

Date	Topic	Reading assignment	Homework
18-Jan	Introduction & overview		
20-Jan	Fundamental Concepts	Chapter 1	
25-Jan	Fluid statics	Review 1, 2.1-2.5	
27-Jan	Planetary atmospheres, Forces on bodies in fluids	2.6-2.10	HW#1: 1.5, 1.10, 1.18, 1.21, 1.45
1-Feb	Forces and moments continued	Review 2	
3-Feb	Control volume analysis, mass conservation	3.1-3.3	HW#2: 1.52, 1.61, 2.8, 2.12
8-Feb	Control volume momentum analysis & forces	3.4	
10-Feb	Moving control volumes: rockets, jet engines	3.4	HW#3: 2.42, 2.45, 2.64, 2.139
15-Feb	Angular momentum - turbomachinery	3.5	
17-Feb	Energy analysis for control volumes - Power	3.6-3.7	HW#4: 3.3, 3.16, 3.22, 3.35, 3.44, 3.50, 3.85
22-Feb	Review of control volumes		
24-Feb	Test # 1	Chapters 1-3 (through section 3.4)	
1-Mar	Differential analysis - convective acceleration, continuity equation	4.1-4.2	
3-Mar	Momentum Equation, boundary conditions	4.3, 4.6 (Skip 4.4-4.5)	HW5
8-Mar	Stream function, Vorticity	4.7-4.9	
10-Mar	Potential flow	4.10	HW6
15-Mar	Spring Break		
17-Mar	Spring Break		
22-Mar	Potential flows and inviscid airfoil theory	Supplementary reading	
24-Mar	Dimensional Analysis, the Pi theorem	5.1-5.3	HW7
29-Mar	Flow similarity, dimensionless groups	5.4-5.5	
31-Mar	Internal viscous flows: Laminar and turbulent flows	6.1-6.3	HW8
5-Apr	Duct flow problems, Moody chart	6.4-6.6	
7-Apr	Diffusers, Flow meters	6.11-6.12	HW9
12-Apr	External flows, boundary layers	7.1-7.4	
14-Apr	Lift and drag coefficients	7.6	HW10
19-Apr	Potential flow, Kutta-Joukowski Theorem	8.1-8.4	
21-Apr	Test # 2	Chapters 3-7	
26-Apr	Airfoil theory-continued	8.6, 8.7	
28-Apr	Wing and airfoil theory	Supplementary reading	HW11
3-May	Wing and airfoil theory (continued)	Supplementary reading	
5-May	Wing theory continued, course review	Supplementary reading	HW 12
<b>14 May</b>	<b>Final Examination 7:00 – 10:00 PM</b>	Comprehensive	