



## CE 4210 Spring 2010 – Schedule of Topics

<b>Date</b>	<b>Topic</b>	<b>Lecture</b>	<b>Reading in Revelle, et.al.</b>	<b>Assignment Due</b>
Jan. 20	Overview of CE 4210 Explaining Systems Analysis Rules for Modeling/Building Models Applications of Linear Programming	1	Chapter 1	
Jan. 25	Models in Civil and Environmental Engineering/Linear Programming	2	2.A, 2.B, 2.C	
Jan. 27	A Graphical Solution Procedure	3	3.A, 3.B	HW 1
Feb. 1	Properties of the Feasible Region	4	4.A	
Feb. 3	Sensitivity Analysis	5	4.D	HW 2
Feb. 8	The Simplex Algorithm	6	4.B, 4.E	
Feb. 10	Linear Programs with Multiple Objectives	7	5.A, 5.B1	HW 3
Feb. 15	Methods for Generating the Noninferior Set	8	5.B2	
Feb. 17	Review for Exam 1			HW 4
Feb. 22	<b><i>Exam 1 (Chapters 1-5)</i></b>			
Feb. 24	Linear Programming Models of Network Flow: Shortest-Path Problem	9	6.A, 6.B, 6.C	
Mar. 1	Transportation and Assignment Problem	10	6.D/Supplement	
Mar. 3	Transshipment Problem	11	6.E	HW 5
	<b>SPRING RECESS</b>			
Mar. 15	Maximum Flow The Traveling Salesman Problem	12	6.F, 6.G	
Mar. 17	Integer Programming	13	7.A	HW 6
Mar. 22	Integer Programming: Yes-No applications	14	7.B	
Mar. 24	Review for Exam 2			HW 7
Mar. 29	<b><i>Exam 2 (Chapters 6 and 7)</i></b>			
Mar. 31	Scheduling Models: Critical Path Method	15	8.A, 8.B	
Apr. 5	Activity Schedule	16	8.C	
Apr. 7	Bar Chart and Resource Leveling	17	8.D, 8.E	HW 8
Apr. 12	Project Compression and Progress Curve	18	8.F, 8.G, 8.H, 8.I, 8.J	
Apr. 14	Time-cost Tradeoffs	19	Supplement	HW 9
Apr. 19	Decision Theory: Risk	20	9.A, 9.B	
Apr. 21	General Decision Tree Analysis: Experimentation	21	9.C	HW 10
Apr. 26	Decision Making in the Absence of Probabilities	22	9.D	
Apr. 28	Review for Final			Project