

CEE262B: Structures in the Urban Environment
Lecture Syllabus, Spring 2023

	DAY	WEEK	LECTURE TITLE	RELATED READING (*)
1	30-Jan	1	Introduction to Structural Art	T&B Ch. 1
2	1-Feb	1	The Origins of Structural Art: Telford, Brunel, and British Metal Forms	T&B Ch. 2, 3
3	6-Feb	2	John Augustus Roebling & the Brooklyn Bridge	T&B Ch. 5
4	8-Feb	2	The Eads Bridge, Eiffel's Bridges, and Baker's Firth of Forth Bridge	T&B Ch. 8(112-122), Ch.4 (66-71)
5	13-Feb	3	Othmar Ammann and the Bayonne and G. Washington Bridge	T&B Ch. 8 (122-134)
6	15-Feb	3	Wind, Suspension Bridges, and the Verazzano Narrows Bridge	T&B Ch. 8 (135-146)
7	20-Feb	4	The Golden Gate Bridge	
8	22-Feb	4	The Origins of Structural Art in Reinforced Concrete: Robert Maillart	T&B Ch 9
9	27-Feb	5	Origins of Prestressing: Freyssinet, Magnel and Finsterwalder	T&B Ch 11
10	1-Mar	5	New Bridge Forms: Christian Menn	T&B Ch 13 (249-260)
11	6-Mar	6	MIDTERM EXAM REVIEW	
12	8-Mar	6	MIDTERM	
13	20-Mar	7	The Eiffel Tower and the Washington Monument	T&B Ch. 4 (60-64)
14	22-Mar	7	The Gothic Cathedral and the Skyscraper	T&B Ch 7
15	27-Mar	8	Fazlur Khan and Concrete Buildings	T&B Ch. 13 (233-248)
16	29-Mar	8	Fazlur Khan and Steel Buildings	
17	3-Apr	9	Response & Design of Structures for Wind and Earthquakes	
18	5-Apr	9	Structural Elegance at Any Cost? Is it Ethical?	
19	10-Apr	10	The German vs. the Spanish Tradition of Vaulted Roof Forms	T&B Ch. 10 (171-175) T&B Ch. 10 (183-188)
20	12-Apr	10	Felix Candela and Hyperbolic Paraboloid Thin Shell Concrete Vaults	T&B Ch. 10 (189-193)
21	17-Apr	11	Heinz Isler and "Natural" Forms for Concrete Vaults	T&B Ch. 12 (222-232)
22	19-Apr	11	Pier Luigi Nervi and the Italian Tradition of Ribbed Concrete Vaults	T&B Ch. 10 (176-183)
23	24-Apr	12	Modern Structural Design: Panel of Designers	
24	26-Apr	12	Contemporary Design: New Tools, New Forms	

* These readings enhance the lectures --> from *The Tower and the Bridge* book