

ME 361 Thermodynamics - Summer 2008
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 Office Hours:

Class #	Date	Topic	Reading before class	Problems set due at beginning of class
1	2 Jun	Introduction:		
2	2 Jun	Units, basic concepts / EES introduction	1.1-1.7	
3	3 Jun	Work, energy	2.1-2.3	1
4	3 Jun	Heat, energy balances, cycles	2.4-2.6	
5	4 Jun	Properties, property tables	3.1-3.3	2
6	4 Jun	More properties, reference states	3.3, 3.5	
7	5 Jun	Ideal gas law, specific heat	3.6-3.8	3
8	5 Jun	Conservation of mass, closed systems	4.1	
June 9: Holiday				
9	10 Jun	Conservation of energy, first law	4.2	4
10	10 Jun	First law, steady state	4.3	
11	11 Jun	Unsteady-state problems	4.4	5
12	11 Jun	Review		
13	12 Jun	EXAM 1		
14	13 Jun	Second law statements	5.1	
15	13 Jun	Thermodynamic reversibility	5.2	
16	14 Jun	Thermodynamic temperature & Ideal cycles	5.3-5.6	6
17	14 Jun	Entropy	6.1-6.2	
June 15-17: Huang Shan				
18	18 Jun	Property relations	6.3-6.4	7
19	18 Jun	Entropy production	6.5	
20	19 Jun	General entropy balance	6.6	8
21	19 Jun	Entropy relations	6.7-6.10	
22	23 Jun	Isentropic processes (2 sessions)	6.11	9
23	24 Jun	Review		10
24	25 Jun	EXAM II		
Jun 26 – Jun 29: Mid-term Recess				
25	30 Jun	Isentropic efficiencies	6.12-6.13	
26	30 Jun	Rankine cycle	8.1-8.2	
27	1 Jul	Superheat, reheat, regeneration	8.3-8.5	11
28	1 Jul	Otto cycle	9.1-9.2	
29	2 Jul	Diesel cycle	9.3-9.4	12
30	2 Jul	Gas turbine, Brayton cycle	9.5-9.6	
31	3 Jul	Tour – Power Plant		
July 4 th Holiday				
32	7 Jul	Regeneration, reheat and intercooling	9.7-9.8	13
33	7 Jul	Jet Engines	9.9	
34	8 Jul	Gas cycles, Stirling	9.11	14
35	8 Jul	Refrigeration	10.1-10.2	
36	9 Jul	Heat pumps, alternative refrigerants	10.3, 10.6	15
37	9 Jul	Review / Project Assignment	12.1-12.3	
38	10 Jul	Tour – Ice storage-Air Conditioning		
39	14 Jul	Psychrometrics, Adiabatic saturation	12.5-12.6	Project Due
40	14 Jul	Psychrometric chart and EES	12.7	
41	15 Jul	Psychrometric applications	12.8	16
42	15 Jul	Psychrometrics – cooling towers	12.9	
43	16 Jul	Combustion mass balances	13.1	17
44	16 Jul	Enthalpies, heating values	13.2	
45	21 Jul	Adiabatic combustion temperature	13.3	18
46	22 Jul	Review		19