

# STATISTICAL MECHANICS

Physics 8301 Tu & Th Period 5 2:20 - 3:35 Room 254 Fall Semester 2022

Physics 8301 is an advanced thermodynamics and statistical mechanics course covering traditional topics, new developments, and applications.

*Part 1: Foundations. Part 2. Phase Transitions. Part 3: Applications.*

Instructor Prof. Michael Geller  
Email: mgeller@uga.edu

Office Hours After class and by appointment  
Room 305G Physics Building

## Required Course Materials

None.

## Homework

Homework problems will be assigned during class. The problems may be quite challenging and you are encouraged to work together. The midterm exam will be partly composed of problems similar to the homework. Homework assignments and due dates will be given in class and there will be no credit for late homework. Some homework assignments require programming in Python.

## Exams

There will be one midterm exam. The midterm will be closed book and closed notes. Exams are property of the Department of Physics and Astronomy and will be available for viewing but are not returned. Students will submit a final project instead of a final exam.

The midterm exam will be during our regular class period on **Thursday October 20** in our regular classroom. The final project will be due the last day of class **Thursday December 1** during our regular class period.

## Grading

Your final grade will be determined according to:

Homework	40%
Midterm exam	20%
In-class presentation	20%
Final project	20%

The grading scale is as follows (points rounded to the nearest integer):

A	89 - 100%
A-	86 - 88%
B+	83 - 85%
B	79 - 82%
B-	76 - 78%
C+	73 - 75%
C	69 - 72%
C-	66 - 68%
D	50- 65%
F	0 - 49%

### Academic Honesty

All academic work must meet the standards contained in the document *A Culture of Honesty*, available at <https://honesty.uga.edu>. Every student is responsible for knowing and understanding this policy. If you have any questions concerning this you are obligated to ask me for clarification. Anyone caught cheating will be reported to the university and will receive an F for the course.

### General Information

This syllabus is a general plan for the course and deviations may be necessary. You are responsible for attending every lecture. Each student is responsible for the material discussed in class and the announcements made in class. Absence from class does not relieve one of this responsibility.