

Math 1226 Syllabus -- Spring 2018

			Textbook: Stewart, Calculus: Early Transcendentals, 8 th ed., w/WebAssign Access	WebAssign
		No Class	MARTIN LUTHER KING JR. HOLIDAY	
		Monday, January 15		
Week 1 (1/16)	1	5.5	Intro to Course / Review the Substitution Rule	p. 418-419: # 8, 13, 17, 34, 40, 44, 53, 67
	2	5.2	The Definite Integral	p. 388-389: # 1, 6, 8, 9, 14 ^M
	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
Week 2 (1/22)	4	6.2	Volumes (by Cross-Sections)	p. 448: # 55*, 56*, 57*, 58*
	5	6.2	Volumes (by Disk/Washer Method)	p. 446-447: # 1, 5*, 6, 8*, 9*, 11*, 15*, 16*, 20*, 21*, 25*, 29*, 32*
	6	6.3	Volumes by Cylindrical Shells	p. 453-454: # 2, 4*, 8, 14*, 16*, 20*, 21 ^M , 25 ^M , 37*, 38*
	7	6.4	Work (Springs/Ropes)	p. 458-459: # 1, 5, 7, 9, 10, 12, 13*, 15*, 16*
Week 3 (1/29)	8	6.4	Work (Pumping Liquids)	p. 459: # 21*, 23*, 24*, 25*, 26*
	9	6.5	Average Value of a Function	p. 463: # 1, 5, 6, 9, 15, 16
	10	7.1	Integration by Parts	p. 476: # 5, 10, 11, 12, 19, 23, 28, 30
Week 4 (2/5)	11	7.1	Integration by Parts	p. 476-477: # 18, 33, 37, 40, 41, 62
	12	7.2	Trigonometric Integrals (Sine/Cosine)	p. 484-485: # 2, 4, 6, 9, 13, 15, 16, 46, 56
	13	7.2	Trigonometric Integrals (Secant/Tangent)	p. 484-485: # 21, 22, 24, 29, 47
	14	7.3	Trigonometric Substitution	p. 491: # 3, 6, 8, 12, 20, 21
Week 5 (2/12)	15	7.3	Trigonometric Substitution	p. 491: # 23, 24, 26, 27, 29, 30
	16		Review	
	17		Test 1	
Week 6 (2/19)	18	7.4	Integration of Rational Functions by Partial Fractions	p. 501: # 1, 4a, 7, 12, 14, 19, 39, 49, 51
	19	7.4	Integration of Rational Functions by Partial Fractions	p. 501: # 4b, 5, 25, 32, 35, 50
Week 7 (2/26)	20	7.5	Strategy for Integration	p. 507-508: # 2, 4, 5, 8, 9, 13, 16, 21, 22, 39, 45, 48
	21	7.7	Approximate Integration (Trapezoidal/Simpson's Rule)	p. 524-525: # 1, 2, 5, 7, 30
	22	4.4	Indeterminate Forms and L'Hospital's Rule	p. 311-312: # 1, 2, 5, 7, 13, 14, 19, 43, 49, 50, 53
(Drop date)	23	4.4	Indeterminate Forms and L'Hospital's Rule (Exponential)	p. 312: # 57, 58, 61, 62, 65
Week 8 (3/12)	24	7.8	Improper Integrals	p. 534-535: # 5, 6, 13, 14, 19, 23, 43
	25	7.8	Improper Integrals	p. 534-535: # 2, 27, 28, 31, 34, 37, 48 ^M , 55, 57
	26	8.3	Applications to Physics and Engineering (Centers of Mass)	p. 566-567: # 22, 23, 25, 27, 29* (set up 29 with respect to both dx and dy)
Week 9 (3/19)	27	8.3	Applications to Physics and Engineering (Centers of Mass)	p. 567: # 31*, 33*, 34, 36, 41
	Spring Break (March 3 - 11)			
Week 10 (3/26)	28	8.5	Probability	p. 579-580: # 1, 2, 4ab, 5, 7, 8
	29	8.5	Probability	p. 580: 574 # 10, 11, 14 ^M , 17 ^M
	30		Review	
Week 11 (4/2)	31		Test 2	
	32	11.1	Intro to Convergence and Divergence	Supplementary Problems I and
	33	11.1/11.2	Sequences	p. 704: # 1, 5, 13, 15, 23, 25, 27, 29, 31, 33, 35, 37, 39
	34	11.2	Series	p. 704-705: # 38, 41, 42, 43, 44, 45, 47, 52, 60 ^M , 72, 73, 715-716: # 1, 3, 5, 15, 17, 18, 21, 23, 25
Week 12 (4/9)	35	11.3	The Integral Test	p. 716: # 27, 31, 32, 34, 37, 40, 42, 57, 59
	36	11.3	The Integral Test	p. 725 # 2, 4, 5, 6, 7
	37	11.4	The Comparison Tests	p. 726 # 11, 13, 15, 21, 22, 23, 27
Week 13 (4/16)	38	11.4	The Comparison Tests	p. 731 # 1, 2, 3, 5, 10, 13
	39	11.5	Alternating Series	p. 731 # 7, 9, 15, 17, 21, 22, 27, 32
	40	11.6	Absolute Convergence and the Ratio and Root Tests	p. 736: # 1, 2, 3, 4, 6, 7, 8, 11, 13, 23, 25, 27, 32
	41	11.6	Absolute Convergence and the Ratio and Root Tests	p. 742-743: # 1, 3, 5, 7, 9, 13, 14, 17, 18, 31, 37
Week 14 (4/23)	42	11.7	Strategy for Testing Series	p. 743: # 19, 20, 23, 25, 28, 29, 39, 43, 45
	43	11.8	Power Series	p. 746: # 1, 2, 3, 5, 7, 8, 9, 11, 13, 14, 16, 17, 21, 22, 25, 31, 32, 33, 34
	44	11.9	Representations of Functions as Power Series	p. 751: # 5, 7, 11, 13, 15, 20, 23, 25, 30
Week 15 (4/30)	45	11.10	Taylor and Maclaurin Series	p. 757: # 3, 7, 15, 25, 30, 32, 33, 40
	46	11.10	Taylor and Maclaurin Series	p. 771: # 4, 14, 19, 22, 35, 39, 49
Week 16 (5/7)	47	11.11/supp	Applications of Taylor Polynomials & tpolytool	p. 771-772: # 54, 55, 59, 60, 62, 74, 76
	48	11.11/supp	Applications of Taylor Polynomials & tpolytool	p. 780-781: # 13 ^M , 18 ^M , 19 ^M , 25, 26, 28 ^M (use ASET)
	49		Review	Supplementary Problems II
Week 17 (5/14)	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
	52	10.2	Calculus with Parametric Curves	p. 655-656: # 1, 5, 15, 17, 30, 41, 45, 51
Week 18 (5/21)	53	10.3	Polar Coordinates	p. 666-667: # 3, 5, 11, 12, 15, 16, 17, 21, 25
	54	10.3	Polar Coordinates	p. 667-668: # 29, 32, 33, 35, 40, 54, 55, 61, 65
Week 19 (5/28)	55		Review	# 32, 33, 37
	56		Review	
Week 20 (6/4)	57		Review	
	58		Review	
FINAL EXAM (Wednesday, May 9, at 7:45 - 9:45 AM)				

Basic Skills Review
Deadline: midnight on Thurs., Jan. 25

M = MATLAB
* = Set up only