

Note: This survey serves to inform your instructor and to test the homework submission via gradescope. It will be graded like a regular homework set.

1. List previous courses in Thermodynamics and Statistical Mechanics? (Please give institution, length (x terms, x semesters), textbooks)

Solution:

Directly Related:

Intro to Thermodynamics

Penn State University

1 Semester (3 credits)

Thermodynamics, An Engineering Approach; Yunus A. Çengel, Michael A. Boles

Intermediate Thermodynamics

Oregon State University

1 term (4 credits)

Thermodynamics, 1st Ed; S. A. Klein, G. Nellis

Not so Directly Related:

Combustion (Hot Thermo)

Oregon State University

1 term (4 credits)

An Introduction to Combustion, Concepts and Applications; Stephen Turns

Gas Dynamics (Fast Thermo)

Oregon State University

1 term (4 credits)

Fundamental of Gas Dynamics; Zucker, Biblarz

2. How would you rate your background in Thermodynamics?

Solution:

I believe I have a pretty strong background in Thermo. I have had quite a few classes on the subject and also passed the Thermodynamics oral and written exams for my department (MIME Thermal-Fluid Sciences).

3. How would you rate your background in Statistical Mechanics?

Solution:

I do not have a strong background in statistical mechanics. We touched on the topic briefly in my intermediate thermo class.

4. What is your field of interest/research? (For example: solid state (materials, organic, nanotechnology), biophysics, optics, astrophysics, particles, undecided, etc.)

Solution:

I am a student in the Mechanical Engineering department with a focus in Thermal-Fluid Sciences. My research is on the modeling of soot/nanoparticles for direct numerical simulations (DNS) using a markov chain monte carlo solver on GPUs.

5. What do you expect to learn in this course (Ph641 and Ph642)?

Solution:

From these classes, I hope to gain a better understanding of how particles behave at the microscopic level and that this knowledge will help me better understand the physical side of my research.

Side Note: My preferred form of note taking has always been writing everything by hand and I get a little concerned when a professor uses slides. I completely understand the justification for using them, given the circumstances. However, I was wondering if the pace of the course will still allow for hand writing all notes or if I should adjust my note taking plan. Thanks!