

Fall 2015 Math 105L Syllabus
Textbook: Calculus (6th ed), by Hughes-Hallett, et al.

Day	Date	Section	Topic	Homework
1-1	24-Aug		Course Expectations, Reviewing Algebra Expectations	Online Algebra Assessment
1-2	26-Aug		Precalculus Concept Assessment, Writing in Mathematics	Online Writing Assessment (must be done before lab)
Lab:	27-Aug		Cancer Mortality: Fitting a Line to Data	
1-3	28-Aug		Introduction to Modeling	1.1/5,7,10-13; Cspk p.15/1-9
2-1	31-Aug	1.1	Functions	1.1/1,3,20-23,39,44-48; Chapter 1 Review/9; Cspk p.17/1-6.
2-2	2-Sep	1.1	Linear Functions	1.1/15-19,27-31,43,57,60; Cspk p.21/1,2,4-6.
Lab:	3-Sep		Linear Modeling	
2-3	4-Sep	1.6	Power Functions & Polynomials	1.6/4,6,17-19,23,31-34,39-41,42; Cspk p.25/1,2 (You may assume that a quadratic function reaches its max or min half way between its zeros)
3-1	7-Sep	1.6	Rational Functions	1.6/7-9,28,37,43,44,49; Chapter 1 Review/73; Cspk p.26/3-5.
3-2	9-Sep	1.3	New Functions From Old	1.3/4-7,12-17,22,28-32,34;Cspk p.29/1-6.
Lab:	10-Sep		Exploring Limits	
3-3	11-Sep	2.1	Rate of Change	2.1/1,4,5,8,11-14,16,18-23.
4-1	14-Sep	2.2	Derivative at a Point	2.2/1,6,9-12,14-19,27,41,43,46,47,50; begin 5-2 review.
4-2	16-Sep		Catch Up Day	
Lab:	17-Sep		Strategies for Buying Stock	
4-3	18-Sep	1.7,1.8	Limits and Continuity	1.7/1-6,15,20,31,37; 1.8/1,29-31,39,41,64,66,69; Chapter 1 Review/77.
5-1	21-Sep	2.3	The Derivative Function	2.3/3,5,7,21,26-28,31,35-38,40,43,48,54; finish 5-2 review
5-2	23-Sep		Review	Chapter 1 Review: 11(a-f),28,31,34,35,37,38, 42-45,47,58,71 (Hint for 35: y is not a function of x, but x is a function of y...) Chapter 2 Review: 6,13,15,20,31,32,34,43,44,46,49,50; 1.7/21; 1.1/40; 1.6/35
Lab:	24-Sep		Test 1	
5-3	25-Sep	2.4	Interpretations of the Derivative	2.4/1,3,4,6-9,11,12,22,26,28,32; Chapter 2 Review/55
6-1	28-Sep	2.5	The Second Derivative	2.5/2-13,16,18,19,24,26,31; Chapter 2 Review/56
6-2	30-Sep	2.6	Differentiability	2.6/1-5,8-10,16.
Lab:	1-Oct	3.1	Sum, Difference & Power Rules	3.1/1,2,6,8,10,11,16,21,23,25,27,35,42,57,58,61, 63,70,75,78; Chapter 3 Review/82
6-3	2-Oct	3.2	Product and Quotient Rules	3.3/1,13,14,18,21,22,28,31-33,44,45,52,56,57,61,62; Chapter 3 Review/3, 65
7-1	5-Oct		Compound Interest	Cspk p.31/1-11
7-2	7-Oct	1.2	Exponential Functions	1.2/9,12,15,16,19,25,31-34,40-42. (Hint for 34: see Day 3-2, 'New Functions from Old', and think about flipping and shifting graphs.)
Lab:	8-Oct	1.3	Inverse Functions	1.3/19,20,23,24,42-46,56,63,66; Cspk p. 33/1-3

7-3	9-Oct	1.4	Logarithms	1.4/1-10,14-21,24,30,31,55,32,39,63; Chapter 1 Review/61,64; Cspk p.35/1-5
8-1	12-Oct	<i>Fall Break</i>		
8-2	14-Oct	3.2	Differentiating Exponential Functions	3.2/1,6,8,9,13-15,19,21,23,24,43,44;3.3/6,10,25, 55,58.
Lab:	15-Oct		Log Plots	
8-3	16-Oct	1.3	Composition	1.3/13,15-17,64,68; Cspk. p.37/1-5
9-1	19-Oct	3.4	Chain Rule	3.4/4,10,23,26,38,47,51,53,57-65,75-77,79,80,94; Cspk p.39/1-6; begin 10-2 review.
9-2	21-Oct	3.7	Implicit Differentiation I	3.7/1,3,9-12,19,20,22,26,30,31-36,40
Lab:	22-Oct		Implicit Differentiation II	
9-3	23-Oct	3.6	Differentiating Logarithmic Functions	3.6/9-11,14,15,29,36,38,43,45,46,49; 3.7/13,14,27 Chapter 3 Review/53; finish 10-2 review.
10-1	26-Oct	3.9	Linear Approximations	3.9/1-3,5-8,14,15,25,26,38.
10-2	28-Oct		Review	1.2/41; 1.4/34,49; Chapter 1 Review/59,60; 2.4/17,18; Chapter 2 Review/17,41,54,60,62; 3.1/24,67; 3.3/17; 3.7/37,41; Chapter 3 Review/5,13,19,23,38,45,74,76,93,94 95(a-d,f),96(a-d,f),106; Cspk p.41/1-21,a-d. Cspk p.43/1-4.
Lab:	29-Oct		Test 2	
10-3	30-Oct	4.1	Using 1st & 2nd Derivatives	4.1/1-3,9-15,24-26
11-1	2-Nov	4.1	Using 1st & 2nd Derivatives	4.1/20-22,27-31,33,34,37,38,40,43-46,48.
11-2	4-Nov		Catch Up Day	
Lab:	5-Nov		Derivatives and Roots	
11-3	6-Nov	4.2	Optimization	4.2/11,12,15,26,29,31; 4.3/50,52
12-1	9-Nov	4.3	Optimization	4.3/17,33,39,41,42,46; Chapter 4 Review/67,69,71
12-2	11-Nov	4.7	L'Hôpital's Rule	4.7/1-3,6-8,10,11-19,25-28,31; Cspk p.45/1-10
Lab:	12-Nov		Relative Rates of Growth, Differentiation Practice	
12-3	13-Nov	4.3	Optimization	4.3/23;Cspk p.47/1,3,6,9;Cspk p.49/1,3,5.
13-1	16-Nov		Review	Chapter 4 Review/1-3,6,8,9,12,13-24,29-32,39-45, 47-51,56, 62,64-66,69-72,80
13-2	18-Nov		Test 3	
Lab:	19-Nov		SKUNK + Probability I	Cspk p.55/1-8
13-3	20-Nov		Probability II	Cspk p.61/1-10
14-1	23-Nov		Probability III	Cspk p.67/1-11
14-2	25-Nov		<i>Thanksgiving Break</i>	
Lab:	26-Nov		<i>Thanksgiving Break</i>	
14-3	27-Nov		<i>Thanksgiving Break</i>	
15-1	30-Nov	4.6	Related Rates	4.6/1,3,5,11,15,21,30,34,35,41
15-2	2-Dec	4.6	Related Rates	4.6/13,26,28,29,33,34,38
Lab:	3-Dec		Review	Redo probability worksheets (Cspk p.51-68) Chapter 4 review/48-51,79-81,88-98,100,101; 4.6/27
15-3	4-Dec		Test 4 – Related Rates/Probability	

Revised Aug 20, 2015