Math 1131 Outline - Fall 2012

(*Calculus, Early Transcendentals*, by Briggs and Cochran 1st Edition)

Week	Date	Section	Topic	Learning Activity	Page
1	8/27	1.1	Review of Functions	Video, flash cards, worksheet	1
		1.2	Representing Functions	Video, flash cards	10
		1.3	Inverse, Exponential, and Logarithm Functions	Video, flash cards	22
		1.4	Trigonometric Functions and Their Inverses	Video, flash cards	34
2	9/3	No Class	Labor Day		
		2.1	The Idea of Limits	Video, flash cards, Quiz	50
		2.2	Definitions of Limits	Video, flash cards	56
3	9/10	2.3	Techniques for Computing Limits	Video, flash cards, Worksheet	65
		2.4	Infinite Limits	Video, flash cards	76
		2.5	Limits at Infinity	Video, flash cards	84
4	9/17	2.6	Continuity	Video, flash cards, Quiz	94
		2.7	Precise Definitions of Limits	Video, flash cards	107
		3.1	Introducing the Derivative		121
5	9/24	3.2	Rules of Differentiation	Video, flash cards, Worksheet	135
		3.3	The Product and Quotient Rules	Video, flash cards	145
		3.4	Derivatives of Trigonometric Functions	Video, flash cards	155
6	10/1	3.5	Derivatives as Rates of Change	Video, flash cards, Quiz	163
			Review for Exam I	Reivew sheet	
	10/5		Exam I, 3-5 PM		
7	10/8	3.6	The Chain Rule	Video, flash cards	175
		3.7	Implicit Differentiation	Video, flash cards	183
		3.8	Derivatives of Logarithmic and Exponential Functions	Video, flash cards	192
8	10/15	3.9	Derivatives of Inverse Trigonometric Functions	Video, flash cards, Worksheet	202

		3.10	Related Rates	Video, flash cards	211
		4.1	Maxima and Minima	Video, flash cards	223
9	10/22	4.2	What Derivatives Tell Us	Video, flash cards, Quiz	232
		4.3	Graphing Functions	Video, flash cards	247
		4.4	Optimization Problems	Video, flash cards	257
10	10/29	4.5	Linear Approximation and Differentials	Video, flash cards, Worksheet	267
		4.6	Mean Value Theorem	Video, flash cards	274
		4.7	L'Hopital's Rule	Video, flash cards	280
11	11/5	4.8	Antiderivatives	Video, flash cards, Quiz	292
			Review for Exam 2	Review Sheet	
	11/9		Exam 2, 3-5 PM		
12	11/12	5.1	Definite IntegralsApproximating Areas under Curves	Video, flash cards	306
		5.2	Definite Integrals	Video, flash cards	320
		5.3	Fundamental Theorem of Calculus	Video, flash cards, Worksheet	334
	11/29	No Class	Thanksgiving		
13	11/26	5.4	Working with Integrals	Video, flash cards, Quiz	349
		5.5	Substitution Rule	Video, flash cards	357
		6.1	Velocity and Net Change		370
14	12/3	6.2	Regions between Curves	Video, flash cards, Quiz	383
			Review		

Week	Date	Section	Topic	Homework-Text	Open Ended (5 tries)	Mult Choice (2 tries)	Homework-Just In Time (Supplemental Pre-Calc)
1	#####	**1.1**	Review of Functions	**1.1** – 4,6,7,11,13,17,19, 7			1.8 – 1(a-c, i, j), 3-5
				21,25,29,31,33,35,45			4.1 – 1(a,d,e), 2(c,d), 5,6
							7.1 – 2
		1.2	Representing Functions	**1.1**- 46,49,53,54,,74 8	46	49,53,54,,74	4.2 – 9. 10, 11, 13, 15, 18
				1.2 – 10,11,13,15, 18, 25, 27, 28	10	11,13,15, 18, 25, 27, 28	11.1 – 1, 3, 9
							12.1 – 1-5
2	6-Sep	No Class	Labor Day				
		1.3	Inverse, Exponential, and Logarithm Functions	**1.2** – 29, 30, 32, 56, 57, 61	32, 61	29,30,56,57	4.7 – 1-7
				1.3 – 11,14,15, 17, 21, 27, 31, 33, 41,58	15, 17, 21, 27, 31, 33, 41,58	11,14	7.3 – 1, 3, 5, 7
							7.4 – 9
							8.1 – 3, 6, 9, 12, 15
3	13-Sep	**1.4**	Trigonometric Functions and Their Inverses	**1.2** – 61, 67	61, 67		5.1 – 1, 3
				1.3 – 22, 32, 42, 45, 47, 67	22, 32, 42, 45, 47, 67		5.2 – 1, 3, 5
				1.4 – 15, 17, 23, 35, 37, 41, 43,	15, 17, 23, 35, 37, 41, 43,		5.3 – 1, 3, 5
				49, 66, 73	49, 66, 73		5.4 – 1, 3, 5
							8.1 – 17, 19, 21
							8.2 – 1, 3, 5
							8.3 – 1 – 3
				1.4 – 19, 20, 31, 39, 42, 44, 53, 58, 66, 76, 81, 83	20, 31, 39, 42, 44, 53, 58, 76, 81, 83	19, 66	5.3 – 7, 9, 11
							5.4 – 9, 11
							5.5 - 1
							7.3 – 9, 11
							9.1 – 1
							9.2 – 1
							9.3 - 1
				1.1 – 12, 15, 26, 28, 39, 65	26, 28	12, 15, 39, 65	1.1 – 11, 13

4	20-Sep	**2.1**	The Idea of Limits	**1.2** – 19		19	1.2 – 21, 22
				1.3 – 69	69		7.3 – 9, 11
				2.1 – 1, 3, 7, 9, 13, 15, 16, 17, 24, 25	7, 9, 13, 15, 16, 17, 24, 25	1, 3	8.4 – 7-10, 16, 18, 20
							12.1 – 6-10
		2.2	Definitions of Limits	**2.2** - 2, 3, 5, 7, 9, 13, 18, 21, 25, 31, 35	7, 9, 13, 18, 21,31, 35	2, 3, 5, 25	4.1 – 1(c, f),
							4.2 – 12, 14, 17
							5.5 – 10
							7.1 – 3
							10.5 – 2. 5
							11.1 – 2. 7
5	27-Sep	**2.3**	Techniques for Computing Limits	**2.2** – 10, 19, 20	10, 19, 20		3.2 – 1-11(odd), 19
				2.3 – 11, 17, 20, 22, 25, 27, 33, 37, 39, 44, 47, 49, 53, 57, 59, 65, 80	11, 17, 20, 22, 25, 27, 37, 39, 44, 47, 49, 53, 57, 59, 65, 80	33	3.3 – 7, 9, 15, 17
							5.5 – 2
							10.5 - 8
6	4-Oct		Review for Exam I	**C1 Review** – 2, 4, 6, 8, 9, 10, 12, 14, 16, 17, 18, 21, 23, 24, 27, 28, 30, 31, 32, 34, 38, 39, 40, 41	**Student practice for exam**		
				2.3 – 12, 19, 24, 30, 32, 34, 45, 46, 61, 76, 81			
	7-Oct		Exam I, 6-8 PM				
7	11-Oct	**2.4**	Infinite Limits	**2.4** – 4, 5, 8, 11, 15, 17, 21, 23, 25, 27, 37, 41, 46	5, 8, 11, 17, 21, 25, 27, 37,	4,15,23,41,46	5.1 – 5
							5.3 – 2-12(even)
							5.4 - 6
				2.4 – 10, 18, 26, 30, 39	10, 18, 26, 30, 39	26	11.1 – 8

		2.5	Limits at Infinity	**2.5** – 3, 9, 11, 14, 21, 24, 25, 27, 29, 31, 33, 39, 41, 43, 66	9, 11, 14, 21, 24, 25, 27, 29, 39, 41, 43, 66	3, 31, 33, 43	
8	18-Oct	**2.6**	Continuity	**2.5** – 17, 27, 44, 45, 53, 57, 61, 67	17, 27, 44, 45, 57, 61, 67	53	1.8 – 5, 6
				2.6 – 1, 2, 5, 9, 15, 20, 21, 33, 35, 37, 41, 45, 46, 51, 61, 65, 69, 74, 80	2, 5, 9, 15, 20, 21, 37, 41, 45, 46, 61, 65, 69, 74, 80	1, 33, 35, 51	6.2 – 5
							7.1 – 7
							7.4 - 7
		2.7	Precise Definitions of Limits	**2.6** – 16, 22, 27, 34, 74	16, 22, 27, 74	34,	3.3 – 23, 27, 30
				2.7 – 1, 5, 7, 9, 11, 13, 17, 21, 29, 34, 41, 51	1, 7, 9, 11, 17, 29, 41, 51	5,13, 21, 34	4.3 – 9, 10
9	25-Oct	**3.1**	Introducing the Derivative				11.1 – 10, 12
				C2 Review – 2, 6, 8-20(even), 24, 25 – 30	**Student practice for exam**		
				3.1 – 3, 5,9, 11, 13, 15, 22, 39, 41, 43, 53	3, 9, 13, 15, 22, 53	5, 11, 39, 41, 43,	
				2.7 – 10, 12, 42	10, 12	42	
		3.2	Rules of Differentiation	**C2 Review** – 30, 31, 33, 35, 37, 38, 43, 45, 46	**Student practice for exam**		1.4 – 11, 13, 15, 16
				3.1 - 25, 27, 35, 46, 49, 59, 61, 67, 71	25, 27, 35, 46, 49, 67, 71	59, 61	1.5 – 31- 35
				3.2 – 7, 9, 10, 13, 15, 17, 19, 21, 25, 27, 29, 31, 33	7, 9, 10, 13, 15, 17, 19, 21, 25, 27, 29, 31, 33		11.1 – 14
10	1-Nov	**3.3**	The Product and Quotient Rules	**C2 Review** – 51, 52, 54, 55, 56	**Student practice for exam**		11.1 - 15
				3.2 – 39, 42, 45, 50, 51, 55, 56	39, 42, 45, 50, 51, 55, 56		

				3.3 – 1, 6, 9, 11, 13, 17, 21, 23, 27, 29, 31, 32, 37, 39, 43	9, 11, 13, 17, 21, 31, 32, 37, 39, 43	1, 6, 23, 27, 29	
				3.2 - 25, 41, 52, 53	25, 41, 52, 53		5.2 – 2, 4
				3.3 -20, 49, 50, 54, 57, 68, 81	20, 49, 50, 54, 68	57, 81	5.4 – 14
		3.4	Derivatives of Trigonometric Functions	**3.4** – 5, 6, 7, 11, 13, 15, 17, 22, 27, 28, 33, 40, 44, 50	5, 6, 7, 11, 13, 15, 17, 22, 27, 28,40, 44, 50	33	7.1 – 8
							15.1 – 1- 4
11	8-Nov	**3.5**	Derivatives as Rates of Change	**3.3** – 51, 67	51, 67		6.2 – 8
				3.4 – 39, 52, 57, 69	39, 52, 69	57,	
				3.5 – 7, 9, 11, 17, 20, 21, 28, 33, 38	11, 17, 20, 21, 28, 33, 38	7, 9,	
		3.6	The Chain Rule	**3.5** – 23, 41, 43, 47	23, 41, 43, 47		13.1 – 2, 4, 6
				3.6 – 5, 6, 9, 11, 20, 25, 31,37, 39, 45, 48, 55, 57, 61	9, 11, 20, 25, 31,37, 39, 48, 55, 57, 61	5, 6, 45	
12	#####		Review for Exam 2	**C3 Review** – 2 – 5, 8, 12, 14, 15 – 35(odd), 39, 44, 49-52, 56, 63	**Student practice for exam**		
	#####		Exam 2, 6-8 PM				
	#####	**No Class**	Thanksgiving Break				
13	#####	**3.7**	Implicit Differentiation	**3.7** – 5, 8, 11, 12, 21, 28, 33, 35, 37, 39, 49, 66, 71	5, 11, 12, 21, 28, 33, 35, 37, 39, 49, 66, 71	8	13.1 – 1, 3, 5, 7
		3.8	Derivatives of Logarithmic and Exponential Functions	**3.7** – 9, 13	9, 13		6.2 – 6
				3.8 - 7, 9, 13, 15, 16, 17, 21, 25, 35	7, 9, 13, 15, 16, 17, 21, 25, 35		8.2 – 4, 10

							8.4 – 7, 8
14	1-Dec	**3.9**	Derivatives of Inverse Trigonometric Functions				5.5 – 3
				3.9 - 7, 9, 17, 19, 21, 29, 31, 37, 39, 41, 44, 51	7, 9, 17, 19, 29, 31, 37, 39, 41, 44, 51	21	7.4 – 1, 3, 5
							8.4 – 12, 14
							9.1 – 2
							9.2 – 2
							9.3 – 2
			Review	**3.9** - 12, 18, 20, 24, 57			