

SYLLABUS

Thermodynamics and Statistical Mechanics/PHYS 4311

SPRING 2006

INSTRUCTOR: Robert Glosser - Office, FO2.724C, (972) 883-2876

e-mail: glosser@utdallas.edu <<mailto:glosser@utdallas.edu>>

Office hours: 2:00 to 3:00 pm Mondays and Wednesdays or by appointment

TEACHING ASSISTANT: Justin Schaefer, FN2.108, (972) 883 2867, e-mail: schaefer@utdallas.edu

SESSIONS: Monday and Wednesday in FN2.106 from 5:30 to 6:45 pm with classes beginning January 9 and ending April 24. The final exam is scheduled for April 26 at 5:00pm until 7:45pm.

TEXTS: REQUIRED: An Introduction to Thermal Physics by Daniel V. Schroeder published by Addison Wesley

COURSE MECHANICS: 2 exams, Midterm: Wed., March 1 and Final: Wed., April 26 at 5:00pm. (**NOTE DAY AND TIME.**)

GRADING: Homework 20%, Midterm 40%, and Final 40%. Homework will be assigned from time to time and is due one week after assignment.

PREREQUISITES: PHYS 3312, Classical Mechanics and PHYS 3352, Modern Physics I or instructor's permission

TOPICS COVERED: At least initially, we will follow the order of the text. From time to time supplemental material may be handed out. The topics to be presented (which are the chapter headings) are as follows:

1. Energy in Thermal Physics
2. The Second Law
3. Interactions and Implications
4. Engines and Refrigerators
5. Free Energy and Chemical Thermodynamics
6. Boltzmann Statistics
7. Quantum Statistics
8. System of Interacting Particles