

# Math 121 - Fall 2023

## Syllabus

Date	Section	Topic	#	Homework
August				
28	1.1-1.2	Real Numbers and Graphs	1	11/5, 7, 9,15,23; 20/9,11,15,17
29	1.3-1.4	Functions	2	25/5,9,19,17,23; 33/3,19,23,25
30	1.5-1.6	Inverse and Exponential Functions	3	43/1,3,11,23,29; 52/3,5,17,19,33
September				
1	2.1-2.2	Limits	4	65/3,5,13; 73/1,5,9,17,25
4		<b>Labor Day</b>	<b>No Class</b>	
5	2.3	Limits again	5	78/3,5,9,13,17,19
6	2.4	Continuity	6	87/7,11,35,51,57,67
8	2.5	Computing Limits	7	94/5,7,11,21,29,31
11	2.6	Trig Limits	8	99/7,17,19,23,29,35
12	2.7	Limits at Infinity	9	106/7,9,13,17,21,23,27
13	2.8	I.V.T.	10	110/3,5,7,9,13,15
15	2.9	Formal Definition of Limit	11	117/3,5,7,13,21
18		Review		
19		<b>Test 1</b>		
20	3.1	Definition of Derivative	12	129/3,5,27,33,35,39
22	3.2	Derivative	13	142/7,9,11,15,19,21,23
25	3.2	Derivative	14	142/27,31,37,39,43,45
26	3.3	Product and Quotient Rules	15	151/3,5,9,13,17,25,39
27	3.4	Rates of Change	16	159/3,7,11,21,23,31
29	3.5	Higher Derivatives	17	167/5,9,15,19,21,29
October				
2	3.6	Trig Derivatives	18	172/5,13,19,21,31,39
3	3.7	The Chain Rule	19	178/1,5,9,11,23,29,35,41
4	3.8	Implicit Differentiation	20	187/1,3,5,7,9,13,15,21
6	3.8	Derivatives of InverseTrig	21	187/29,33,35,37,41
9	3.9	Derivatives of Exponentials	22	196/3,5,7,9,13,17,21,27,41
10	3.9	Derivatives of Hyperbolic Trig	23	197/45,51,57,61,63
11	3.10	Related Rates	24	202/1,3,5,9,15,17,19
13	3.10	Related Rates	25	203/21,27,29,31
16		Review		
17		<b>Test 2</b>		
18	4.1	Linear Approximations	26	218/1,9,11,13,17,45,49
20	4.2	Extreme Values	27	227/29,31,33,37,39,45

23		<b>Fall Break</b>	<b>No Class</b>	
24		<b>Fall Break</b>	<b>No Class</b>	
25	4.3	M.V.T.	28	237/23,25,29,35,37
27	4.4	Graphing	29	243/3,5,13,25,27,39,41,43
30	4.5	l'Hospital's Rule	30	252/1,3,11,15,17,19,33,41
31	4.6	Graphing	31	261/15,17,21,27,29
November				
1	4.7	Applied Max/Min	32	269/3,7,11,19,29,39
3	4.8	Newton's method	33	279/1,3,5,17
6	5.1	Area	34	294/1,5,15,21,29,43,47
7	5.2	The Definite Integral	35	307/5,7,13,15, 27, 33, 37
8	5.3	The Indefinite Integral	36	316/11,17,23,29,33
10	5.4	FTC Part I	37	323/5,7,11,19,25,33,37
13	5.5	FTC Part II	38	330/7,17,29,31,33
14	5.6	Net Change	39	337/1,3,5,7,9,11
15	5.7	Substitution	40	344/7,11,13,27,39,57,65
17	5.8	Transcendental Functions	41	350/13,17,21,27,33,45,55
20		Review		
21		<b>Test 3</b>		
22		Return Test		
24-25		<b>Thanksgiving Break</b>	<b>No Class</b>	
27	6.1	Area	42	362/3,7,13,19,21,23,27,31,35
28	6.2	Volume	43	374/9,11,13,21
29	6.2	Average value	44	375/39,41,43,45
December				
1	6.3	Volume of Rev.	45	382/5,9,13,15,17
4	6.4	Cylindrical Shells	46	390/1,7,15,17,19,21
5	6.5	Work	47	396/1,3,5,7,9
6	6.5	Work	48	396/17,19,21,23,25
8		Review and class party		
11		Reading Day/Math Gala		
12		<b>Math Final</b>		