

Physics 4311: Thermal Physics – Spring Semester 2025

Instructor:	Thomas Vojta Office: 103 Physics, phone: 341-4793, email: vojtat@mst.edu
Class time:	11:00am – 12:15pm Tuesday, Thursday Room 127 Physics
Office hours:	The official office hours are Monday 2:00pm – 3:00pm, but you can drop in any time, or email me for an appointment.
Course web page:	http://thomasvojta.com/class_4311/class_4311.html
Prerequisites:	Physics 2305 or Physics 2111
Textbook:	Blundell + Blundell, <i>Concepts in Thermal Physics</i> , Oxford University Press, 2010
Further reading:	Reif, <i>Fundamentals of Statistical and Thermal Physics</i> Schroeder, <i>An Introduction to Thermal Physics</i>
Homework:	<p>Homework assignments will be given in class on Tuesday and also posted on the WWW. Assignments are due the following Tuesday as pdf uploads in Canvas. Each assignment will be worth 40 points, and your 10 highest scores will count towards the grade.</p> <p>Discussions among colleagues is allowed and encouraged. However, the solutions you hand in should represent your effort and thinking and not that of a group. You should document the intermediate steps of your solution (partial credit will be given) and list any reference material which you directly use.</p>
Project:	In addition to the homework you will work on one larger project in the second half of the semester. You will be able to choose from several topics (computer simulations, in-class talks). The project will be worth 100 points.
AI Use:	You may use AI systems such as ChatGPT as tools to help you research, but you need to examine all information critically. AIs are known to hallucinate and give incorrect information. You are responsible for making sure the information you present in your assignment is correct, and you need to document all your sources, including AI systems. Having AI write your homework solutions or project report is not acceptable as it misses the learning objective of the assignments.
Tests:	There will be two midsemester tests counting 150 points each and a comprehensive final exam counting 200 points. The midsemester tests will be given on Thursday, Mar 6, 2025 and on Thursday, April 17, 2025 during class time. The final exam will be on Friday, May 16, 2025 from 7:30am – 9:30am.
Grade:	Course grade will be based on the total number of points earned on the homework, test and exam, expressed as a percentage of the total number of points available (1000). The relation between performance and grade will be the standard one: $A \geq 90\% > B \geq 80\% > C \geq 70\%$. The boundaries

between the grades may be revised downwards (i.e., to the students benefit) depending upon the judgement of the instructor, but will not be revised upwards.

Complaints:

It is hoped that any problems can be resolved through discussions between student and instructor. If there are any complaints that cannot be resolved you may contact Dr. Klaus Woelk, Associate Dean for Academic Affairs (woelk@mst.edu).