The University of Texas at Tyler
Syllabus
Spring 2024
Physics 2125 Section 2

Instructor: Dr. Randy Back
Classroom: RBN 4034
Class Time: Wednesday 1-4
Email: rback@uttyler.edu
Office: RBN 4047
Phone: (903) 565-5797
Office Hours: MWF 10-11 and 12:10-1 or by appointment. You should feel free to stop by my office any time. If I am available, I will be happy to help you.
Course Topics: This course is designed to give students hands on experience that will complement the principles and concepts covered in lecture. Major topics covered will include Kinematics, Forces, Energy, Momentum and Rotational motion
Text: No Textbook required
Co-requisite: PHYS 2325
Labs: We will do a lab each week. The labs will be on Canvas. The lab report will be due before the next lab. You will turn the labs in on Canvas. If you are late to lab you will have to complete the lab on your own, time permitting.
Make-up: No late work will be accepted. If you have an excused absence you must make up the work before the due date.
Grading: Each lab report will be worth a maximum of 30 points. At the end of the semester there will be a lab project due. More details on the project will be provided in class. The project will be worth a total of 60 points. At the end of the semester all of your points will be totaled and divided by the maximum possible. A(90%-100%), B(80%-89%), C(70%-79%), D(60%-69%),F(<60%).
A complete description of university policies and procedures is listed on the canvas page for this course

The Census day is September 9
Last Day to withdraw from a course is November 4

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 MEANS TO PROVE YOUR WORK FROM START TO FINISH MAKING SENSE MATHEMATICALLY. (NO SKIPPING STEPS). YOUR WORK MUST BE THOROUGH AND 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.
4. Teamwork (includes the ability to consider different points of view and to work effectively with others to support a shared purpose or goal). This will be assessed by the instructor, based on the students' participation in the group. **If the student is late and/or not actively engaged in the experiment points will be deducted from the lab grade.**

Lab 1- Sept. 4 Measurement and Error
Lab 2- Sept. 11 Motion
Lab 3- Sept. 18 Runaway Cart
Lab 4- Sept. 25 Vector Decomposition
Lab 5- Oct. 2 Friction
Lab 6- Oct. 9 Force Tutorial
Lab 7- Oct. 16 Equilibrium
Lab 8- Oct. 23 Work and Energy Tutorial
Lab 9- Oct. 30 Conservation of Energy
Lab 10- Nov. 6 Conservation of Momentum
Lab 11- Nov. 13 Static Equilibrium
Lab Project Nov. 20
Make-up Lab Dec. 4

The University of Texas at Tyler
University Physics I Lab
PHYS 2125 Section 1
Fall 2024
RBN 4032
T 1:30 – 4:30

Instructor	Dr. Richard Batman, Ph.D.
Office	RBN 4045
Phone	(903) 566-7477 (I prefer email to phone calls.)
Email	rbatman@uttyler.edu **(Never attempt to contact me through the Canvas system. You must send emails directly to rbatman@uttyler.edu. Please include the course and section number 2125.001 in the body of each email.)**
Office Hours	My office hours this semester are tentatively planned for: MWF 9:45 AM – 10:45 AM T 12:15 PM – 1:15 PM R 3:00 PM – 4:00 PM (**Or by appointment.** Times are approximate. Please stop by my office anytime you have questions, even outside of office hours**.** I'll almost certainly be available to help.)
Co-requisite	University Physics I Lecture, PHYS 2325

Course Topics

This course is designed to give students hands-on experience that will complement the principles and concepts covered in lecture. Major topics covered will include kinematics, Newton's laws, energy, and momentum.

Important COVID-19 Information for Classrooms and Laboratories

It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure (CDC quarantine/isolation guidelines). Please work with your faculty members to maintain coursework and please consult existing campus resources for support.

Attendance Policy

Attendance will be taken at the beginning of each lab session. If you are more than five minutes late to lab, 10% will be deducted from your score for whatever worksheet(s) you submit based on that day's activities. **It is the tardy student's responsibility to make sure that he/she is marked present for the lab before leaving the laboratory. If you arrive more than thirty minutes late to the lab, you may not be allowed to participate in that day's activity or receive credit for the corresponding worksheet(s).**

Communication Policy

All students are required to frequently check the announcements on the Canvas website for information and notifications that might need to be posted between class sessions. You will be held responsible for acting in accordance with all such communications.

Make-Ups for Missed Labs

1. Make-ups for lab assignments are generally allowed **for excused absences only**. **I cannot guarantee in advance that a make-up will be allowed in a particular situation. Do not assume, without first discussing the circumstances with me, that your absence will be excused.** For anticipated absences, you must make arrangements as soon as possible to complete the lab assignment **prior to the absence**. For unanticipated excused absences in which a lab assignment is missed, it is your responsibility to arrange a make-up for the assignment. I will not remind you. **Failing to send me *by email* a notification and detailed description of your situation, along with a request for a make-up, within one week after a missed assignment is grounds for denying the make-up. Please send the notification ASAP.**
2. **It is your responsibility to check your grades on Canvas frequently throughout the semester and to notify me immediately if there are any errors** (incorrect point values, missing grades, etc.) in the grade book. **After semester grades have been submitted for the course, no corrections will be made without documentary proof of the error. No assignments of any kind will be accepted or made up on or after the day that grades are due for the end of the semester**.

Graded Work and Assessments

1. Whenever possible, all work must be shown in any worksheet calculation.
2. At the end of the semester, each student will have to complete a project. More details will be provided in class. The project will all together be worth 25% of the overall course grade.
3. In every worksheet based on experimental activities, data must be reported clearly, in tabular form, **with units**. In some cases, uncertainties, **also with units**, must be reported as well. You must show at least one sample calculation **with units** for each different type of calculation you perform in your data analysis. Each graph must have axis labels **with units**. Every question that is asked in the lab worksheet must be answered in detail and in complete sentences. When listing sources of error, at least two must be provided; they must be errors that are inherent in the experimental

technique and not easily avoided; and you must explain specifically (when possible) how you would expect each source of error to affect your result.

Grading Scale

A	90-100%
B	80-90%
C	70-80%
D	60-70%
F	<60%

Semester Assessment

Worksheets	75%
Final Project	25%

Tentative Semester Schedule

Week 1	**Aug 27**: **No lab**
Week 2	**Sept 3:** Measurement and Error
Week 3	**Sept 10**: Motion Graphs
Week 4	**Sept 17**: Vector Decomposition
Week 5	**Sept 24**: Runaway Cart
Week 6	**Oct 1**: Friction
Week 7	**Oct 8**: Force tutorial
Week 8	**Oct 15**: Equilibrium
Week 9	**Oct 22**: Work-Energy tutorial
Week 10	**Oct 29**: Conservation of Energy
Week 11	**Nov 5**: Conservation of Momentum
Week 12	**Nov 12**: Static Equilibrium
Week 13	**Nov 19**: **Trebuchet tests**
Week 14	**Nov 26**: **No lab for Thanksgiving**
Week 15	**Dec 3**: **Make-up week**
Week 16	**Dec 10**: **No lab**

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 Cynthia Lowery, 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.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

i. "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and

- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by plagiarism software.

Artificial Intelligence Statement

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

The work submitted by students in this course will be generated by themselves. This includes all items in all exams (including the final exam), all quizzes, and all homework assignments. Any instance of the following constitutes a violation of UT Tyler's Honor Code: a student has another person/entity do any portion of a graded assignment, which includes purchasing work from a company, hiring a person or company to complete an assignment or exam, using a previously submitted assignment and/or using AI tools (such as ChatGPT).

UT Tyler Resources for Students

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254)

Please also see "University Policies and Information" in the UT Tyler Syllabus module in Canvas.

The census date, which is the last day to drop without a W, is Monday, September 9.

Please do not offer me any gifts, because I am not allowed to accept them.

Course Objectives/Student Learning Outcomes

1. Communication Skills (includes effective development, interpretation and expression of ideas through written, oral and visual communication)
   The student will communicate an understanding of the physics principles discussed in class by verbally explaining their solution to a physics problem.

2. 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 with a lab partner.