PCC Math 251 and 251lab, Winter 2012, Instructor: Jeff Pettit. This is a rough schedule. We may get ahead of schedule or we may fall behind. Changes will be outlined in class as needed.

1 Jan 10&12	The Tangent and Velocity Problems The Limit of a Function	2.1 2.2	1,2,3,5,7-9 1,2,3,5,8,10,15,17,19,22,25,28,30
2 Jan 17&19	Calculating Limits Using Limit Laws Continuity **Thur: Lab Set 1 (1-6) Write-Up due**	2.3 2.4 **Lab1**	1-3,5-9,11-17odd,18,20,21,25,27,28,32,35,38,39,41,43,46 1-4,6,7,9,10a&b,11-15,17-19,23,25,26,29,31-36,39,41,42,45 Labs 1-6, E1 (all)
3 Jan 24&26	Limits Involving Infinity Derivatives and Rates of Change The Derivative as a Function	2.5 2.6 2.7	1-5,7,9,11-13,15,16,19,2325,27,28,31-39odd,43,47,51,54 1-4,7,10,11,13-15,17,19,21,22,24,25,28,32,41,44,47,48 1-3,5,7-9,11-17,19,20,25,27,28,31,-33,35,36,41-43,49 Labs 7-18, E2 (all)
4 Jan 31 & Feb 2	What Does f' say about f? **Thur: Exam 1** – Lectures from Weeks1-3	2.8 **Exm1**	1-7odd,8,9-15odd,16,17-27odd,28,29,32 Labs 19-24, E3 (all) and E4.1-E4.5
5 Feb 7&9	Derivatives of Polynomials and Exponential Functions **Thur: Written part of project due** (Explain topic, data, diff.quo., 4 regressions and mathematical&logical choice for best fit regression)	3.1 3.2 **Proj1**	1-3,7-12,19-25odd,26,28,29,31-35odd,40,43-46,48,53,58,59,63 1-5,7-10,13,15,16,21,23,25,29,31,32,36,38-41,43,45,48-50,57
6 Feb 14&16	The Product and Quotient Rules The Chain Rule	3.3 3.4	2,3,5,9,11,13-14,17-19,23,26,29,32,35,36,41,42,46,47 1,2,4,5,7,8,11-13,15,16,19,25-27,30,31,33,37,39,41,45,46,51,53,55-57,67,73-75 Labs 25-26, E4.6-4.10
7 Feb 21&23	Implicit Differentiation Derivatives of Logarithmic Functions (Derivative Skills Test can be taken after mastering up through Sec. 3.7) **Thur:Lab Set2 (7-26) Write-Up due**	3.5 3.7 **Lab2**	1-4,7-13odd,16,17,23,25,27,32,33,36,48,51,54 1,3,5,9,10,11-21odd,22,23,25,27,28,31,35,37,39,42 Labs 27-37, E5
8 Feb 28 & March 1	Rates of Change in Nat. and Soc. Sci. **Derivative Skills Test** Related Rates **Thur: Project Presentations/Displays** (explain topic, data/regression, compare diff. quo. to regress. derivative)	3.8 **DST** 4.1 **Proj2**	2,3,5,6,8,9,12a,13,18,20,25,27,30,34 1-4,6,11,12,14,15,17,19,20,22,23,25,26,29,31,33,37,38,42 Labs 38-41, E6
9 March 6&8	Maximum and Minimum Values **Thur: Exam 2**– Lectures from Weeks4-8	4.2 **Exm2**	1,4,5,9-11,17,26,27,29,33,35,37,40,43,45,47,51,59,61,63
10 Mar 13&15	Derivatives and the Shape of Curves	4.3	1-3,5,6,8,9,13-15,18-20,23,27,30-32,35,36,39,41,49,65,66
Final Tues March 20	**Final Exam Tuesday, March 20 9am-11am** (No class Thursday)		