

Thermal Physics

PHY B52 - Winter 2022

Lecture	Tuesday	1:00 pm - 3:00 pm	BV 260
TUT 02	Wednesday	3:00 pm - 5:00 pm	IC 328
TUT 03	Wednesday	9:00 am - 11:00 am	IC 328

Instructor: Johann Bayer **Email:** jbayer@utsc.utoronto.ca **Course Website:** q.utoronto.ca

Office Hours (Tentative)

Tuesday	10:00 am - 11:00 am
Thursday	10:00 am - 11:00 am
Thursday	2:00 pm - 3:00 pm

Course Description, Learning Outcomes, and Requirements

The course will start with the idea of thermal equilibrium; an extension to the concepts of energy, heat, and work; and the definitions of temperature and entropy. We will continue with a study of TJ 261.960Td (a)-6.01368(n)2

Required Materials

- **Calculator:** A scientific, non-programmable, and non-graphing calculator is required.
- **Textbook:** *An Introduction to Thermal Physics* by Daniel V. Schroeder (OUP Oxford 2021)

The schedule found at the end of this document indicates the chapters and sections you must read **before** each lecture or the release of a lecture video. The textbook also provides the conceptual questions and detailed problems that will be the subject of the weekly problem sets, reading quizzes, and tutorial work.

- **Technical Requirements for Remote and Online Learning:**

Please review the minimum and recommended technical requirements for learning in the remote and online environment. You must have access to a fast and reliable internet connection (minimum 10 Mbps download and upload speed, preferably fiber).

Tutorial Work (continued from previous page ...)

After the end of each session a set of problems and questions derived from the tutorial discussions will be made available. Each student will then be required to submit their individually-completed work on these problems and questions. In order to submit the answers to these problems and questions you will be required to digitize the completed work either through the use of a scanner or by converting photos into acceptable PDF files. When using a mobile device, the use of a document scanner app is strongly recommended. While missing submissions will receive a score of **0 points** and late submissions will be assigned a penalty described in the course website, your final grade will be calculated as the average of the **best 10** results, providing you with the opportunity to make up for any low scores received.

Test #1 (15%)

This **2-hour¹** long test will be scheduled tentatively

Email Communications

If you want to ask a question via email, please first check the various threads in the PeppeR section of the course website. Quite likely, you are not the only person with that same question, and if that question has already been asked, you will find the answer there. If the question has not been asked, go ahead and post it yourself instead of sending it by email. This way you will also help other students facing the same issue. These discussions are monitored regularly by the course instructor and your peers, making it the best way of communicating for various queries of a diverse nature.

However, if the electronic forums are not the best place for your specific concern, make sure to send your email from an official **utoronto.ca** address (e.g., your UTmail+ account), as all other addresses will be filtered out automatically. For a quicker response time include the code **PHYB52** in the subject line of your message.

While I rarely reply to emails during weekends, during weekdays I will reply to all emails within a period no greater than 24 hours.

Policies on In-Person Lectures and Tutorials

- As per the latest UTSC Regulations concerning COVID-19, all students must wear appropriate masks, be fully vaccinated, and complete their UCheck screening prior to attendance to each in-person lecture and tutorial session.
- Lectures start at 1:10pm and end at 3:00pm. Tutorials run from 9:10am to 11:00am and 3:10pm to 5:00pm. Late arrival or early departure is inappropriate and highly disruptive so please be respectful of the learning environment.
- Regarding anything that you want to use in the classroom: if you are not using it to perform a task specifically related to what we are doing in class at that very moment, you must put it away. This includes but is not limited to cell phones, laptop computers, tablets, and other electronic devices.
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Academic Integrity and Respect for the Academic Endeavor

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters:

<https://governingcouncil.utoronto.ca/media/15068/view>

outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

- In papers and assignments: Using someone else's ideas or words without appropriate acknowledg-

Class Schedule

This schedule is *tentative* and might change during the term in order to accommodate for variations in the lecture discussions or lecture videos in response to student performance and understanding of the various topics.

Please note that it is your responsibility to read the assigned sections **before** each lecture discussion or lecture video, and in preparation for the completion of the respective reading quiz.

The lecture discussions or lecture videos will **not**