MATH 1226 Syllabus Spring 2025

Week			Section	Topic	Textbook Calculus: Early Transcendentals (w/WebAssign) 9th Edition, Stewart	WebAssign Quiz Due
Week 1	Jan 20 - 24	1	**Martin Luther King Holiday**			
		2	5.5	Intro to Course / Substitution Rule (Review)	p. 425-426: # 8, 11, 21, 40, 46, 50, 59, 73	
		3	5.2	The Definite Integral (Review)	p. 394-395: # 1, 6, 8, 11, 16	5.5
		4	6.1	Areas Between Curves	p. 442-443: # 1, 3, 10, 11, 17, 27, 31 (setup only with respect to both dx and dy), 35, 41	5.2
						Complete Getting Started with WebAssign and Basic Skills Review by Mon, 1/27
Week 2	Jan 27 - 31	1	6.2a	Volumes (Known Cross-Sections)	p. 458: # 67-68 (setup only)	6.1
		2	6.2b	Volumes (Disk/Washer)	p. 456: # 3, 15, 16, 18, 21, 25, 26, 27, 30, 31, 35, 39, 42	6.2a
		3	6.3	Volumes by Cylindrical Shells	p. 464-465: # 2, 7, 10, 20, 26, 30, 31, 35, 53, 54	6.2b
		4	6.4a	Work (Springs/Ropes)	p. 470-471: # 1, 5, 7, 9, 10, 12, 13, 15, 16	6.3
Week 3	Feb 3 - 7	1	6.4b	Work (Pumping liquids)	p. 471-472: # 21, 23, 24, 25, 26	6.4a
		2	6.5	Average Value of a Function	p. 475: # 1, 6, 7, 10, 15, 16	6.4b
		3	7.1a	Integration by Parts	p. 490-491: # 5, 14, 15, 16, 25, 28, 34, 36	6.5
		4	7.1b	Integration by Parts	p. 490-491: # 24, 39, 43, 46, 47, 68	7.1a
Week 4	Feb 10 - 14	1	7.2	Trigonometric Integrals	p. 498-499: # 2, 4, 9, 13, 17, 18, 21, 22, 24, 29, 33, 46, 50, 64	7.1b
		2	7.3a	Trigonometric Substitution	p. 505: # 7, 12, 14, 18, 24, 27	7.2
		3	7.3b	Trigonometric Substitution	p. 505: # 29, 30, 32, 33, 35, 36	7.3a
		4	**Review**			
Week 5	Feb 17 - 21	1	**TEST 1**	**Includes material through Section 7.2**		
		2	7.4a	Integration of Rational Functions by Partial Fractions	p. 515: # 1, 3a, 9, 12, 14, 19, 41, 55	7.3b
		3	7.4b	Integration of Rational Functions by Partial Fractions	p. 515: # 3b, 6, 27, 32, 37, 54	7.4a
		4	7.5	Strategy for Integration	p. 522: # 10, 15, 16, 17, 21, 23, 24, 29, 30, 47, 56, 71	7.4b
						Complete Pathways 1 Assessment by Sat, 2/22
Week 6	Feb 24 - 28	1	7.7	Approximate Integration	p. 539: # 1, 2, 6, 7	7.5
		2	6.1	Income Inequality and the Gini Index	p. 446 Applied Project: # 1, 3	7.7
		3	8.3	Applications to Physics and Engineering (Centers of Mass)	p. 585: # 22, 23, 25, 27, Setup: 29 (with respect to both dx and dy), 31, 32	6.1
		4	4.4a	Indeterminate Forms and L'Hospital's Rule	p. 316-317: # 1, 2, 5, 7, 13, 14, 21, 43, 50, 53	8.3
Week 7	Mar 3 - 7	1	4.4b	Indeterminate Forms and L'Hospital's Rule	p. 317: # 57, 58, 61, 64, 65	4.4a
		2	7.8a	Improper Integrals	p. 550: # 11, 12, 19, 22, 27, 31, 51	4.4b
		3	7.8b	Improper Integrals	p. 549-551: # 2, 35, 36, 39, 42, 45, 56, 65, 69	7.8a
		4	8.5	Probability	p. 598: # 1, 2, 4a,b, 5, 7, 8	7.8b
					Spring Break (Mar 8 - 16)	
Week 8	Mar 17 - 21	1	11.1a	Intro to Convergence and Divergence Sequences	p. 735-736: # 1, 7, 17, 19, 29, 31, 33, 35, 37, 39, 41, 43, 45	8.5
		2	11.1b11.2a	Sequences Series	p. 736-737: # 44, 47, 48, 49, 50, 51, 53, 58, 66, 78, 79 p. 747-748: # 1, 3, 9, 15, 23, 24, 27, 29, 31	11.1a
		3	**Review**			
		4	**TEST 2**	**Includes material through Section 8.5**		
Week 9	Mar 24 - 28	1	11.2b	Series	p. 748-749: # 33, 39, 40, 42, 45, 48, 50, 59, 61	11.1b/11.2a
		2	11.3	The Integral Test	p. 758-759: # 2, 4, 5, 6, 7, 13, 15, 17, 23, 24, 25, 29	11.2b
		3	11.4a	The Comparison Tests	p. 764: # 1, 2, 7, 9, 14, 17	11.3
		4	11.4b	The Comparison Tests	p. 764-765: # 11, 13, 19, 21, 25, 26, 33, 40	11.4a
						Complete Pathways 2 Assessment by Sat, 3/29
Week 10	Mar 31 - Apr 4	1	11.5a	Alternating Series and Absolute Convergence	p. 772-773: # 1, 2, 3, 4, 6, 7, 8, 11, 13, 37, 39, 41, 46	11.4b
		2	11.5b	Alternating Series and Absolute Convergence	p. 773: # 22, 23, 24, 25, 28, 29	11.5a
		3	11.6a	Ratio and Root Tests	p. 778: # 1, 3, 5, 9, 10, 13, 14, 27, 33	11.5b
		4	11.6b	Ratio and Root Tests	p. 778-779: # 15, 16, 19, 21, 24, 25, 35, 39, 41	11.6a
Week 11	Apr 7 - 11	1	11.7	Strategy for Testing Series	p. 781: # 9, 10, 11, 13, 15, 16, 17, 19, 21, 22, 24, 25, 29, 30, 35, 41-44	11.6b
		2	11.8	Power Series	p. 786: # 11, 13, 17, 19, 21, 26, 31, 33, 38	11.7
		3	11.9a	Representations of Functions as Power Series	p. 793-794: # 3, 4, 9, 10 17, 21	11.8
		4	11.9b	Representations of Functions as Power Series	p. 793-794: # 27, 32, 34, 35, 46	11.9a
Week 12	Apr 14 - 18	1	11.10a	Taylor and Maclaurin Series	p. 808-809: # 4, 14, 21, 24, 39, 43, 55	11.9b
		2	11.10b	Taylor and Maclaurin Series	p. 809: # 60, 61, 65, 66, 68, 84, 86	11.10a
		3	11.11a	Applications of Taylor Polynomials	p. 818: # 3, 5, 8, 9, 11	11.10b
		4	11.11b	Applications of Taylor Polynomials	p. 818: # 13, 18, 19, 25, 26, 28	
Week 13	Apr 21 - 25	1	**Review**			11.11
		2	**TEST 3**	**Includes material through Section 11.11**		
		3	10.1	Curves Defined by Parametric Equations	p. 668-671: # 8, 9, 10, 13, 14, 17, 19, 26, 30, 37, 41, 42, 56	
		4	10.2	Calculus with Parametric Curves	p. 679-682: # 1, 9, 19, 21, 34, 47, 51, 55	10.1
Week 14	Apr 28 - May 2	1	10.3a	Polar Coordinates	p. 692: # 3, 5, 11, 12, 15, 16, 17, 21, 25	10.2
		2	10.3b	Polar Coordinates	p. 693: # 33, 36, 37, 39, 44, 56, 57	10.3a
		3	**Review**			10.3b
		4	**Review**			
						Complete Pathways 3 Assessment by Sat, 5/3
Week 15	May 5 - 9	1	**Review**			
		2	**Review**			
			Reading Day	**No classes/exams (May 8)**		
			FINAL EXAM	**Cumulative Final Exam (May 12)**		