

Ma 311 Linear Algebra ♦ Course Schedule and Assignments ♦ Fall 2025

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Date	Discussion	Assessment	Suggested Exercises
	<ul style="list-style-type: none">• The 8th edition of Larson, <i>Elementary Linear Algebra</i>, is required.• Exercises in parenthesis () are for the purpose of reviewing what you should already know from prior math experience. Do only what you need to refresh your knowledge.• Exercises not in parenthesis represent potentially new material. Pay attention to these.• Exercises in bold italic introduce ideas or either build or reinforce theory. Neglect these at your own peril.		
Unit 1 Linear Systems, Matrices, and Determinants			
Wk 1 ---- 8/27 8/29	§ 1.1-1.3	no class Monday	1.1 #(1-66), 69, 70, 71, 72, 77, 78, 79, 81, 83, 85, 91, 92 , 93 1.2 #3, 7, 11, 13, 15, 17, 19-21, 22-24, 33, 35, 37, 39, 41, 43, 50, 52, 59, 60, 63, 68 1.3 curve fitting: #3, 7, 11, 13, 14, 15, 37 network analysis: #21, 23, 25 partial fraction decomposition: #31, 33 polynomial zeros #39, 40
Wk 2 9/1 9/3 9/5	§ 2.1-2.4 (2.5-2.6 TBD) Labor Day		2.1 #7, 11, 15, 17, 21, 23, 29, 31, 33, 35, 41, 43, 47, 49, 51, 55, 57, 59, 61, 63, 65, 67, 68, 69, 70, 73, 85, 86 2.2 #7, 13, 15, 27, 29, 37, 38, 41, 45, 49, 51, 53, 55, 56, 59, 69, 70, 71, 73 2.3 #5, 7, 13, 15, 25, 27, 41, 45, 47, 53, 55, 57, 59, 69, 71, 72, 74, 75 2.4 #1-11 odd, 15, 17, 19, 21, 23 , 25, 31, 33, 35, 41, 42 , 53 2.5 (TBD) stochastic matrices, Markov chains, steady states 2.6 (TBD) cryptography #1, 3, 5, 7, 9
Wk 3 9/8 9/10 9/12	§ 3.1-3.4		3.1 #1, 5, 9, 15, 17, 19, 27, 29, 31, 39, 41, 43, 44 , 45, 47, 51, 67, 68 3.2 #1-15 odd, 21, 23, 25, 27, 31, 35, 37, 38 , 39, 41, 45 3.3 #3, 5, 13, 17, 21, 23, 25, 33, 37, 39, 41 , 47, 57, 59, 60 , 65, 71, 72, 75, 78 3.4 adjoint #1, 5, 7
Wk 4 9/15			Test 1 Cramer's Rule #9, 13, 17, 21, 27
Unit 2 Vector Spaces			
9/17 9/19 Wk 5 9/22 9/24 9/26 Wk 6 9/29 10/1 10/3 Wk 7 10/6 10/8 10/10 Wk 8 10/13	§ 4.1-4.8 REACH	Project 1 due No classes Wednesday	4.1 #1, 5, 9, 13, 15, 17, 21, 23, 27, 31, 33, 37, 39, 57, 58 4.2 #1-12 all, 13, 17, 21, 25, 29, 31, 33, 35, 37, 41, 49, 50 4.3 #3, 4, 7, 9, 11, 17, 23, 27, 29, 33, 37, 39, 43, 44, 54, 55 4.4 #1, 3, 5, 9, 13, 17, 19, 23, 25, 31, 33, 35, 37, 41, 49, 53, 55, 57, 63, 64, 74, 76 4.5 #1, 3, 5, 7, 13, 15, 17, 21, 25, 27, 31, 33, 35, 37, 38, 39, 43, 45, 49, 53, 59, 61, 63, 65, 79, 80, 81, 83 4.6 #5, 7, 9, 15, 17, 21, 23, 25, 33, 39, 41, 43, 47, 51, 53, 57, 59, 67, 71, 73, 74, 75, 76 4.7 #7, 9, 13, 15, 17, 19, 21, 23, 27, 31, 33, 39, 41, 45, 49, 55, 56, 57 4.8 LDE Wronskian #9, 13, 17, 23, 27, 29, 31, 35, 39
		Test 2	

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Unit 3 Inner-Product Spaces			
Wk 8 10/13 10/15 10/17	§ 5.1-5.5 		