

PHY225 SYLLABUS – Fall semester, 2025.

Week	Room	Date	Experiments
1	101	Aug 25 to Aug 29	Equipotential and Electric Fields
		Sep 01 to Sep 05	WEEK OFF (Monday - Labor Day)
2	100	Sep 08 to Sep 12	The Millikan-Fletcher Experiment
3	101	Sep 15 to Sep 19	Force between Two Current Carrying Wires
4	100	Sep 22 to Sep 26	DC Electrical Measurements
5	101	Sep 29 to Oct 03	Geometrical Optics
6	100	Oct 06 to Oct 10	The Oscilloscope and its Use
		Oct 13 to Oct 17	FALL RECESS
7	101	Oct 20 to Oct 24	Interference and Diffraction
8	100	Oct 27 to Oct 31	Alternating Current Circuits
9	101	Nov 03 to Nov 07	Determining the Refractive Index of Air
10	100	Nov 10 to Nov 14	Determination of the Ratio e/m for the Electron

IMPORTANT NOTES:

Laboratory Courses

The Department of Physics offers four undergraduate laboratory courses: PHY106, PHY108, PHY224, and PHY225. Each course consists of ten experiments. Specific experiment dates are provided in the SYLLABUS for each course, which also indicates the weeks off.

Laboratory Layout

Each laboratory session accommodates a maximum of 18 students, divided into pairs working at nine identical workstations. The number of sections per course is determined by total enrollment. Details about the experiments and schedules can be found on the SYLLABUS on Blackboard platform, the Undergraduate Physics Labs website, and on the side doors of the laboratory rooms.

Laboratory Procedures

During the first session, students will meet with their assigned instructor, who will provide an overview of the course and explain the lab policies. Students are expected to take note of their instructor's full name and email address. Before each lab session, students must review the Course Documents and print the final pages, starting with the section labeled "Full Name, Course, and Section." These pages should be completed during the lab and submitted to the instructor at the end of the session for grading. Grades will be uploaded to Blackboard, and the graded work will be returned during the following lab session for students' records. Each lab will be graded on a 100-point scale. Final grades will be calculated as the average of all lab scores and will be available on the CaneLink platform starting December 5.

Laboratory Safety Regulations

For the safety of both students and laboratory equipment, students may only enter the laboratory when the instructor is already present, consuming food or beverages inside the laboratory is strictly prohibited at all times. If a student needs to eat or drink for health-related reasons, they must request permission from the instructor and step outside the laboratory to do so. Instructors are encouraged to inspect the equipment before each student begins their experiment. For electrical circuits, it is essential to verify proper connections to prevent malfunctions or hazards. Any damage to equipment caused by improper handling or lack of attention will be the student's responsibility. Such incidents may result in a reduction of their grade, and in severe cases, could lead to fail the lab.

Attendance Policy

The laboratory program adheres to a strict schedule due to the high demand for spaces and the rotation of multiple sections. Missing a laboratory session results in a 10% reduction in the final grade. Missing four or more laboratory sessions leads to an automatic failing grade.

Excusable absences include participation in university-authorized events (with an official UM letter), illness (supported by a valid medical note), or the death of a family member (documented with an obituary). Students with valid excuses must contact their instructor to coordinate a make-up session. Unjustified absences are not eligible for make-up opportunities, and the associated grade reductions will apply without exceptions.

Religious Holy Day Policy

The University of Miami, although a secular institution, is determined to accommodate those students who wish to observe religious holy days. It seeks to reflect its awareness of and sensitivity to religious holy days whenever possible when scheduling University activities. The following provisions are meant to apply equitably to all religious groups and to provide opportunities to all to meet their religious obligations.

1. Except as specifically provided to the contrary, this policy is binding on all students and faculty members in undergraduate programs. Schools offering graduate or professional programs, including undergraduate professional programs, are strongly encouraged to adhere to these policies to the maximum extent practicable.
2. Any student absent from class in observance of a religious holy day shall not be penalized in any way for an examination or assignment missed during the period of absence. Absence in observance of a religious holy day does not relieve students from responsibility for any part of the course work required during the period of absence. Students who are absent on days of examinations or class assignments shall be offered a reasonable opportunity to make up the work without penalty, if the student previously arranged to be absent. Nothing in this policy shall preclude faculty members from limiting the number of student absences to a reasonable number of absences for any reason. The faculty member has discretion to determine how the make-up obligation will be fulfilled. A faculty member who penalizes a student contrary to these provisions may have committed unprofessional conduct, and thus may be subject to a complaint to the Committee on Professional Conduct under the provisions of Section B4.10 of the Faculty Manual.
3. It is the student's obligation to provide faculty members with notice of the dates they will be absent due to observance of religious holy days, preferably before the beginning of classes but no later than the end of the first three class days. For religious holy days that fall within the first three class days, students must provide faculty members with notice no later than two class days before the absence. Missing a class due to travel plans associated with a particular religious holy day does not constitute an excused absence. Absences due to observance of religious holy days that are not pre-arranged with the relevant faculty member within the first three class days may be considered unexcused, and the faculty member may therefore prevent the student from making up examinations or assignments missed during the period of absence.
4. Faculty members are encouraged to anticipate days when a substantial number of students will be absent for observance of religious holy days and should avoid scheduling examinations and assignment deadlines on those days. Faculty members are expected to reasonably assist students in obtaining class information the student missed during the period of absence in observance of a

religious holy day. In that regard, faculty members are urged to allow taping or recording of the class session, with the reproduction limited to the student's personal use, when a student misses a class due to observance of a religious holy day. To assist in identifying religious observance days, faculty members are encouraged to consult the illustrative list provided in the Interfaith Calendar. Faculty members are urged to remind students of their obligation to inform faculty members within the first three class days of any anticipated absences due to observance of religious holy days and should include that information in the syllabus or course requirements document for that course.

These guidelines outline the framework for ensuring organization, fairness, and success in the Department of Physics laboratory courses.

Coordination of Physics laboratories