

**58:140 Intermediate Thermodynamics****Spring 2003**

Monday – Wednesday – Friday, 9:30 – 10:20, Room 4501 SC

<http://css.engineering.uiowa.edu/~me140/>**Instructor:**

Pablo M. Carrica

Invited Associate Professor

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[pablo-carrica@uiowa.edu](mailto:pablo-carrica@uiowa.edu)**Office hours – problem solving sessions:**

Monday – Wednesday – Friday, 10:30 – 12:20, Room 1139.

**Textbook:**M. J. Moran & H. N. Shapiro, *Fundamentals of Engineering Thermodynamics*, 4<sup>th</sup> Edition, Wiley & Sons, 2000.

Class notes and handouts.

**Objectives:**

Go more in depth into fundamentals of Thermodynamics. Equations of state, thermodynamics properties, homogeneous mixtures, fugacity, multiphase-multicomponent systems and chemical reactions will be covered. The proper study of this course is also important for those who intend to continue Graduate School, since Thermodynamics is a subject required in the Qualifying Exams in most Engineering Schools.

**Prerequisites:**

58:040 Thermodynamics II

**Grading:**

Mid-term Exam:	100 points
Final Exam:	200 points
Term paper:	100 points
<u>Homework:</u>	<u>100 points</u>
Total:	500 points

**Homework Problems:**

The problems will be given on each class, and are due one week after. All the course will be in SI units unless otherwise stated. Students can work in homework assignments together, but should submit independent write-ups for grading.

**Examinations:**

There will be a mid-term exam and a final exam. All exams will be open-book tests. Bring the appropriate material to the examination.

**How to succeed:**

Thermodynamics is better learnt through exercising. We strongly recommend to attend classes, do the homework concisely and read the assignments.