

PHYSICS 1101 SYLLABUS – May 31, 2023

YEAR COURSE OFFERED: 2023

SEMESTER COURSE OFFERED: Summer

DEPARTMENT: Physics

COURSE NUMBER: 1101

NAME OF COURSE: College Physics I Laboratory

NAME OF INSTRUCTOR: Sladjana Maric & Lowell Wood

EMAIL: smaric@Central.uh.edu; lwood@Central.uh.edu;

OFFICE: SR1 Rooms 512 A and B

OFFICE HOURS: Open door policy or by appointment

The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies the instructor presents during the course.

Learning Objectives

Students will learn the fundamental processes of introductory experimental physics. They will learn how to measure position versus time and extract velocity and acceleration from those measurements.

They will understand how velocity and acceleration relate to Newton's laws of motion, momentum, and energy conservation. Vectors, torque, circular motion, simple harmonic motion, and standing waves are also studied. Understanding how graphical analysis can be used to analyze data is essential to the course.

Required Reading

College Physics Laboratory Manual, Volume One by Lowell T. Wood and Sladjana Maric, 16th edition.

Recommended Reading

College Physics, OpenStax (textbook for Physics 1301)

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Technology Requirements, Class Rules, and Regulations

Canvas, PC or Mac computers, printers, rulers, calculators, and internet access are required for this course. Printers will be used to print Pre-Laboratory Assignments, and students are welcome to use printing credit at UH Library to print class-related material.

The use of cell phones in the laboratory is not permitted because of the distractions it causes to other students. Please step outside the laboratory during that brief time if you must make or take a call. During Quizzes and the Final Examination, cell phones, smartwatches, and small electronic devices must be placed in the designated box at the TAs desk. All other possessions must be stored in backpacks/bags, which will be closed and placed next to the storage cabinets in the middle of the room.

Students must attend the section for which they are officially enrolled (please see the [Guesting Request](#) section for more information). The laboratory is designed to accommodate 24 students working in 12 groups of two students each. **No more than two students should work at any station.** The instructor may allow more than two students per station when unusual circumstances occur. Even in these situations, the number of students at each station cannot exceed three students.

Students are responsible for dropping the course should they choose to do so. Consult the [Important Dates](#) section in this document for pertinent dates and deadlines. If you drop PHYS1301, you are **NOT** automatically dropped from PHYS1101. You must also drop the laboratory section if you choose to do so. Students who do not officially drop the laboratory, but quit attending, will receive an F letter grade in the course. You **CAN NOT** be dropped on the final grade sheet.

No food or drink may be consumed inside the laboratories. In addition, food or drinks (water included) may not be placed on the tables, floor, side desks, or cabinets. Instead, they can be placed on the outside chair beside the entrance doors.

Equipment is not to be moved from the station. Each station has the correct working equipment for the current lab. Students cannot move equipment from one station to another or move tables around. The table in front of you connected to your station is a different station, and students sitting there are in a different group. Report any equipment malfunctions to your instructor and follow their instructions. You must leave the equipment at the table, ready for use by the next group. Failure to leave the working station neat will result in **40 points deduction from the Laboratory report for each group member.** **Hiding, taking, or intentionally destroying laboratory equipment will result in an F letter grade in the course.** You are responsible for reading and following the laboratory safety instructions and introduction in the Laboratory Manual.

Occasionally, you may have a laboratory exercise covering material you have not yet covered in the lecture. When this happens, you should read the section in your text to help you in the laboratory. In addition, all the students are strongly encouraged to watch the Laboratory videos. This preparation should also help you better understand the material presented in the lecture and see the laboratory equipment before attending the lab. Remember that the Laboratory Manual is not a textbook used to learn concepts. The theory section in the Laboratory Manual is only a short reminder of basic concepts. Students should read the [textbook](#) assigned for the course.

The laboratory exercises are intended to be a cooperative effort with your laboratory partners (you will collect the data together), but there are certain general rules that you must obey:

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- A. Each person in the group should do the complete calculations and record their results independently. You may check results with your partner but cannot copy results. Copying the Laboratory Report from another student will result in zero scores **for each student involved. A second offense of this type will result in an academic integrity report. Our recommendation will be an F grade in the course and a note on the academic record.**
- B. Each person should do their own graphs. Again checking results is ok; copying is not.
- C. If you discuss the questions with your partners, you should give the answers in your own words. Copying someone else's work is not acceptable.
- D. All Quizzes and the Final Examination are done without assistance from another person. Collaborating in any way with other students during Quizzes and Final Examinations is strictly prohibited. All [honor code](#) violations will be handled as described in the [UH Academic Honesty Policy](#). The sanctions for confirmed violations may include but are not limited to: a lowered grade, failure on the examination or Assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these.
- E. To receive credit for answering a question on a Laboratory Report, Quiz, Pre-Laboratory Assignment, or Final Examination, you must provide detailed work and a correct explanation **in all cases, whether or not the question specifically asks for an explanation.** Sometimes drawing a graph or figure can help a lot.
- F. During the past few semesters, we have had a few cases where students copied data from previous semesters and presented the work as their own. You should know that we change the input data each semester to know if anyone is doing this. You will receive a zero on that report. **A second offense of this type will result in an academic integrity report. Our recommendation will be an F grade in the course and a note on the academic record.**
- G. Copying the Pre-Laboratory Assignment from another student or Chegg/Wikipedia (or **any** other internet source) will result in zero scores **for all students involved.**
- H. Posting scanned Laboratory Manual pages graded or clean on Course Hero, Chegg, Brainly, or any other website violates the copyright. Each individual will be appropriately sanctioned, and disciplinary measures will be taken.
- I. Posting graded laboratory materials (Laboratory Reports, Pre-Laboratory Assignments, and/or Quizzes) on **any** of the websites will result in dropping the student from the class. In some cases, a student will be assigned an F letter grade, and/or honor code violation sanctions may be applied.

Please note on the schedule that the last experiment and **Final Examination Review** are on the same day. The purpose of the review is to provide an opportunity for you to ask specific questions about topics on which you are unclear. Several questions will be provided to guide you in your preparation.

Course Delivery Format and Testing

This course is scheduled for face-to-face classroom instruction. No portion of this class will be online. **Testing will be conducted in person inside the classroom.**

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Major Assignments/Exams

Twelve Laboratory Reports completed in class count 40% of the grade, 12 Pre-Laboratory Assignments completed outside of class count 10% of the grade, five 30-minute, in-class Quizzes count 20% of the grade, and a comprehensive Final Examination counts 30% of the course grade. Remember that the Quizzes and Final Examination scores determine 50% of your grade; missing any will substantially lower your grade.

Grading

The grades for this class are determined by the following:

1. 40% - Laboratory Reports (2pt deduction for each wrong/missing unit (max 10 times) and significant figures (max 10 times) on reported answers). One 100% Laboratory Report is worth 3.33% of your total score.
2. 10% - Pre-Laboratory Assignments (1pt deduction for each wrong/missing unit (max 5 times) and significant figures (max 5 times) on reported answers). One 100% Pre-Laboratory Assignment is worth 0.833% of your total score.
3. 20% - Quizzes (30 minutes at the beginning of the class – 5 total). Each Quiz will cover one lab (according to the schedule) and consist of one question with 5-15 parts related to one another. One 100% Quiz is worth 4.00% of your total score.
4. 30% - Final Examination.

The Final Examination will consist of 5 problems, each worth 20 points. One problem will be over an experiment on which you have already been quizzed. Additionally, there will be four problems over experiments you have not yet been quizzed on. Each problem will have 5 – 10 short parts related to one another. The Final Examination is scheduled at the same time as your regular laboratory meeting. **Since you know the time of your Final Examination early in the semester, please do not schedule other functions during this time.** Missing the Final Examination will most assuredly lower your grade substantially.

We **DO NOT** dispose of (drop) any assignment scores in this class; we **do not** add any points to your total weighted score (some students refer to this practice as “curve”).

Your scores **within your section** will be arranged from the highest to the lowest, and letter grades are assigned using the best breaks in the distribution. The average letter grade is in the B- range. For A/A- grade in this class, your overall score will have to be 25 – 30 points above the class average. The grading spreadsheet on Canvas gives your class averages for each Assignment and your overall score. Before the Final Examination scores are entered, look at the Quiz score averages to gauge your standing in the class.

As you can see, what determines your grade are Quizzes and the Final Examination. Please practice relevant problems, prepare yourself best, and always ask questions. You are allowed (and you should) to ask 1000 questions repeatedly. We are here to answer all of them and teach you this subject. If the same question has to be answered 100 times until each student understands the subject, it will be answered. It is our job to make sure you learn.

Regrading Policy: Dr. Maric and Dr. Wood are always happy to review your work with you to point out errors so you learn from your mistakes. If you wish to have your work regraded, it will be regraded in its entirety. If we find items marked wrong that are correct, we will add points to

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your score, but if we find wrong items that are not marked wrong, we will also correct that and subtract points from your score. This policy means your grade could be raised, lowered, or unchanged. Any request for regrading work must be submitted to us **within 3 class days** after the work is returned. All the graded materials will be returned to students at the beginning of the following class meeting. **Please inform Dr. Maric and Dr. Wood immediately if your TA does not return the graded material during the following class meeting.**

Laboratory Reports

The Laboratory Reports for this class are **due in the classroom at the end of each class**. For example, if you are enrolled in the 10 am – 1:00 pm section, your meeting will end at 12:50 pm each time, and your laboratory report is due at that time. The times for different sections will be adjusted according to your schedule using the same model.

Each student must have the Laboratory Manual, as only **reports submitted on original Laboratory Manual pages will be graded**. The first-class lab experiment pages will be provided if you did not receive your manual yet. After this, we will not make any more exceptions. **Laboratory Reports CAN NOT be done on the tablet with a stylus pen.**

We will NOT accept any Laboratory Reports submitted via email. Late reports will receive a score of zero. Laboratory Report is considered late if not submitted at the end of the class designated for that particular experiment with your class section.

Pre-Laboratory Assignments

The Pre-Laboratory Assignments for this class are **at the beginning of the class (or when you arrive in the classroom)**. You will print the Pre-Laboratory Assignment from the Canvas, complete it, and hand it to your TA at the beginning of the class. Printed paper with questions must be submitted for each Assignment in this class. **Pre-Laboratory Assignments CAN be done on the tablet with a stylus pen but MUST be printed and submitted for grading.** Students are not allowed to reformat the Pre-Laboratory Assignments in any way.

We will NOT accept any Assignments submitted via email. Late Assignments will receive a score of zero.

Pre-Laboratory Assignment is considered late if not submitted when you arrive in the lab.

Quizzes and Final Examination

The Quizzes and Final Examinations will be on the dates indicated in the Laboratory Schedule on Canvas. **Ensure you do not schedule other tests or activities that conflict with this class's test schedule.** A week before the first Quiz, you will be sent instructions on answering Quiz questions to receive full credit for each question. **You must write the letter corresponding to the correct answer on the line provided on the left side of the question for that question to receive credit.**

The Quizzes will be held during the first 30 minutes of the class. Students are responsible for arriving in the classroom on time, especially during Quiz days. If your class is scheduled for 10 am until 1 pm, the Quiz is offered from 10 am until 10:30 am. All the papers will be collected at 10:30 am, no matter when the student starts the test. For the rest of the sections, the same pattern

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will be used. The Final Examination will be during the regular class time, as indicated in Laboratory Schedule, and will last for 3 hours (finals will be collected at the end of the scheduled class time).

All of your Quiz papers will be scanned before being returned, and we will keep your Final Examination papers for two years.

The equation sheet will be provided only for the Final Examinations; you cannot use any notes for the Quizzes.

Guesting in a different Laboratory Section

No makeup Quizzes or labs are given. If you must miss a laboratory because of required attendance at an official University function, please complete the Guesting Requesting Form on Canvas and upload documentation with the form. If you miss a laboratory because of other unavoidable circumstances, you may guest in another laboratory one time without documentation by completing the Guesting Request Form. **Students are responsible for contacting their TA to obtain graded material.** To guest a second time, complete the Guesting Request Form and upload documentation in pdf format before approval. **You may not guest more than two times during the semester.** Work done in a laboratory section other than the one you are officially registered for will not count toward your grade unless you have Dr. Wood's or Dr. Maric's written permission to attend that section. **Any guesting request form must be submitted 12 hours before the laboratory you wish to attend starts.** Submitting the form does not guarantee approval – you must have an email approval from one of us to attend that laboratory. **Only 2 students will be permitted to guest in one section per week.** A permission email will be sent to the student and both TAs. **You may not guest in another section for the Final Examination. Do not wait until the last moment to submit the Guesting Request Form – everyone wants to guest on the last day the experiment is offered.**

The students enrolled in the last section must know that we change the experimental setup immediately after your class is finished. If you miss the class because of unavoidable circumstances, please submit the documentation within the 3 class days for the excused absence policy.

Please remember that we will receive excused absence documentation only in pdf format. Taking pictures and screenshots and converting them to pdf is unacceptable, and those files will not be accepted. Instead, you should scan the original document and email it.

Providing false information or documentation is unacceptable. Misconduct allegations will be referred for review and may be considered as prohibited conduct under the Student Code of Conduct or an act of academic dishonesty under the Academic Honesty Policy.

Note

You will receive graded Pre-Laboratory Assignments, Laboratory Reports, and Quizzes at the next laboratory meeting. **Please inform Dr. Maric or Dr. Wood immediately if you do not receive the graded work back.** Any issues at the lab should be reported to the instructors at your earliest convenience.

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Please carefully read all the emails the instructors share with you before and during the semester. Each student must ensure their UH alias is pointed to the correct destination email address and that those emails are not ending up in the spam directory.

Important Dates – Summer 2023

- **Monday, June 5, 2023** – First day of classes
- **Tuesday, June 6, 2023** – The last day to add a class
- **Thursday, June 8, 2023** – ORD (12th class day)
- **Monday, June 19, 2023** – Emancipation Day Holiday
- **Monday, June 26, 2023** – The last day to drop a course with a W
- **Wednesday, July 5, 2023** – Physics Labs Final Examinations (please see the Laboratory schedule)
- **Friday, July 7, 2023** – Official Closing of the semester
- **Monday, May 10, 2023** – Final Grades due in PeopleSoft

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for disabled students. In accordance with Section 504 and ADA guidelines, UH strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe you have a disability requiring an academic adjustment/auxiliary aid, please contact [the Justin Dart Jr. Student Accessibility Center](#) (formerly the Justin Dart, Jr. Center for Students with Disabilities).

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are essential 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 the 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](#). Providing false information or documentation is unacceptable. Misconduct allegations will be referred for review and may be considered as prohibited conduct under the [Student Code of Conduct](#) or an act of academic dishonesty under the [Academic Honesty Policy](#).

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Recording of Class

Students may not record all or part of the class, live stream all or part of the class, or make/distribute screen captures without the instructor's advanced written consent. If you have or think you may have a disability such that you need to record class-related activities, don't hesitate to get in touch with the [Justin Dart, Jr. Student Accessibility Center](#). Suppose you have an accommodation to record class-related activities. In that case, 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. The instructor may record classes. Students may use the instructor's recordings for their own studying and notetaking. The instructor's recordings are not authorized to be shared with *anyone* without the instructor's prior written approval. 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 that such changes will be announced as quickly as possible via email.

UH Email

Email communications related to this course will be sent to your [Exchange email account](#), which each University of Houston student receives. The Exchange mail server can be accessed via Outlook, which provides a single location for organizing and managing day-to-day information, from email and calendars to contacts and task lists. Exchange email accounts can be accessed by logging into Office 365 with your CougarNet credentials or Access UH. They can also be configured on [IOS](#) and [Android](#) mobile devices. Additional assistance can be found on the [Get Help](#) page.

Honor Code Statement

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.

Students may be asked to sign an honor code statement as part of their submission of any graded work, including but not limited to Laboratory Reports, Pre-Laboratory Assignments, Quizzes, and exams: *"I understand and agree to abide by the provisions in the [University of Houston Undergraduate Academic Honesty Policy](#). I understand that academic honesty is taken very seriously, and, in the cases of violations, penalties may include suspension or expulsion from the University of Houston."*

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According to the [UH Academic Honesty Policy](#), sanctions for confirmed cases of academic dishonesty “may include, but are not limited to: a lowered grade, failure on the examination or assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these.” This is a serious matter. Anyone tempted to violate the academic honesty rules should carefully consider these sanctions and the risk of having an academic honesty violation on their permanent record.

We want to be very explicit about the rules regarding academic honesty and your exams in this class:

- Do **NOT** communicate about the exam with anyone (other than your instructor) from when the first student takes the exam until the exam is available to students for review (7 days after the last student took the exam).
- Do **NOT** post information about the exam at any time (**while taking it or afterward**) on a website or any other forum where others can find the information.
- Do **NOT** make or save a record of the exam questions. This includes screenshots, pictures, videos, copying and pasting the text, *etc.*
- Do **NOT** use **electronic devices other than the approved calculator while taking the exam.**
- While you are taking the exam, no one should be solicited in any way to provide help.

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

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/>.

Security Escorts and Cougar Ride

UHPD continually works with the University community to make the campus a safe place to learn, work, and live. Our Security escort service is designed for community members who have safety concerns and would like to have a Security Officer walk with them for their safety as they make their way across campus. Based on availability, either a UHPD Security Officer or Police Officer will escort students, faculty, and staff to locations beginning and ending on campus. If you feel that you need a Security Officer to walk with you for your safety, please call [713-743-3333](tel:713-743-3333). Arrangements may be made for special needs.

Parking and Transportation Services also offers a late-night, on-demand shuttle service called Cougar Ride that provides rides to and from all on-campus shuttle stops, as well as the MD Anderson Library, Cougar Village/Moody Towers, and the UH Technology Bridge. Rides can be requested through the UH Go app. Days and hours of operation can be found at <https://uh.edu/af-university-services/parking/cougar-ride/>.

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Covid-19 Information

Students are encouraged to visit the University's [COVID-19](#) website for important information, including on-campus testing, vaccines, diagnosis, and symptom protocols, campus cleaning and safety practices, report forms, and positive cases on campus. Please check the website throughout the semester for updates. Consult the [Undergraduate Excused Absence Policy](#) for information regarding excused absences due to medical reasons.

Helpful Information

- Coogs Care: <https://uh.edu/dsa/coogscare/>
- Student Health Center: <https://uh.edu/class/english/lcc/current-students/student-health-center/index.php>

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PHYSICS 1101 LABORATORY SCHEDULE – Summer 2023 – May 23, 2023

Day	Date	Activities For Sections 10412, 10414, 12391	Activities For Sections 10413, 11056, 12716
Monday	June 5, 2023	Exp 1 – Room 232 F	
Tuesday	June 6, 2023	Exp 9 – Room 239 F	Exp 1 – Room 232 F
Wednesday	June 7, 2023	Exp 2 – Room 231 F (Q1 – Exp 1)	Exp 9 – Room 239 F
Thursday	June 8, 2023		Exp 2 – Room 232 F (Q1 – Exp 1)
Friday	June 9, 2023		
Monday	June 12, 2023	Exp 10 – Room 239	
Tuesday	June 13, 2023	Exp 3 – Room 233 F (Q2 – Exp 2)	Exp 10 – Room 239 F
Wednesday	June 14, 2023	Exp 7 – Room 239 F	Exp 3 – Room 233 F (Q2 – Exp 2)
Thursday	June 15, 2023		Exp 7 – Room 239 F
Friday	June 16, 2023		
Monday	June 19, 2023	<u>Emancipation Day - No Laboratory Meetings</u>	<u>Emancipation Day - No Laboratory Meetings</u>
Tuesday	June 20, 2023	Exp 11 – Room 239 F (Q3 – Exp 3)	
Wednesday	June 21, 2023	Exp 8 – Room 232 F	Exp 11 – Room 239 F (Q3 – Exp 3)
Thursday	June 22, 2023	Exp 6 – Room 233 F (Q4 – Exp 11)	Exp 8 – Room 232
Friday	June 23, 2023		
Monday	June 26, 2023	Exp 4 – Room 239 F	Exp 6 – Room 233 F (Q4 – Exp 11)
Tuesday	June 27, 2023	Exp 5 – Room 232 F (Q5 – Exp 6)	Exp 4 – Room 239
Wednesday	June 28, 2023	Exp 12 – Room 231 F	Exp 5 – Room 232 F (Q5 – Exp 6)
Thursday	June 29, 2023		Exp 12 – Room 231
Friday	June 30, 2023		
Monday	July 3, 2023		
Tuesday	July 4, 2023	<u>Independence Day - No Laboratory Meetings</u>	<u>Independence Day - No Laboratory Meetings</u>
Tuesday	July 5, 2023	Laboratory Final Examination – Room 239 F	Laboratory Final Examination – Room 232 F

You will only meet in the classroom on the day when activities are scheduled.