

4.462 SYLLABUS

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OFFICE HOURS: BY APPOINTMENT

LEC: MW 9:30-11:00 AM, ROOM 3-333

LAB: W 5:00 PM - 7:00 PM, ROOM 3-442

	DATE	SUBJECT
FEBRUARY	Mon 2	Introduction
	Wed 4	Compression structures
	Wed 4	LAB: Cables and arches
	Mon 9	Tension structures
	Wed 11	Designing for axial forces (Equilibrium HW due)
	Wed 11	LAB: Buckling and column project
	Tues 17	Truss design (Monday schedule)
	Wed 18	Forces and forms in beams
	Wed 18	LAB: Truss design/column project
	Mon 23	Beam design (Truss HW due)
MARCH	Wed 25	Forces and forms in frames
	Wed 25	LAB: Column testing (Built column due)
	Mon 2	Frame design
	Wed 4	Structural failures
	Wed 4	LAB: Beams and frames (Column report due)
	Mon 9	Stability and indeterminacy
	Wed 11	Indeterminate beams and frames (Beam HW due)
	Wed 11	LAB: Review
	Mon 16	Prep session
	Wed 18	Midterm

	DATE	SUBJECT
MARCH	Wed 18	LAB: Beam project
	M-F 23-27	SPRING BREAK
	Mon 29	Indeterminate frames
APRIL	Wed 1	Lateral load systems
	Wed 1	LAB: Beam testing (built beam due)
	Mon 6	Final project overview
	Wed 8	Structural computation
	Wed 8	LAB: Final project (beam report due)
	Mon 13	Reinforced concrete design
	Wed 15	Steel and timber design
	Wed 15	LAB: Final project (Project proposal due)
	Mon 20	No class: Patriot's Day
	Wed 22	Sustainable materials
MAY	Wed 22	LAB: Final project (Project preliminary calculations due)
	Mon 27	Sustainable structures
	Wed 29	Designing for the unexpected
	Wed 29	LAB: Final project
	Mon 4	Design for strength and serviceability
	Wed 6	Course overview
	Wed 6	LAB: Final project
	Mon 11	Final review pinup for Fri Lab

Final grades will be calculated as follows:

Participation	5% (reduced for more than 3 unexcused absences)
Homework	20%
Lab reports	20%
Midterm	20%
Final Project	35%

Required Text:

Allen, E. and Zalewski, W., *Form and Forces* (Wiley, 2009)