MAT 362 – Course Schedule Spring Semester 2024

(subject to change)

DATE	MATERIAL COVERED IN LECTURE	To do for next class
		Assignments due
M: Jan 22	INTRO TO COURSE REVIEW OF MAT 361	Read §4.14
W: Jan 24	§4.14: Unrestricted-in-Sign Variables	Read §6.5
F: Jan 26	§6.5: Finding the Dual of an LP	Read §6.6
M: Jan 29	§6.6: Interpretation of the Dual	Read §6.7
W: Jan 31	§6.7: The Dual Theorem Problem	
F: Feb 2	§6.7 Continued	Read §6.8
M: Feb 5	§6.8: Shadow Prices	
W: Feb 7	§6.8 Continued	Read §6.9
F: Feb 9	§6.9: Duality and Sensitivity	Read §6.10
M: Feb 12	§6.10: Complementary Slackness	
W: Feb 14	CHAPTER 6 CATCH-UP	Read §7.1
F: Feb 16	§7.1: Transportation Problems	HW I
M: Feb 19	§7.1 Continued	Read §7.2
W: Feb 21	§7.2: Basic Feasible Solutions for Transportation Problems	Read §7.3
F: Feb 23	§7.3: Transportation Simplex Method	

DATE	MATERIAL COVERED IN LECTURE	To do for next class
		Assignments due
M: Feb 26	§7.3: Continued	Read §7.4
W: Feb 28	§7.4: Sensitivity in Transportation Problems	Read §7.5
F: Mar 1	§7.5: Assignment Problems	HW II
M: Mar 4	CHAPTER 7 CATCH-UP	
W: Mar 6	§8.1: Basic Definitions	
F: Mar 8	EXAM I Sections 4.14, 6.5-6.10, 7.1-7.5	Project I
M: Mar 11	Spring Break	
	No Class	
W: Mar 13	SPRING BREAK	
	No Class	
F: Mar 15	SPRING BREAK	<i>Read</i> §8.2
	No Class	
M: Mar 18	§8.2: Shortest Path Problems	
W: Mar 20	§8.2: Continued	Read §8.3
F: Mar 22	§8.3: Maximum-Flow Problems	Read §8.5
M: Mar 25	§8.5: Minimum-Cost Network Flow Problems	
W: Mar 27	CHAPTER 8 CATCH-UP	Read §14.1
F: Mar 29	§14.1: Two-Person Zero-Sum and Constant Sum Games	
M: Apr 1	§14.1: Continued	Read §14.2
W: Apr 3	§14.2: Randomized Strategies, Domination, and Graphical Solutions	Read §14.3
F: Apr 5	§14.3: Zero Sum Game LPs	Read §14.4 HW III

- $\S 9.1:$ Integer Programming $\S 9.2:$ Formulating an IP $\S 9.2$ Continued $\S 9.3:$ Branch-and-Bound Method for $\;$ Pure IPs
- $\S 9.4:$ Branch-and-Bound Method for $\,$ Mixed IPs $\S 9.5:$ Knapsack Problems $\S 9.6:$ Traveling Salesperson Problems $\S 9.6:$ Continued

DATE	MATERIAL COVERED IN LECTURE	To do for next class Assignments due
M: Apr 8	§14.4: Two-Person Nonconstant Sum Games	
W: Apr 10	CHAPTER 14 CATCH-UP	Read §9.1
F: Apr 12	§9.1: Integer Programming	Read §9.2
M: Apr 15	§9.2: Formulating an IP	
W: Apr 17	§9.2 Continued	Read §9.3
F: Apr 19	§9.3: Branch-and-Bound Method for Pure IPs	Read §9.4 HW IV
M: Apr 22	§9.4: Branch-and-Bound Method for Mixed IPs	
W: Apr 24	CHAPTER 9 CATCH-UP	
F: Apr 26	EXAM II Sections 8.1–8.3, 8.5, 14.1–14.4, & 9.1–9.3	Read §9.5
M: Apr 29	§9.5: Knapsack Problems	Read §9.6
W: May 1	§9.6: Traveling Salesperson Problems	
F: May 3	§9.6 Continued	Project II, HW V
W: May 8	MAT362 FINAL EXAM: 11:00 AM – 1:00 PM	LY 228