

PHYS 1051, Section 001, Winter 2024

Instructor: Dr. Stephanie Curnoe

Welcome to PHYS 1051!

PHYS 1051 is the continuation of PHYS 1050 that covers waves, electricity and magnetism.

Contact Information: If you have questions outside of class about the course content you may post them in the “Discussions” section for PHYS 1051 on Brightspace (online.mun.ca) and I will address those questions either on Brightspace or during class. For other inquiries you may contact me by email, curnoe@mun.ca. My office is Room C3013; feel free to drop by.

For any questions concerning laboratories, please contact the Lab Instructor, Dr. Ming Li, ml6255@mun.ca, Room C3054a.

Lectures: Mondays, Wednesdays & Fridays 12:00-12:50 (slot 5) Room IIC 2001
Blank copies and filled-in notes of the lecture slides will be available online from Brightspace.

Textbook: University Physics by Young and Freedman 15th ed. You should purchase this book at the University Bookstore in order to obtain the access code for completing online assignments.

Evaluation Scheme

Assignments (Mastering Physics) 7%

Problem Sessions 3%

Laboratories 20%

Midterm test #1 (Friday, February 2, 2024) 15%

Midterm test #2 (Friday, March 8, 2024) 15%

Final examination 40%

A minimum of 50% in the laboratory part of the course is required to pass the course.

Assignments: Assignments will be administered using the online system “Mastering Physics.” A link to this system can be found on the course Brightspace homepage.

Problem Sessions: Three problem sessions will be held during the laboratory sessions. At the end of the session you will be asked to submit your solution to one exam-style question. 3% of your final grade will be awarded for handing in completed solutions.

Laboratories

Section 002: Wednesdays 2-3:50 PM

Section 003: Tuesdays 9-10:50 AM

Section 007: Thursdays 9-10:50 AM

The first lab sessions will take place during the week of January 8 to January 12, 2024. You must attend the lab section that you have registered for. All labs are in Room C2039. Each experiment is set up for one week and students will complete the experiment during the timeslot of their Section.

There will be 6 experiments and 1 lab skills test which will be weighted equally in the laboratory part of the course grade.

Midterm Tests: Midterm tests will take place on Friday, February 2 and Friday, March 8, 2024. Non-programmable calculators are permitted but cellphones are not. You must bring your Campus ID to the midterm tests to confirm your identity. **If a student receives a mark on the final exam which is higher than the average of their midterm exam marks then the midterm exam marks will not be included in the final course grade and the final exam mark will count for 70%; however, this will not apply to mid-term exam marks of '0' awarded when midterm exams are missed without acceptable cause.**

Final Exam: The final exam will be a 2.5 hour written exam which will be scheduled during the final exam period, April 10 to April 19, 2024.

Prerequisites: PHYS 1050 or 1021 or 1020 with a minimum grade of 70%, Mathematics 1001 (may be taken concurrently), Science 1807 and Science 1808.

Outline and Lecture Schedule

Subject	Chapters	Lectures (approx)
Oscillatory motion (review)	14	1
Mechanical Waves	15.1 to 15.8	3
Sound Waves	16.1 to 16.7	3
Electric Charge and Electric Fields	21.1 to 21.7	3
Gauss's Law	22.1 to 22.5	2
Electric potential	23.1 to 23.5	2
Capacitors and Dielectrics	24.1 to 24.4	2
Current, Resistance and EMF	25.1 to 25.6	4
DC Circuits	26.1, 26.2, 26.4	2
Magnetic Forces and Magnetic Fields	27.1 to 27.9	3
Sources of Magnetic Field	28.1 to 28.7	2
Electromagnetic Induction	29.1 to 29.7	3
Inductance	30.1 to 30.6	4

Missed Midterm Tests: If you miss a midterm test because of illness or other acceptable cause you must send an email to the course instructor, Dr. Stephanie Curnoe, curnoe@mun.ca, within two days of missing the test. Please see the Calendar, Section 6.7.5,

Exemptions from Parts of the Evaluation. A doctor's note is not required unless your illness or medical condition persists for at least five days. Documentation for other reasons (such as bereavement) is required. If you miss one midterm test because of illness or other acceptable cause then the final exam will be worth 55% of your final grade. If you miss both midterm tests because

of illness or other acceptable cause then your final exam will be worth 70% of your final grade.

Missed Lab or Problem Session: If you miss a lab or problem session because of illness or other acceptable cause you must send an email to the lab instructor, Dr. Ming Li, ml6255@mun.ca, within two days of missing the lab. Please see the Calendar, Section 6.7.5,

[Exemptions from Parts of the Evaluation](#). A doctor's note is not required unless your illness or medical condition persists for at least five days. Documentation for other reasons (such as bereavement) is required. You may be permitted to complete the lab or problem session on a different day; otherwise your mark will be determined based on the labs or problem sessions you have completed.

Missed Final Exam: Please consult the University Calendar, Section 6.8.2

[Exemptions From Final Examinations and Procedures for Applying to Write Deferred Final Examinations](#).

Academic Misconduct: Memorial University adheres to the highest standards of academic integrity. Please consult the University Calendar, Section 6.12 [Academic Misconduct](#). In order to limit opportunities for cheating during exams, cellphones will not be permitted at exams. Cellphones must be stored out-of-reach during exams; this means that students will not be permitted to use cellphone calculator apps during exams.

Students may be asked to present their MUN Campus ID Card in order to confirm their identity during any course activity; students must bring their Campus ID Card to midterm and final exams.

Use of Recording Devices in Classrooms: The lectures and displays (and all material) delivered or provided in this course, including any visual or audio recording thereof, are subject to copyright owned by Dr. Curnoe. It is prohibited to record or copy by any means, in any format, openly or surreptitiously, in whole or in part, in the absence of express written permission from Dr. Curnoe any of the lectures or materials provided or published in any form during or from the course. Students must not record, publish, send, post on an internet site, sell, rent, or otherwise distribute this work without Dr. Curnoe's express written permission.

Memorial University is committed to accommodating students with disabilities.

A final note about disruptions due to natural disasters (pandemics, snowstorms, etc): If class activities, including labs or midterm exams, are disrupted then students should anticipate that these activities will be rescheduled if possible. If midterm exams are cancelled for any reason then the weight attached to those exams (15% each) will be transferred to the final exam.

Physics 1051 - Winter 2024

Monday	Tuesday	Wednesday	Thursday	Friday
Jan/1	Jan/2	Jan/3	Jan/4 Lectures Begin	Jan/5
Jan/8 Lab0: Introduction	Jan/9 Lab0: Introduction	Jan/10 Lab0: Introduction	Jan/11	Jan/12 Lab0: Introduction
Jan/15 Experiment 1 Standing Waves	Jan/16 Experiment 1 Standing Waves	Jan/17 Experiment 1 Standing Waves	Jan/18	Jan/19 Experiment 1 Standing Waves
Jan/22 Problem Set 1	Jan/23 Problem Set 1	Jan/24 Problem Set 1	Jan/25	Jan/26 Problem Set 1
Jan/29 Experiment 2 Sound and Resonance	Jan/30 Experiment 2 Sound and Resonance	Jan/31 Experiment 2 Sound and Resonance	Feb/1	Feb/2 Experiment 2 Sound and Resonance TERM TEST 1
Feb/5 Lab Skills Test	Feb/6 Lab Skills Test	Feb/7 Lab Skills Test	Feb/8	Feb/9 Lab Skills Test
Feb/12 Experiment 3 Electric Field & Potential	Feb/13 Experiment 3 Electric Field & Potential	Feb/14 Experiment 3 Electric Field & Potential	Feb/15	Feb/16 Experiment 3 Electric Field & Potential
Feb/19 Break	Feb/20 Break	Feb/21 Break	Feb/22 Break	Feb/23 Break
Feb/26 Problem Set 2	Feb/27 Problem Set 2	Feb/28 Problem Set 2	Feb/29	Mar/1 Problem Set 2
Mar/4 Experiment 4 Kirchhoff's Law	Mar/5 Experiment 4 Kirchhoff's Law	Mar/6 Experiment 4 Kirchhoff's Law	Mar/7	Mar/8 Experiment 4 Kirchhoff's Law TERM TEST 2
Mar/11 Experiment 5 Capacitor Charge & Discharge	Mar/12 Experiment 5 Capacitor Charge & Discharge	Mar/13 Experiment 5 Capacitor Charge & Discharge	Mar/14	Mar/15 Experiment 5 Capacitor Charge & Discharge
Mar/18 Experiment 6 DC Motor	Mar/19 Experiment 6 DC Motor	Mar/20 Experiment 6 DC Motor	Mar/21	Mar/22 Experiment 6 DC Motor
Mar/25 Free Period	Mar/26 Free Period	Mar/27 Free Period	Mar/28	Mar/29 Good Friday, no lectures.
Apr/1 Problem Set 3	Apr/2 Problem Set 3	Apr/3 Problem Set 3	Apr/4	Apr/5 Problem Set 3 / Lectures End