

The University of Texas at Tyler Syllabus

Fall - 2022

College Physics II Lab 1102.001

Instructor: Jonathan Belew

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Office: RBS 3013

Office Hours:

M 9 - 10 : 30 a m ,

W 2 - 4 p m ,

F 10 - 11 : 30 a m

Section: .001

Class Room: RBN 4034

Time: Tue 1-4pm

Course Topics: Basic experiments involving electricity, magnetism, sound, and light are carried out by majors other than chemistry, computer science, and engineering. Students may not receive credit for both PHYS 1102 and PHYS 2126. Satisfies 1 hour of the STEM core requirements.

Text: No Textbook required for this course.

Technology: You will need a webcam, speakers, microphone, and running ChromeOS, macOS, or Windows 10.

Corequisite: PHYS 1302 College Physics II

Make-up: No late work will be accepted without explicit permission. If you have an excused absence you must make up the work before the due date.

Labs: Each lab period will generally consist of a lecture, a worksheet or an experiment.

Grading: The grade breakdown is

Labs	70%
Project	30%

Your grade will be determined using the following scale: A(90%-100%), B(80%-89%), C(70%-79%), D(60%-69%),F(<60%).

Submitting Work:

1. All labs will be submitted in an appropriate file type through Canvas. The accepted file types may be seen on Canvas.
2. The project paper and presentation file will also be submitted through Canvas in the appropriate file type.

Census Date is January 24th.

Last Day to withdraw from a course is March 28th.

Format for showing work:

1. Must show a sample calculation for each calculation needed *for each section on worksheet*.
 - a. Show the relevant equation in symbolic form (no numbers plugged in yet).
 - b. Show the equation, still in symbolic form, solved for the variable of interest.
 - c. Show NUMBERS AND UNITS plugged into the equation.
 - d. Show the numerical result, including units. Box the answer.
 - e. Write numerical answer with units on worksheet.

Classroom Policies:

1. Bring a laptop everyday ideally. If you need to only bring a tablet or phone that may get you by. I would make sure to bring USB drives/SD cards/etc.
2. **Silence your cell phones before class starts.** It's the professional thing to do these days! Only one warning will be issued. If expecting a call, please let me know before lab that you will may have to step out of lab. Otherwise, you will be dismissed from that lab and given a 0 for that lab's grade. (For the lab and participation grade.)
3. Please eat before lab as they can be a long duration. Drinks with lids are acceptable.

Date (Week of)	Lab
January 10 th	No Labs
January 17 th	Speed of Sound
January 24 th	Standing Waves
January 31 st	Buoyant Force
February 7 th	Project Assignment/Work Day
February 14 th	Reflection and Refraction
February 21 st	Image Formation
February 28 th	Electric Field
March 7 th	Spring Break
March 14 th	Adding Resistors
March 21 st	Ohm's Law
March 28 th	RC Circuit
April 4 th	Magnetic Field
April 11 th	Faraday's Law
April 18 th	Project Presentations
April 25 th	Finals-No Lab
Lab Dates Subject to Change Upon Instructor Discretion	

Communication Policy:

All students are required to check their Canvas and university email (Patriot) accounts frequently for information and notifications that might need to be sent out between lab sessions. You will be held responsible for acting in accordance with all such communications.

- **Information for Classrooms and Laboratories:** Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its [Honor Code \(Links to an external site.\)](#) and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, digestive issues (e.g. nausea, diarrhea), or a higher than normal temperature should stay at home and are encouraged to use the [UT Tyler COVID-19 Information and Procedures \(Links to an external site.\)](#) website to review protocols, check symptoms, and report possible exposure. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Course Objectives/Student Learning Outcomes

1. Critical Thinking Skills (includes creative thinking, innovation, inquiry and analysis, evaluation and synthesis of information)

The student will demonstrate their critical thinking skills by analyzing collected data and comparing their calculations to theoretical predictions. This Student Learning Outcome (SLO) will be assessed on the analysis part of their lab reports.

2. Communication Skills (includes effective development, interpretation and expression of ideas through written, oral, and visual communication)

THIS STATEMENT ALSO MEANS TO PROVE YOUR WORK FROM START TO FINISH MAKING SENSE MATHEMATICALLY. (NO SKIPPING STEPS). YOUR WORK MUST BE THOROUGH! ALL EQUATIONS MUST BE STATED IN THE BEGINNING OF YOUR WORK. UNITS MUST BE CARRIED THROUGHOUT THE ENTIRE CALCULATION. AND MOST IMPORTANTLY, IT MUST BE NEATLY WRITTEN.

The student will communicate an understanding of the physics principles discussed in class on free response essay questions. The questions will require the student to express a qualitative understanding through written communication of the physics concepts covered in class. This SLO will be assessed on the question section of their lab report.

3. Empirical and Quantitative Skills (includes the manipulation and analysis of numerical data or observable facts and results in informed conclusions) The student will demonstrate the ability to collect empirical data on a physical system. This SLO will be assessed on the data section of their lab report.

(e.g. understanding trig identities with appropriate references working with axes and planes, using mathematical principles to explore motion, # of unknowns = # of equations, etc...)

4. Teamwork (includes the ability to consider different points of view and to work effectively with others to support a shared purpose or goal)

The student will demonstrate teamwork by working on a group project. Teams will assess the actual teamwork through peer review at the end of the project. A portion of the grade will be from each member's participation based on the peer evaluations.

Online Physics Resources:

1. <http://www.masteringphysics.com/site/index.html>
2. <http://lightandmatter.com/>
3. <http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html>
4. <http://www.physicsclassroom.com/>
5. <http://ocw.mit.edu/courses/physics/8-01t-physics-i-fall-2004/lecture-notes/>
6. <http://ocw.mit.edu/courses/physics/>
7. <http://www.splung.com/>
8. <http://www.phyfun.com/>
9. <http://www.walter-fendt.de/ph14e/>
10. <http://www.falstad.com/mathphysics.html>
11. <http://physics.merlot.org/>
12. http://www.edinformatics.com/il/il_physics.htm
13. http://galileo.phys.virginia.edu/classes/109N/more_stuff/Applets/home.html
14. <http://webphysics.davidson.edu/Applets/Applets.html>