ME 301
Basic Engineering Thermodynamics
Syllabus for Lecture
Spring 2016

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Office hours: MW 1:00-2:00 pm
Office: EMS RM-308
Lecture: MW 2:00 pm-3:15 pm
Location: Kenwood Inter-discipline Research Complex 1150
Web Page: D2L (Desire2Learn)

Objectives: This course will focus on the fundamental theory and applications for the thermodynamics. The major attentions will be on the three laws of thermodynamics. The basic applications of the laws in the area of ideal and real gases; thermo-cycles and electrochemical energy conversions will also be covered.

Text: Fundamentals of Engineering Thermodynamics, Moran et al. John Wiley & Sons, Inc. 8th Ed.

Homework and Discussion Sections: Five problems will be given each week as homework. The homework is due in one week after posting. Homework will be graded. ***You are strongly encouraged to finish all the homework questions, because 50% of the questions in all the exams will be directly from the homework.***

Grading: Homework will represent 20% of the final grade. There will be three in-class exams and final examination. Each of the three in-class exam (100 points each) will represent 15% of final grade and the final will be 35%. The students who get 90% of the homework and three in-class exams can choose to "opt-out" the final. An "A-" will be given to 90%-94% and "A" will be given to 95%. There will be no make-up exams.

Grade	Total Points
F	<60
D-	60
D	64
D+	67
C-	70
C	74
C+	77
B-	80
B	84
B+	87
A-	90
A	94

Academic dishonesty: Every aspect of academic life not only formal coursework situations, but all relationships and interactions connected to the educational process shall be conducted in an absolutely and uncompromisingly honest manner. Any submission of work for academic credit indicates that the work is the student's own and is in compliance with University policies. It is OK to get help on a question from a classmate anytime except during the exams. Academic misconduct will be subject to disciplinary action via UWM Faculty Document 1686/UWM Chapter 14. If there is any question in your mind about whether or not the action you are about to undertake constitutes cheating, IT DOES, and DO NOT PROCEED!!

Attendance: You are expected to attend all lectures and discussions.

Lecture Schedules:

Week	Date	Topic	Chapter
1	**01/25, 01/27**	**Concepts and definitions**	**1**
2	**02/01, 02/03**	**Energy and the First Law**	**2**
3	**02/08, 02/10**	**Energy and the First Law**	**2**
4	**02/15, 02/17**	**Evaluating Properties**	**3**
5	**02/22, 02/24**	**Evaluating Properties**	**3**
6	**02/29, 03/02**	**03/02 exam1**	

7	**03/07, 03/09**	**Control volume analysis**	**4**
8	**03/14, 03/16**	**Spring Break no class**	
9	**03/21, 03/23**	**CVA, The Second Law**	**4**
10	**03/28, 03/30**	**The Second Law, entropy**	**5**
11	**04/04, 04/06**	**The Second Law, entropy**	**5**
12	**04/11, 04/13**	**04/11 Review, 04/13 Exam2**	
13	**04/18, 04/20**	**Using Entropy**	**6**
14	**04/25, 04/27**	**Using Entropy**	**6**
15	**05/02, 05/04**	**Chemical energy Conversion*, 05/06 Exam3**	**13**

- **Will not be included in the exam3 and final.**