 12m submission deadline for A1 and A2 24-Jan Assignment A3, Practice quiz 2 A3: Limits 25-Jan 2.6 Tangents, velocities and rates of change §2.6 #1,2,3,5,13,15,17,18,23 Worksheet 1 due in class 26-Jan Assignment A4, Worksheet 2. A4: Tangents, velocity, rates of change 27-Jan 3.1 Derivatives §3.1 #3,4,6,7,9,12,15,16,19,22,25,26 30-Jan 3.2 The derivative as a function §3.2 #1,2,4,7,10,12,17,25,36,39,41 12m submission deadline for A3 and A4. 31-Jan Assignment A5 A5: The derivative 1-Feb 3.3 Differentiation formula §3.3 #5,10,16,18,21,25,28,33,40,44,53,57,58,62 Worksheet 2 due in class Last day to drop 2-Feb Assignment A6, practice quiz 3 A6: Differentiation rules 3-Feb Review 6-Feb Review 12m submission deadline for A5 and A6. 7-Feb R1 (not graded) First exam, 7:30-9:30pm room TBA. 8-Feb Appendix D, Trigonometry Appendix D, #1,4,7,10,13,15,23,26,29,30,31, 9-Feb Assignment B1 B1: Trigonometry review 10-Feb 3.5 Derivatives of trigonometric functions §3.5 #3,6,9,12,18,29,30,35,36,43 13-Feb 3.6 The chain rule §3.6 #1,5,6,7,10,15,16,19,25,28,45,46,55,56 12m submission deadline for B1. 14-Feb Assignment B2, worksheet 3 B2: Derivatives of trigonometric functions 15-Feb 3.7 Implicit differentiation §3.7 #3,4,7,10,14,15,26,29,35,39 16-Feb Assignment B3, practice quiz 4 B3: The chain rule 17-Feb 3.8 Higher derivatives §3.8 #1-3,11,18,25,26,39,41,44,49,50,53 20-Feb 3.9 Related rates §3.9 #1,2,4,6-8,10-12,14-17,20-22 12m submission deadline for B2 and B3. 21-Feb Assignment B4, practice quiz 5 B4: Implicit differentiation and higher order derivat 22-Feb 3.9 continued Worksheet 3 due in class. 23-Feb Assignment B5, worksheet 4 B5: Related rates 24-Feb 3.10 Linear approximation §3.10 #1,3,7,8,13,15,27,31,32,37 27-Feb 4.1 Maximum and minimum values §4.1 #1,2,3,4,5,9,11,17,18,23,47,48,52 12m submission deadline for B4 and B5. 28-Feb Assignment B6. **B6:** Linear approximation 1-Mar 4.2 The mean value theorem §4.2 #1,3,5-8,15-19,22 Worksheet 4 due in class. 2-Mar Assignment B7, practice quiz 6 B7: Extreme values and the mean value theorem 3-Mar Review 6-Mar Review 12m submission deadline for B6 and B7. 7-Mar R2 (not graded)

7:30-9:30 pm Exam 2, room TBA

MA 113, Calculus I Spring 2006 8-Mar 4.3 Derivatives and the shape of a graph §4.3 #1,2,5,6,7-9,11-17,22-26,29,31,33 7-Mar Assignment C1 C1: Derivatives and the shape of a graph 10-Mar 4.4 Limits at infinity §4.4 #1-4,9,11,13,15,17,19,21,23,35,37,39,43,58 Last day to withdraw 13-18 Mar Spring break 20-Mar 4.5 Summary of curve sketching §4.5 #3,12,13,17,23,27,31 12m submission deadline for C1. 21-Mar Assignment C2, worksheet 5 C2: Summary of curve sketching 22-Mar 4.5 continued §4.6 #20,21,26,27 23-Mar Practice quiz 7 24-Mar 4.7 Optimization problems §4.7 #2,3,6,7,10,16,19,22,29,32,35,51,52. 27-Mar 4.7 continued 12m submission deadline for C2 28-Mar Assignment C3, practice quiz 8 C3: Optimization 29-Mar 4.9 Newton's method §4.9 #1,4,5,6,11,27,31,34,35 Worksheet 5 due in class. 30-Mar Assignment C4. worksheet 6. C4: Newton's method 31-Mar 4.10 Anti-derivatives §4.10 #1,3,5,7,21,23,25,31,36,37,39,40,53,55,68,1 3-Apr 5.1 Areas and distances §5.1 #1,3,4,5,11,12,20,22 12m submission deadline for C3 and C4. 4-Apr Assignment C5. C5: Anti-derivatives 5-Apr 5.2 The definite integral §5.2 #1,7,9,17,19,25,29,30,33-36,39,47-49,55,57 Worksheet 6 due in class. 6-Apr Assignment C6, practice quiz 9 C6: Areas and distances: the definite integral 7-Apr Review 10-Apr Review 12m submission deadline for C5 and C6 11-Apr R3 (not graded) 7:30pm-9:30pm, room TBA. 12-Apr 5.3 The fundamental theorem of calculus §5.3 #1,7-11,13,19,21,23,25,27,31,33,51, 13-Apr Assignment D1 D1: The fundamental theorem of calculus 14-Apr 5.4 Indefinite integrals §5.4 #1,3,17,19,21,23,25,31,33,43,46,48 17-Apr 5.5 Substitution §5.5 #1,3,9,11,13,15,17,19,21,27,37,39,45,49,57, 12m submission deadline for D1 18-Apr Assignment D2, practice quiz 10 D2: Substitution 19-Apr 6.1 Areas between curves §6.1 #1,2,5,7,11,13,21,22,24,45 20-Apr Assignment D3, worksheet 7 D3: Area 21-Apr 6.2 Volume §6.2 #1,3,12,13,14,47,48,49,53 24-Apr 6.3 Volume by cylindrical shells §6.3 #1,9,11,13,15,17,43,45. 12m Submission deadline for D2 and D3 25-Apr Assignment D4 D4: Volumes 26-Apr Review Worksheet 7 due in class 27-Apr Assignment R4 (not graded)

12m submission deadline for D4

1-May Final exam, 6-8pm room TBA

28-Apr Review