

	<u>Date</u>	<u>Topic</u>	<u>Readings</u>	<u>Homework</u>
		<u>Fluid Dynamics</u>		
1	R 9/7	Introduction	Tritton 1	
2	T 9/12	Reynolds number, Poiseuille Flow	Tritton 2	
3	R 9/14	Flow past a cylinder	Tritton 3,8	
4	T 9/19	Rayleigh number and convection	Tritton 4	
5	R 9/21	Flow kinematics	Tritton 6	
6	T 9/26	Boundary layers, aircraft, sports balls	Tritton 10-13	HW1 due
7	R 9/28	Navier-Stokes equations	Tritton 5	Holton 2.1
8	R 9/29	Conservation of mass and constituents	Holton 2.5	Gill 4.1-4.3
9	T 10/03	Review		
10	R 10/5	1st Quiz		
	10/8-10/15	SPARC Meeting in Kyoto		
		<u>GFD Fundamentals</u>		
11	T 10/17	Rotation, <i>Frontal Collapse</i>	Holton 2.2-2.4	
12	R 10/19	Weather charts, thermal wind	Holton 3.4, 6.1	Gill 7.6-7.7
13	T 10/24	Equations of state, 1st Law of Thermo	Gill App. 3	
14	R 10/26	Second law of thermodynamics	Gill 4.4-4.8	Holton 2.6
15	T 10/31	Vorticity, Potential vorticity	Holton 2.7, 9.5.1	HW2 due
16	R 11/2	Turbulence	Holton 4	
17	T 11/7	Momentum fluxes, wave drag	Holton 5.1	
18	R 11/9	Review	Holton 5.3.2-5.3.3	
19	T 11/14	2nd Quiz		
		<u>Waves and Instabilities</u>		
20	R 11/16	Wave fundamentals	Holton 7.1-7.2	Gill 5.1-5.2
21	T 11/21	Shallow and deep water waves	Holton 7.3.2	Gill 5.3-5.6
	11/24-11/27	Thanksgiving Break		HW3 due
22	T 11/28	Internal gravity waves	Holton 7.4-7.5, 9.4	Gill 6.1-6.6, 8.1-8.2
23	R 11/30	Rossby Adjustment	Holton 7.6	Gill 7.1-7.5
24	T 12/5	Rossby waves	Holton 6.1, 7.7	Gill 13.1-13.7
25	R 12/7	Baroclinic instability; Inertial instability	Holton 8.4, 7.5.1	
26	T 12/12	Kelvin-Helmholtz, Barotropic instability		HW4 due
27	R 12/14	Review		
28	M 12/18	3rd Quiz 2:45-4:45		