

Syllabus

PHY 2049 - Physics 2 with Calculus – Spring 2022

This syllabus contains the basic outline of the course organization. For complete details on the course policies, please visit the course [Canvas page](#).

IMPORTANT: Due to the current Covid-19 outbreak, we offer an option of attending all lectures, discussion sessions, and office hours via Zoom. You do not need to do anything with your registration for the class. If you chose to come in person, you are expected to wear a mask (properly covering your mouth and nose all the time) and respect social distancing.

Instructors	Prof. Imre Bartos	Prof. Paul Avery
Office	NPB 2025	NPB 2029
Phone	(352) 392-3582	(352) 392-9264
E-mail	phy2049@phys.ufl.edu (use this email for all communications with instructors)	

Office hours

Office hours for the instructors and discussion section leaders are detailed on the course [Canvas page](#).

Course objectives and goals

PHY2049 is a calculus-based introduction to general physics, Part II. Topics covered include electric charge as a fundamental property of matter, electrostatics (Coulomb's Law, electric field, electric potential), EMF, capacitors, currents, resistors, electric circuits, magnetic fields due to currents, magnetic forces, inductors, Maxwell's equations, electromagnetic waves, optics, interference. Our goal at all times is to help you understand the basic physical principles so that you can develop a deeper vision of the real world around you. In addition to providing the basic theoretical underpinnings to the subject, we use many examples, "concept questions", physical and virtual demonstrations. We also show many examples of everyday tools and advanced instruments that utilize these principles.

Prerequisites

- PHY2048 (Physics I with calculus) or similar.
- Algebra, Trigonometry, Analytic Geometry, Vectors
- Calculus 1
- Calculus 2 (co-requisite)

The course relies heavily on the following level of math (see textbook Appendix E for details). If you are not competent at this level you should take the appropriate refresher course(s) before taking this class; otherwise, you have a high probability of doing poorly in the class.

Course schedule

The complete course schedule is available on the [Canvas page](#). Note that Exam 1 (Feb. 15) and Exam 2 (Mar. 23) are evening assembly exams. The Final Exam is at the time set by the registrar in final's week (April 26).

Grading

Please visit the course [Canvas page](#) for a complete description of the grading policy for exams, homework, quizzes, and iClicker questions. Homework and iClicker questions will not have makeups – a forgiveness factor will be supplied instead.

Your final score (105 points max) is the sum of the following:

- **3 exams:** up to 25 points each, 75 points total
- **13 approx. weekly HW assignments:** 5 points combined
- **11 approx. weekly discussion session quizzes:** 20 points combined
- **iClicker/Participation points during lectures:** 5 *BONUS* points

Note: In case of cancellation of classes due to unforeseen circumstances, the number of HW and quiz assignments might be adjusted, while the maximum number of points earned in each category stays the same.

Total minimal scores ensuring a particular letter-grade are shown below. In other words, if everyone gets 85 or more, everyone gets an "A". *Do not expect scores to be curved.*

A	≥85
A-	≥80
B+	≥75
B	≥70
B-	≥65
C+	≥60
C	≥55
C-	≥50
D+	≥45

Required material

The following material should be acquired as soon as possible

- **WileyPlus homework passcode which includes access to the electronic text book**

The textbook for the course is Fundamentals of Physics, 11th Edition, by: Halliday, Resnick, Walker, Wiley (2018). *The electronic version is included with the HW access code.* The homework in this course is done online using the WileyPLUS system. Access to the online homework system requires a WileyPLUS access code. Details on how to purchase access to Wiley can be found on the course [Canvas page](#).

- **iClicker software installed**

Class attendance, make-up exams, etc...

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Further details of the conditions for make-ups are described on the course [Canvas page](#).

Accommodations for students with disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) by providing appropriate documentation. Once registered, students will receive an accommodation document that must be sent to phy2049@phys.ufl.edu when requesting accommodation. Students should follow this procedure as early as possible in the semester.

UF grading policies

Information on current UF grading policies for assigning grade points can be found here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Online course evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at: <https://ufl.bluera.com/ufl/>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

The Honor Pledge

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment”. The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.”

Counseling and Wellness Center

Counseling and Wellness Center: <https://counseling.ufl.edu>, 352-392-1575
For emergencies, University Police Department (352-392-1111) or 911.

Recorded zoom sessions

Our class sessions will be audio-visually recorded, via Zoom or otherwise. When we use Zoom, students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate verbally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Diversity and Inclusion

Physics is practiced and advanced by a scientific community of individuals with diverse backgrounds and identities and is open and welcoming to everyone. The instructional team recognizes the value in diversity, equity and inclusion in all aspects of this course. This includes, but is not limited to differences in race, ethnicity, gender identity, gender expression, sexual orientation, age, socioeconomic status, religion and disability. Students may have opportunities to work together in this course. We expect respectful student collaborations such as attentive listening and responding to the contributions of all teammates.

Physics, like all human endeavors, is something that is learned. Our aim is to foster an atmosphere of learning that is based on inclusion, transparency and respect for all participants. We acknowledge the different needs and perspectives we bring to our common learning space and strive to provide everyone with equal access. All students meeting the course prerequisites belong here and are well positioned for success.