ME 311 – Thermodynamics I

Pre-requisite: Math 211; Phys 111

Text: **Thermodynamics – An Engineering Approach** by Y. A. Cengel and M. A. Boles; 5th Edition; McGraw-Hill, 2006

Week	Content & Chapter(s)	HW Assignments
1	Introduction and Basic Concepts (Chap 1); Energy Analysis (Chap 2)	Assignment 1 (8 problems)
2	Properties of Pure Substance & Phase Diagram (Chap 3)	
3	Solution of HW-1; Equation of State of Pure Substance (Chap 3)	Assignment 2 (8 problems)
4	Energy Analysis of Closed System – Part I (Chap 4)	
5	Solution of HW-2; **Quiz 1**	-
6	Solution of Quiz-1; Energy Analysis of Closed System – Part II (Chap 4)	Assignment 3 (8 problems)
7	Energy Analysis of Open System – Part I (Chap 5)	
8	Solution of HW-3; Energy Analysis of Open System – Part II (Chap 5)	Assignment 4 (8 problems)
9	Energy Analysis of Open System – Part III (Chap 5)	
10	Solution of HW-4; **Quiz 2**	-
11	Solution of Quiz-2; Entropy (Chap 7)	Assignment 5 (8 problems)
12	Second-Law of Thermodynamics (Chap 6)	
13	Solution of HW-5; Exergy (Chap 8)	Assignment 6 (4 problems)
14	Solution of HW-6; Course Review	-