

Mechanical and Industrial Engineering 230
Fall 2009

Thermodynamics Course Syllabus

<u>Date</u>	<u>Topics to be Covered</u>	<u>Suggested Reading</u>
Week 1 (9/8/2009)	Introductory material	Chapter 1
Week 2 (9/15/2009)	Concepts of energy, work and heat transfer	Chapter 2
Week 3 (9/22/2009)	First Law of Thermodynamics	Chapter 2
Week 4 (9/29/2009)	Evaluating properties of pure substances p - v - T relations	Chapter 3
Week 5 (10/6/2009)	Ideal gas model	Chapter 3
Week 6 (10/13/2009)	Evening Exam #1 (Time TBA) <i>No class 10/13/2009 – Monday Schedule</i>	Chapter 4
Week 7 (10/20/2009)	Control volume analysis - open systems Conservation of mass and energy <i>No class 10/20/2009</i>	Chapter 4
Week 8 (10/27/2009)	Second Law of Thermodynamics Heat engines and refrigerators	Chapter 5
Week 9 (11/3/2009)	Carnot cycle	Chapter 5
Week 10 (11/10/2009)	Entropy Process efficiencies	Chapter 6
Week 11 (11/17/2009)	Vapor power systems	Chapter 8
Week 12 (11/24/2009)	Evening Exam #2 (Time TBA) <i>No class 11/24/2009</i>	Chapter 8
Week 13 (12/1/2009)	Internal combustion engine power cycles	Chapter 9
Week 14 (12/8/2009)	Refrigeration and heat pump systems	Chapter 9
Week 15 (12/14/2009)	Final Exam (Date and time TBA)	Chapter 10