CE 251, Fall 2017 Weekly Schedule (subject to minor changes as necessary)

Week	Class topic(s)	Text Section(s)	Homework Due	Other…
1 (8/28 - 9/1)	Scope of course Dimensions, units, etc Fluid forces and properties	Ch 1 & 2 Appendix	1.31, 1.33, 1.43, 1.44, 1.51, 2.18 (due Fri)	
2 (9/4 - 9/8)	Fluid statics	3.1 – 3.3	2.5, 2.12, 2.13, 2.17, 2.23 (see eqtn 2.4), 2.26, 2.33 (note "plot", *not* scribble), 2.35, 2.36, 2.39, 2.46 2.48, 2.53, 2.54	Monday is Labor Day (but we work)
3 (9/11 - 9/15)	Pressure forces on submerged surfaces Buoyancy	3.4 – 3.6	3.3, 3.5, 3.13 (part c, To=60F, use eqtn on handout for troposphere, ρ *not* constant), 3.16, 3.18, 3.23, 3.28, 3.35, 3.36, 3.38, 3.42, 3.47	
4 (9/18 - 9/22)	Mean velocity and flow Control volumes and continuity	Ch 5 (not 5.5)	3.61, 3.64, 3.65, 3.67, 3.72, 3.73 (also solve the problem if the water surface is at the midpoint of the dome), 3.75, 3.79, 3.85, 3.86	
5 (9/25 - 9/29)	Pressure variation in flowing fluids: Bernoulli and Euler equations	Ch 4 (not 4.6)	5.7, 5.12, 5.18, 5.48, 5.54, 5.65, 5.68, 5.70,5.75, 5.77	
6 (10/2 - 10/6)	Applications of Bernoulli's equation	Ch 4/5	None – prep for exam instead	NO CLASS FRIDAY

Wed 10/4	**Evening Exam 1 - 7:00-9:00PM** (Chapters 2, 3, 5)

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Week	Class topic(s)	Text Section(s)	Homework Due	Other…
7 (10/9 - 10/13)	- **Fall Break (Mon)** - Review Exam 1 Finish Benoulli	Ch 6 (not 6.6)		Fall Break week
8 (10/16 - 10/20)	Momentum and forces in flowing fluid	Ch 6 (not 6.6)	4.14, 4.26, 4.45, 4.46, 4.55, 4.75, 4.78, 5.86, 5.90, 5.95	
9 (10/23 - 10/27)	The work-energy equation	Ch 7	Draw CVs, vectors, Bernoulli points 6.13, 6.16, 6.23, 6.27&28, 6.37, 6.45, 6.55, 6.60, 6.75, 6.76	Eng Open House on Fri
10 (10/30 - 11/3)	Energy, HGLs, EGLs	Ch 7	7.4, 7.5, 7.17, 7.23, 7.31, 7.33, 7.44, 7.49, 7.58, 7.63, 7.68, 7.71	Halloween
11 (11/6 - 11/10)	Dimensional analysis & Similitude	Ch 8	7.79, 7.82	AWAY AT CONF; NO CLASS WED & FRI

Tues 11/7	**Evening Exam 2 - 7:00-9:00PM (Chapters 4, 6, 7)**

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Week	Class topic(s)	Text Section(s)	Homework Due	Other…
12 (11/13 - 11/17)	Review Exam 2 Boundary layers, surface drag	9.4 – 9.6	8.4, 8.8 (pi-group = dimensionless grouping of variables, 8.10, 8.30, 8.40, 8.41, 8.47, 8.57, 8.63	ASCE Career Fair on Tues
13 (11/20 - 11/24)	Drag and terminal velocity **- Thanksgiving Break (Wed-Fri) -**	11.2 – 11.6	9.4 (we did this back in Ch 2), 9.33, 9.35, 9.43, 9.44, 9.47, 9.48, 9.52	Thanksgiving week
14 (11/27 - 12/1)	Pipe flow: laminar and turbulent flow Moody diagram	10.1 – 10.2	11.11, 11.14, 11.20, 11.48, estimate the drag on your car when going 75 mph at 75F, and estimate its maximum coasting speed down a 5% grade with C_{rr} = 0.01 – list sources of data used	
15 (12/4 - 12/8)	Pipe flow problems	10.3 - 10.7	10.12, 10.31, 10.42, 10.47 (actual ID = 2.47"), 10.59	These are practice problems for Exam 3
	FINAL EXAM (Chapters 8, 9/11, 10) – Wed, Dec 13, 8:00 AM			