PHYS4101 Thermal Physics Fall 2021

Together we will use this course to learn about classical and quantum mechanical systems that contain very large numbers of particles. The course integrates two topics familiar to all physicists. One is "Thermodynamics", which concerns the bulk properties of matter. The other is "Statistical Mechanics" which focuses on the microscopic properties of matter, averaged over the number of particles. This unified approach is both powerful and enlightening.

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WEB PAGE:	https://phys.cst.temple.edu/~napolj/PHYS4101/	
MEETINGS:	Wachman 408	Tue 12:30-13:50, Thu 12:30-13:50
TEXTBOOK:	Daniel Schroeder, *An Introduction to Thermal Physics* https://physics.weber.edu/thermal/	

The syllabus (including homework assignments) is posted on the course web page, along with general course information and a detailed list of topics we will cover. **Homework is due at the start of every class**, except for the first class and classes on which there are midterm exams. I urge you to collaborate with classmates on the homework. You are welcome to use your book or other materials for the exams, but you must work them on your own. A final exam will be given at the assigned time during finals week.

GRADING POLICY

Your course grade will be determined by the homework (20%), midterm exams (20% for each), and final exam (40%). Cutoffs for course grades A, B, and C are 90%, 80%, and 70%, respectively. I expect to make some use of "grade modifiers", that is $\pm$ after the grade. I may make other adjustments to the overall grading scheme if there are special circumstances.

LEARNING OUTCOMES

Upon successfully completing the course students will demonstrate an ability to apply concepts and theories of Thermal Physics in problem solving tasks, as well as the ability to make use of physical principles along with mathematics to describe thermodynamic and statistical mechanical phenomena. **Diligent completion of the homework assignments will be a critically important component of how you will learn the material.**

ACADEMIC INTEGRITY STATEMENT

Put simply, don't copy someone else's homework, and don't cheat on the exams. If I suspect you of either, I will ask for an explanation. If your explanation is unsatisfactory, you will be given a grade of zero and reported to the College. If this happens more than once, you will be given an F for the course.