

Physics 301: Thermodynamics and Statistical Mechanics

Fall 2024

MW 8:30-9:45 in PAIS Room 1140

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Office hours in PAIS Room 3248: you are welcome anytime – just drop in.

Appointments: 277-2087 and by email.

Problems session, Tuesdays, 8:00-8:50 am in PAIS Room 1140. Drop-ins are welcome.

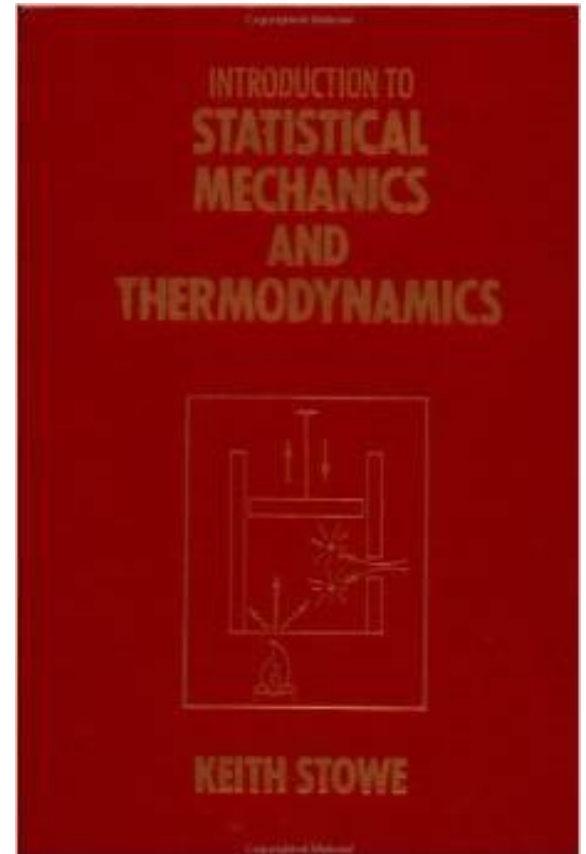
Pre-requisite: Physics 1230 or 1310 series, and Physics 330.

Required reading: “Introduction to Statistical Mechanics and Thermodynamics,” by Keith Stowe, plus a few supplementary documents that are posted on the course web page. Please note:

(1) this book is out of print, but copies can be found on Amazon and other sites.

(2) this book *is not the same* as Keith Stowe’s book of the similar title, “An Introduction to Thermodynamics and Statistical Mechanics.” Please be sure to get the right book.

Class attendance is required and will be considered when final grades are computed. Late homework must be accompanied by a doctor’s excuse or similar document.



Course structure:

- 31 lectures will be presented. The slides are available at:
<http://www-hep.phys.unm.edu/~seidel/Phys301/>. You are encouraged to bring the slides to each lecture and annotate them as needed. Revisions to the slides may be made daily.
- Each class period will include 30 minutes' lecture followed by 45 minutes during which students will form pairs to work on one in-class problem. Credit for work on that problem is only available in class and cannot be made up. **In-class problems are worth 10% of the grade.**
- On alternate Wednesdays, a 20-minute open-book quiz will be given *promptly at 8:30AM*. There will be **7 quizzes, each contributing 5% of the grade**. Quiz dates: Sep. 4, Sep. 18, Oct. 2, Oct. 16, Oct. 30, Nov. 13, Nov. 27.
- Homework will be distributed weekly. **Homework is worth 25% of the final grade.**
- There will be an open-book **final exam worth 30% of the final grade.**