8.333 Organization - Fall 2003

General Information

Course Catalog description:

8.333: Statistical Mechanics of Particles

Prerequites: Elementary Statistical Mechanics (8.044), and Quantum Mechanics (8.05).

Units: 4-0-8

Lectures and Recitations: MWF 2:30-4:00 pm (<u>4-231</u>), First lecture on September 3.

Use of the Web

The URL for the home page of this course is http://web.mit.edu/8.333/www. Students should check this site frequently for updates.

The distribution of all documents (course schedule, lecture notes, homework problems and solutions, and other handouts and announcements) will be done mostly using the World-Wide-Web. But, note that these handouts are only accessible to sites in the MIT domain.

Grades will be posted on the web using student aliases to maintain confidentiality. Aliases should be chosen by students when <u>checking in online</u> at the start of term.

You can also <u>send your comments anonymously</u> using the provided online form (Be constructive!). Discussions of general interest will be posted.

Textbooks

This course does not follow a particular text. The following are useful reference books:

K. Huang Statistical MechanicsR. K. Pathria Statistical Mechanics

A. B. Pippard Elements of Classical Thermodynamics

S.-K. Ma Statistical Mechanics L.D. Landau & E.M. Lifshitz Statistical Physics, Part 1

F. Reif Fundamentals of Statistical and Thermal Physics

R.P. Feynman Statistical Mechanics

In addition to the main library, many of these books can be found in the Physics Reading Room 4-365.

Problem Sets

The homework assignments are an important part of this course, and the final average homework score will count for 50% of the final grade. You may consult with classmates in "study groups," as long as you write out your own answers, and do not use solution-sets from previous years.

The complete <u>schedule of assignments</u> (there will be 11) with due dates is available online. Hyperlinks to the actual problem sets and solutions will be created as the term progresses. Problem

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sets are due **by 5:00 pm on the due date**. They are to be turned in to the appropriate homework cubby near Ex-Room <u>4-339B</u> (across from the Physics Education Office, next to the Common Room). No problem sets will be accepted after the solutions have been posted. Problem sets handed in after the 5 pm deadline but before the solutions have been posted are subject to a **50% grade penalty**.

Exams

Midterm Exam: Wednesday, October 22 during lecture time.

Final exam: To be scheduled by the registrar in the week on December 15-19.

Each exam score will count for 25% of the final grade.

A missed midterm will be averaged into the final grade as zero, unless an excuse is obtained in advance. Excuses are granted only for very serious circumstances attested to by the Dean or a medical doctor. A student who has been excused may be required to take a makeup exam.

Grading

Final grades will be determined from:

Exams: 25% eachHomework: 50%

Your final letter grade will reflect our best attempt to evaluate objectively your performance in the course:

- **A**: Exceptionally good performance, demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.
- **B**: Good performance, demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.
- C: Adequate performance, demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.
- **D**: Minimally acceptable performance, demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.
- **F**: Failed. This grade also signifies that the student must repeat the subject to receive credit.
- --From the MIT *Regulations of the Faculty*

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