



Department of Physics
College of Natural Sciences
and Mathematics

(Last update 11/24/2024)

COURSE TITLE/SECTION: Physics 1302 College Physics II/Class Number 12864

TIME: Tu/Th 11:30AM – 12:50PM **LOCATION:** SR1 Rm 116

FACULTY: Volodymyr Vovchenko **OFFICE HOURS:** W 11AM-12PM, SR1-629C or by appointment

E-mail: vvovchen@central.uh.edu **Phone:** (713) 743-4328
Prepend "PHYS1302:" to the subject of the email.

Physics 1302 College Physics II

Catalog Description: Second semester of a two-part non-calculus-based course covering thermodynamics, electricity, magnetism, electromagnetic waves, optics, and modern physics.

Primarily for majors other than physics and engineering. Credit may not be applied toward a degree for both Phys 1302 and University Physics II, Phys 2326.

Prerequisites: Phys 1301

Course Structure:

Computer and internet access are required for this course.

Canvas, Expert TA, Microsoft Teams and possibly other online resources will be required for this course. Students may also be required to send scans of paper documents (i.e. using a smart phone with camera or scanner).

Use this link to register for our Expert TA course: **<http://goeta.link/USQ45TX-B8894F-3EC>**

You must use your Cougarnet email (with extension @cougarnet.uh.edu) to register for Expert TA. See below for information about obtaining your Expert TA access code. If you do not yet have your Expert TA access code, you can still register with a free trial and add your access code later.

Required Materials: Expert TA, OpenStax College Physics textbook.

Undergraduate students enrolled in this course have been automatically opted into the Cougar Textbook Access Program (CTAP). CTAP provides undergraduate students access to all your required course materials before the first day of class, for one low, flat fee. You may choose to opt out of the CTAP fee through your student account; however, if you opt out, you will need to

procure the course materials for all your classes on your own. Please visit the [CTAP website](#) for more detailed information or email ctapuh@central.uh.edu.

If you did not opt out of CTAP, your Expert TA access code will be provided through CTAP. You will receive an email when your Expert TA access code can be picked up at the UH Campus Store. The product may be listed as "Intro to physics homework (semester)." A link to the online textbook will be available on Canvas or can be accessed directly via <https://openstax.org/details/books/college-physics>.

If you opted out of CTAP, Expert TA may be purchased through the UH Campus Store, or standalone access can be purchased directly from the website <https://theexpertta.com/>. The online textbook is freely available at the link above.

A printed copy of the textbook can be purchased if desired but is not required.

Course Requirements:

- A. **Homework Assignments:** Homework will be completed online using Expert TA. Ten or more homework problems will be assigned at the beginning of each chapter and will be due approximately one week from that date. The due dates are generally on **Monday at midnight**. Due dates can be changed if class material is not covered on time. **It is your responsibility to check for new homework assignments and due dates change.** Solutions to the HomeWorks will be available one day after they are due. **NO LATE HOMEWORK will be accepted.** To account for emergencies, the professor will drop the lowest grade at the end of the semester.
- B. **Exams:** There will be three regular exams. Regular exams will cover 3-5 chapters each. There will also be a longer final exam which will be comprehensive, covering all the material in the course. The exams will be administered by CASA. Exams will be offered for several days, which may include weekends. You must sign up for an exam time in advance. You can log onto the CASA website <https://ccs.casa.uh.edu/canvas2.html> with your CougarNet credentials to schedule your exams.
- C. **Teamwork/Attendance Component:** Concept questions will be administered during the lecture, starting from the second week. Students will discuss these questions in teams as a method of peer instruction. Answers to the concept questions will be submitted using **Point Solutions Technology**. Each question will give you 1 point if your answer is incorrect and 2 points if it is correct. If your participation points are over 70%, you will receive full credit for the Attendance component. This will account for emergencies, excused absences, and technical difficulties. If you apply for justified absences, the calculation of clicker point fraction will omit the days you were absent. **If you are required to attend recitation sections, 50% of this grade is determined from lecture concept questions and 50% from recitation section attendance.** Students enrolled in a SEP course are not required to attend recitations. The SEP attendance grade will replace the recitation attendance.
- D. **Student Success Program/Recitation Sessions:** This course will include recitation study groups. Recitation sessions are held for one hour each week and begin the third week of classes. These sessions provide the opportunity to participate in problem-solving activities designed to enhance your understanding and mastery of the course content. All students are invited to attend. It is **HIGHLY RECOMMENDED** that students who earned below a B in Phys 1301 attend recitations. **Any student scoring below the departmental average on the 1st Regular Exam in this course MUST attend one recitation each week for the remainder of the semester.** For these students, recitations will count for 50% of the Teamwork/Attendance component grade. Recitation

attendance will be graded as the percentage of required recitation sessions attended. Students must arrive on time, stay for the entire session, and record their attendance.

Purchasing PointSolutions Subscription (You must follow the instructions below to register)

- **New students:** We will use the PointSolutions (PS) response system to engage during the lecture. If you are in the **CTAP** program, the bookstore will give out a PS subscription code. You can enter this PS code when creating your PS account. See the tutorial below. If you opt out of the CTAP program, you can purchase a subscription (\$41.50/year) at UH bookstore, ISBN: **9781934931714**, or Echo 360 website (\$34.99/year) or (\$24.99/term) after creating your PointSolutions account. See the tutorial below.
- **Current students who used PointSolutions before:** All of your PointSolutions account information will automatically be copied from the previous semester. However, you must log in to your account to check if your subscription is still valid. If you are in the CTAP program and the subscription expired, go to the UH bookstore to pick up a PS subscription card. If you are opted out of the CTAP program and your subscription is expired, you must purchase another subscription.

Creating PointSolutions Account and Redeeming Subscription:

- New students need to create a PointSolutions account and register subscription. [See this tutorial.](#)
- Current students need to check your PointSolutions account. [See this tutorial.](#)
- How to use your mobile device to join the polling. [See this tutorial.](#)

Student PointSolutions Support: clicker@uh.edu or 1-877-ECHO360

Grading (Total 1000 points):

100 points	Teamwork/Attendance
100 points	Homework
190 points	Regular Exam I
190 points	Regular Exam II
190 points	Regular Exam III
230 points	Final Exam

The Final Exam score may replace the lowest score among the three Regular Exam scores, if the replacement benefits the student.

The grade will be determined strictly by your total number of points.

Extra Points:

- 20 points If you get **80% or more of the total clicker**. If you get between 70% and 80%, you will receive the corresponding fraction of the 20 points.
- 20 points If you **complete the class evaluation** at the end of the semester.
- 5 points If you **complete Homework 14**.

Additional points may be given for participation during lectures and other activities communicated by the instructor in advance.

You won't be eligible for extra points if you violate academic honesty rules.

Grading Criteria: The curved grades depend on your total number of points:

Points	Grade
850-up	A
800-849.99	A-
750-799.99	B+
725-749.99	B
700-724.99	B-
650-699.99	C+
600-649.99	C
550-599.99	C-
500-549.99	D+
450-499.99	D
400-449.99	D-
0-399.99	F

CASA Exam Procedures: See the [CASA Testing Center Guidelines](#).

Makeup Exams: Makeup exams will only be allowed for documented reasons listed under the [Undergraduate Excused Absence Policy](#). You must contact your instructor before the exam if possible or as soon as possible after missing the exam to make the request. Makeup exams at CASA will be held in the week following the regular exam. If your request for a makeup exam is approved, your instructor will contact you by email, typically on Monday of that week, to inform you what day you will be able to take the makeup and to give instructions for scheduling. If you expect to have an extended absence or to miss multiple exams, please contact your instructor to discuss other alternatives. The Final Exam may replace a Regular Exam, including a missing exam if the replacement benefits the student.

Academic Honesty: It is each student's responsibility to read and understand the Academic Honesty Policy found at <http://www.uh.edu/academic-honesty-undergraduate>.

The following rules apply to all exams for this class:

- Do not communicate about the exam with anyone (other than your instructor or CASA staff) from the time that the first student takes the exam until 48 hours after the last student takes the exam.
- Do not post information about the exam at any time (while you are taking it or afterward) on a website or any other forum where other people can find the information.
- Do not make or save a record of the exam questions. This includes screenshots, pictures, video, copying and pasting the text, etc.
- Do not use any electronic devices while taking the exam other than the computer you are using to take the exam and your calculator.
- While you are taking the exam, you may not have any other applications open on your computer.

- Do not consult any outside resources such as books, notes, or websites while taking the exam.
- Do not search for or view exam questions that have been posted to websites, including but not limited to Chegg or Course Hero. Viewing exam questions on these websites while the exam is ongoing will be considered an act of academic dishonesty.

Academic Honesty proceedings may be initiated against any student who violates these rules.

Course Objectives:

The objective of this course is to learn the principles of electromagnetism and modern physics.

Upon completion of this course, students will be able to:

1. comprehend and apply laws such as Gauss' law, Coulomb' laws and Kirchoff's law;
2. be able to apply basic physics laws to solve real life problems;
3. to develop the processes of logical thinking and reasoning.

Other learning outcomes include:

1. Students completing this course will be able to convey knowledge of the basics principles of physics and be able to use these principles to solve elementary problems.
2. Students will be able to take a real-life problem and use physical principles and basic mathematical tools to describe the problem.
3. Student will have the ability to communicate orally and in writing in a clear concise manner the concepts of Physics.

Course Content:

This course will cover Chapters 18-31,13-15 which include the following topical areas:

1. Electric Charge, Forces and Fields
2. Electric Potential and Potential Energy
3. Electric Current and DC Circuits
4. Magnetism and Faraday's law
5. Electromagnetic Waves
6. Optics
7. Quantum and Atomic Physics
8. Thermal Physics

Course Schedule:

Dates	Chapters/Sections
Week 1 (8/20,8/22)	18
Week 2 (8/27,8/29)	19
Week 3 (9/3,9/5)	20
Week 4 (9/10,9/12)	21
Week 5 (9/17,9/19)	22
Week 6 (9/24,9/26)	23

9/26-9/28 Exam 1 at CASA	Ch 18-21
Week 7 (10/1,10/3)	24
Week 8 (10/8,10/10)	25
Week 9 (10/15,10/17)	27
Week 10 (10/21,10/25)	29
10/24-10/26 Exam 2 at CASA	Ch 22-25
Week 11 (10/29,10/31)	30
Week 12 (11/5,11/7)	30-31
Week 13 (11/12,11/14)	31
Week 14 (11/19,11/21)	13
11/21-11/23 Exam 3 at CASA	Ch 27, 29-31
Week 15 (11/26)	14
11/27-11/30 Thanksgiving – No Classes	
12/5-12/7 Final Exam at CASA	Ch 18-25,27,29-31,13-14

Other Important Dates:

9/4 Last day to drop without receiving a W

11/20 Last day to drop with a W

Tutoring and Additional Resources: See <https://uh.edu/nsm/physics/undergraduate/intro-course-info/> .

Policy on grades of I (Incomplete): The temporary grade of I (incomplete) is a conditional and temporary grade given when students (a) are currently passing a course or (b) still have a reasonable chance of passing in the judgment of the instructor, but for non-academic reasons beyond their control have not completed a relatively small part of all requirements. Incompletes will be given only when documentation has been submitted to support the need to receive an incomplete, i.e., medical statements.

Mental Health and Wellness Resources

The University of Houston has a number of resources to support students' mental health and overall wellness, including [CoogsCARE](#) and the [UH Go App](#). UH [Counseling and Psychological Services \(CAPS\)](#) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off-campus. For assistance visit uh.edu/caps, call 713-743-5454, or visit a [Let's Talk](#) location in-person or virtually. [Let's Talk](#) are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

Need Support Now?

If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text [988](tel:988), or chat 988lifeline.org.

Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed.

The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

Title IX/Sexual Misconduct

Per the UHS Sexual Misconduct Policy, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office. Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the Title IX website at <https://uh.edu/equal-opportunity/title-ix-sexual-misconduct/resources/>.

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website: <https://uh.edu/accessibility/> calling (713) 743-5400, or emailing jdcenter@Central.UH.EDU.

The [Student Health Center](#) offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment.

The [A.D. Bruce Religion Center](#) offers spiritual support and a variety of programs centered on well-being.

The [Center for Student Advocacy and Community \(CSAC\)](#) is where you can go if you need help but don't know where to start. CSAC is a “home away from home” and serves as a [resource hub](#) to help you get the resources needed to support academic and personal success. Through our [Cougar Cupboard](#), all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The [Cougar Closet](#) is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: @uh_CSAC and @uhcupbrd. YOU belong here.

Women and Gender Resource Center

The mission of the [WGRC](#) is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 (Basement floor near Starbucks and down the hall from Creation Station) from 9 am to 5 pm Monday through Friday.

Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston [Undergraduate Excused Absence Policy](#) and [Graduate Excused Absence Policy](#) for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).

Recording of Class

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Justin Dart, Jr. Student Accessibility Center](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Syllabus Changes

Please note that the instructor may need to make modifications to the course syllabus. Notice of such changes will be announced as quickly as possible.