

Introductory Physics II
PHYS 1212
Course outline- Winter 2026

Instructor:

Dr. Oleksandr Bubon
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Schedule:

Lectures: Monday, Wednesday and Friday 4:30 pm – 5:30 BB-1021

Required resource:

Access to WileyPlus, linked to Halliday Resnick Walker, *Fundamentals of Physics*, 12th edition.

Resources:

- The primary resource will be Halliday Resnick Walker, *Fundamentals of Physics*, 12th edition. This is the same textbook as PHYS1211. It is not essential to have the 12th edition. Current price with WileyPlus is \$218.95. You can get the Ebook&WileyPlus access for this term only for \$98.99. Prices are those of the [LU bookstore](#) and subject to change.
- For those students that purchased only Fall term access to the WileyPlus to upgrade your purchase for \$60 please contact for detailed upgrade instructions.
- A valuable resource are the open-access [University Physics vol. 2](#) and [University Physics vol. 3](#).

Marking scheme:

- Assignments (roughly one every two weeks): 15%, to be submitted through WileyPlus
- Labs: 15%. Please note: ***all labs must be completed*** to the satisfaction of the instructor else you will receive an incomplete for this course, and your mark will be capped at 49.
- One midterm: Wednesday, Feb 25th: 25%
- Final exam: 45%

Proposed topics:

At the end of the course, the student should be familiar with:

1. Oscillations,
2. Waves,
3. Coulomb's law Electric fields, and Gauss' law,
4. Electric potential,
5. Capacitors,
6. Currents, resistance and basic DC circuits,
7. Static and time-dependent magnetic fields, including induction and inductance,
8. Images.

This covers roughly chapters 15-17,21-32 and 34 of your textbook.

Lab Schedule (tentative):

1. Week of Jan. 12th/19th: Standing Waves
2. Week of Jan. 26th/Feb.2nd: Electric Fields
3. Week of Feb. 9th/23rd: Electric Meters & Ohm's Law

4. Week of March 2nd/9th: AC Circuits
5. Week March 16th/23rd: Thin Lenses
6. March 30th : make up lab

Accommodations:

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>.

Lecture notes, exams, and assignments:

The course materials—including lecture notes (and any handwritten notes), assignments, and exams—may be updated, revised, or replaced at any time. While I make every effort to avoid mistakes, these materials may still contain errors or typos. In addition, some figures are included without formal copyright clearance.

Therefore, the notes, exams, and assignments are provided for course use only and are **not** to be distributed publicly.