Math 1226 Syllabus -- Spring 2020

				Textbook: Stewart, Calculus: Early Transcendentals, 8th ed., w/WebAssign Access	WebAssign	
Week 1 (1/21)		No Class	**MARTIN LUTHER KING JR. HOLIDAY Monday, January 20**			
	1	5.5	Intro to Course / Review the Substitution Rule	p. 418-419: # 8, 13, 17, 34, 40, 44, 53, 67	# 8, 13, 34, 40, 53, 67	
	2	5.2	The Definite Integral	p. 388-389: # 1, 6, 8, 9, 14M	# 1, 8, 9	
	3	6.1	Areas Between Curves	p. 434-435: #1*, 3*, 5, 11*, 20*, 21*, 25* (set up 25 with respect to both dx and dy), 27*, 33	# 1, 3, 11, 21, 27	
Week 2 (1/27)	4	6.2	Volumes (by Cross-Sections)	p. 448: # 55*, 56*, 57*, 58*	# 55, 57	**Basic Skills Review Deadline: 11:59pm on Thurs., Jan. 30**
	5	6.2	Volumes (by Disk/Washer Method)	p. 446-447: # 1, 5*, 6, 8*, 9*, 11*, 15*, 16*, 20*, 21*, 25*, 29*, 32*	# 1, 5, 7, 9, 15, 25, 29	
	6	6.3	Volumes by Cylindrical Shells	p. 453-454: # 2, 4*, 8, 14*, 16*, 20*, 21M, 25M, 37*, 38*	# 8, 19, 21, 25, 37, 38	
	7	6.4	Work (Springs/Ropes)	p. 458-459: # 1, 5,7, 9, 10, 12, 13*, 15*, 16*	# 5, 7, 9, 10, 15	
Week 3 (2/3)	8	6.4	Work (Pumping Liquids)	p. 459: # 21*, 23*, 24*, 25*, 26*	# 23, 25	
	9	6.5	Average Value of a Function	p. 463: # 1, 5, 6, 9, 15, 16	# 1, 6, 9, 16	
	10	7.1	Integration by Parts	p. 476: # 5, 10, 11, 12, 19, 23, 28, 30	# 5, 10, 19, 30	
	11	7.1	Integration by Parts	p. 476-477: # 18, 33, 37, 40, 41, 62	# 18, 39, 41	
Week 4 (2/10)	12	7.2	Trigonometric Integrals (Sine/Cosine)	p. 484-485: # 2, 4, 6, 9, 13, 15, 16, 46, 56	# 2, 11, 56	
	13	7.2	Trigonometric Integrals (Secant/Tangent)	p. 484-485: # 21, 22, 24, 29, 47	# 21, 24, 47	
	14	7.3	Trigonometric Substitution	p. 491: # 3, 6, 8, 12, 20, 21	# 4,12, 21	
	15	7.3	Trigonometric Substitution	p. 491: # 23, 24, 26, 27, 29, 30	# 22, 27, 30	
Week 5 (2/17)	16	Review				
	17	Test 1				
	18	7.4	Integration of Rational Functions by Partial Fractions	p. 501: # 1, 4a, 7, 12, 14, 19, 39, 49, 51	# 12, 14, 19, 49	
	19	7.4	Integration of Rational Functions by Partial Fractions	p. 501: # 4b, 5, 25, 32, 35, 50	# 24, 32	
Week 6 (2/24)	20	7.5	Strategy for Integration	p. 507-508: # 2, 4, 5, 8, 9, 13, 16, 21, 22, 39, 45, 48	# 4, 5, 16, 21, 22, 39, 45	
	21	7.7	Approximate Integration (Trapezoidal/Simpson's Rule)	p. 524-525: # 1, 2, 5, 7, 30	# 1, 7, 30	
	22	6.1	Income Inequality and the Gini Index	Gini Worksheet, p. 437, #1, 3	Gini BQ, 1, 2	
	23	8.3	Applications to Physics and Engineering (Centers of Mass)	p. 566-567: # 22, 23, 25, 27 set up: 29 (with respect to both dx and dy), 31, 32	# 22, 23, 24	
(Drop date)	24	4.4	Indeterminate Forms and L'Hospital's Rule	p. 311-312: # 1, 2, 5, 7, 13, 14, 19, 43, 49, 50, 53	# 1, 2, 13, 19, 43	
Week 7 (3/2)	25	4.4	Indeterminate Forms and L'Hospital's Rule (Exponential)	p. 312: # 57, 58, 61, 62, 65	# 58, 62, 65	
	26	7.8	Improper Integrals	p. 534-535: # 5, 6, 13, 14, 19, 23, 43	# 13, 14, 23	
	27	7.8	Improper Integrals	p. 534-535: # 2, 27, 28, 31, 34, 37, 48M, 55, 57	# 28, 31, 39	
Spring Break (March 7-15)						
Week 8 (3/16)	28	8.5	Probability	p. 579-580: # 1, 2, 4ab, 5, 7, 8	# 1, 2, 5, 8	
	29	Review				
	30	Test 2				

	31	11.1	Intro to Convergence and Divergence Sequences	Supplementary Problems I and p. 704: # 1, 5, 13, 15, 23, 25, 27, 29, 31, 33, 35, 37, 39	# 1, 5, 15, 23, 33, 35, 37
Week 9 (3/23)	32	11.1/11.2	Sequences Series	p. 704-705: # 38, 41, 42, 43, 44, 45, 47, 52, 60[M], 72, 73, p. 715-716: # 1, 3, 5, 15, 17, 18, 21, 23, 25	# 43, 73, 75 # 1, 3, 9, 15, 17, 23, 25
	33	11.2	Series	p. 716: # 27, 31, 32, 34, 37, 40, 42, 57, 59	# 40, 42, 57, 59
	34	11.3	The Integral Test	p. 725 # 2, 4, 5, 6, 7	# 4, 7
	35	11.3	The Integral Test	p. 726 # 11, 13, 15, 21, 22, 23, 27	# 11, 13, 15, 27
Week 10 (3/30)	36	11.4	The Comparison Tests	p. 731 # 1, 2, 3, 5, 10, 13	# 1, 2, 5
	37	11.4	The Comparison Tests	p. 731 # 7, 9, 15, 17, 21, 22, 27, 32	# 7, 15, 17, 22, 27, 32
	38	11.5	Alternating Series	p. 736: # 1, 2, 3, 4, 6, 7, 8, 11, 13, 23, 25, 27, 32	# 1, 2, 3, 4, 6, 10, 13, 23, 32
	39	11.6	Absolute Convergence and the Ratio and Root Tests	p. 742-743: # 1, 3, 5, 7, 9, 13, 14, 17, 18, 31, 37	# 1, 3, 5, 7, 13, 14, 37
Week 11 (4/6)	40	11.6	Absolute Convergence and the Ratio and Root Tests	p. 743: # 19, 20, 23, 25, 28, 29, 39, 43, 45	# 23, 25, 29, 39, 43, 45
	41	11.7	Strategy for Testing Series	p. 746: # 1, 2, 3, 5, 7, 8, 9, 11, 13, 14, 16, 17, 21, 22, 25, 31, 32, 33, 34	# 1,4, 6, 7, 8, 9, 11, 13, 14, 17
	42	11.7	Strategy for Testing Series		
	43	11.8	Power Series	p. 751: # 5, 7, 11, 13, 15, 20, 23, 25, 30	# 5, 7, 11, 13, 15, 23, 24
Week 12 (4/13)	44	11.9	Representations of Functions as Power Series	p. 757: # 3, 7, 15, 25, 30, 32, 33, 40	# 3, 8, 15, 25, 40
	45	11.10	Taylor and Maclaurin Series	p. 771: # 4, 14, 19, 22, 35, 39, 49	# 4, 14, 19, 35, 39
	46	11.10	Taylor and Maclaurin Series	p. 771-772: # 54, 55, 59, 60, 62, 74, 76	# 55, 56, 62, 74, 76
	47	11.11/supp	Applications of Taylor Polynomials & tpolytool	p. 780-781: # 13[M], 18[M], 19[M], 25, 26, 28[M] (use ASET)	# 25, 26
Week 13 (4/20)	48	11.11/supp	Applications of Taylor Polynomials & tpolytool	Supplementary Problems II	
	49	Review			
	50	Test 3			
	51	10.1	Curves Defined by Parametric Equations	p. 645-648: # 6, 7, 8, 11, 12, 14, 15, 20, 24, 31b, 33, 34a, 45	# 14, 15, 24
Week 14 (4/27)	52	10.2	Calculus with Parametric Curves	p. 655-656: # 1, 5, 15, 17, 30, 41, 45, 51	# 1, 5, 13, 17, 30, 41, 51
	53	10.3	Polar Coordinates	p. 666-667: # 3, 5, 11, 12, 15, 16, 17, 21, 25	# 3, 5, 11, 12
	54	10.3	Polar Coordinates	p. 667-668: # 29, 32, 33, 35, 40, 54, 55, 61, 65	# 32, 33, 37
	55	Review			
Week 15 (5/4)	56	Review			
	57	Review			
	(58	Review)			
FINAL EXAM (Tuesday, May 12th, at 1:05 – 3:05 PM)					

M = MATLAB

*** = Set up only**