# THE UNIVERSITY OF TEXAS AT BROWNSVILLE AND TEXAS SOUTHMOST COLLEGE

# PHYS 2125: University Physics I and Laboratory FALL 2011 PRELIMINARY COURSE SYLLABUS

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**UNIVERSITY POLICIES** 

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Office Hours:

Phone:

(956) 882-6537 Mon 9am-10am

Tue 3pm-4pm Wed 9am-11am Thu 3pm-4pm

Contact Methods:

You may contact me using any of the information shown above. Please feel free to reach me if you have any questions regarding content, if you need clarification or assistance.

#### **COURSE DESCRIPTION [TOP]**

## **Pedagogical Approach**

You will be expected to learn the principles from the book. If you have any questions about the book's presentation you should ask them in class (or during office hours, or by email, or ...), and I will try to answer them. In class there will be a quick recall of principles. Most of the time in class we will do examples and solve problems. These may be examples/problems directly from the book, or that I find elsewhere, or that I create. Most in-class problems will be similar to homework and exam problems.

# **Curriculum Coverage**

The initial plan is to cover Chaps. 1 through 14 with the exception of Chapter 9. Not every section will be covered equally, so pay careful attention to the reading assignment at the course website.

#### **Tutorial**

In the past years weekly tutorial sessions have been planned and this year we will try to have the same although it is not sure at the moment. If you feel unsure of your grasp of some or all of the material, or if you simply want to learn the material more deeply, you should consider going to the tutorial sessions. The schedule for the tutorials will be announced in class.

#### Homework

Homework is the most important element in this course (and in many other courses). If you put little effort in the homework it is very unlikely that you will do well in the course. If you diligently do the homework, it is likely you will do well. If you do additional problem solving beyond the homework, the probability that you will do well increases.

You will do homework using WebAssign. Instructions for registering for WebAssign are given below, and will be discussed in class.

You will solve the WebAssign problems online, and will be graded automatically. You will not hand these problems in on paper; you must do them online. Each problem is worth a different number of points, depending on its length and difficulty. You will have three chances to type in solutions to each part of each problem. You get full credit if you get it right on the first try. You get 85% if you get it on the second try. You get 65% if you get it on the third try. To encourage you not to delay homework till the last moment, there is a 10% bonus for handing in WebAssign assignments more than 24 hours early. Although the WebAssign Student guide (and the Introduction to WebAssign assignment) will tell you that the acceptable tolerance in your answer will be 1%, in our class heartbreak will be minimized by using a 5% tolerance in most problems.

There is homework due almost every week: please look at the section Calendar below. Assignment 1 is a very short simple assignment The purpose of this assignment is to force you to register with WebAssign, and to become familiar with it. The Assignment due dates are indicated on the course calendar that is linked to this page, and are also indicated on the WebAssign pages.



No late homework will be accepted.

It is worth noting that the exams will be like the homework. Many of the exam problems, in fact, will be minor modifications of the homework problems.

You are not prohibited from working with other students on homework. Quite the contrary, students are encouraged to work together. But the work you hand in must be your own work, not a solution given to you by someone else. In other words, it is acceptable for you to get the ideas for the solution from another, but not the words and symbols. The following criterion can help you distinguish between acceptable and unacceptable collaboration on the homework: in an oral exam, could you explain and defend your solution? In fact, students may occasionally be called to the board to explain and defend the homework that they have handed in.

## WebAssign

To register with WebAssign you can click here, or direct your browser to https://www.webassign.net/login.html. Your username is lastname.firstname, your last name and first name separated by a period. Thus if your name is Albert W. X. Einstein Jr. III, your username would be einstein.albert, without the middle initials, or "Jr.", or "III".

On the website, ignore the lines "Username," "Institution," and "Password." In the lower half of the page, there is a red framed box with the picture of a key, and a red banner that reads "I have a class key." Click on this red banner. This will take you to a page in which you are to enter your "Class Key" in the three boxes; the Class Key will be provided through email and on the first day of class. The website will then check that you are registering for the correct course, and will take you to a page on which you fill out your user name (according to the instructions above), and on which you choose your password. You can then log in and start the assignment.

It costs \$37 to register with WebAssign. You can consider this to be part of the textbook purchase. (WebAssign could have been bundled with your textbook at the same cost; the way we are doing it allows you to purchase used textbooks.) You will need to use a credit card to register with WebAssign. You may defer paying by using the WebAssign "grace period" of approximately 2 weeks. During this time you will be allowed to use WebAssign without paying for it. But at the end of that time, if you have not paid, all your work will be deleted. Do not wait till the last moment to pay; you may discover that you have waited past the last moment. You will not receive any readjustment of your homework grade if this happens; it will be considered to be your fault.

After you have registered you should read (or at least skim through) the student guide. After that you should get some experience with the WebAssign conventions by going through the assignment "Assignment 0" that is in the assignment space for the course on WebAssign (though there is no credit for this assignment). After that, you should do homework Assignment 1.

In addition to the problems from the textbook, there will be essay questions on the homework, and similar essay questions on the exams. These questions will be graded by the instructor or TA, not by a computer program. Your answer will be graded both for technical correctness and for clarity. These questions are to be answered with complete, coherent sentences. For these essay questions, the reduction in credit for the 2nd and 3rd "try" does not apply, but you are allowed to change your answer only twice.

On the essay questions, 60% of the grade will be for technical content. That is: did you get the physics right; 40% will be for clarity of your explanation. Grammar, spelling, etc. will be part of the grade if they affect the readability of your answer. Many of the essay questions will ask you to explain something. You must understand that "explain" is not the same as "reword."

You can get a "Student Quick Start" guide, or a "WebAssign Student Guide" from the WebAssign site. Click on "help" (upper right corner), then click on the "Documents" tab.

I will be assigning some problems requiring symbolic answers. To give symbolic answers you can use WebAssign symbolic formatting. The problems will have a link to a concise reminder of how to do symbolic formatting.

## **PhysicsNow**

If you purchased your textbook new, you will have access to PhysicsNow, an on-line system of ancillary material. Because not all students purchased their textbooks new, we will not be using PhysicsNow directly. If you do have access to PhysicsNow, and you like computer aids, you might consider looking at the Active Figures. (Click on the icon of the textbook, then click on a chapter. At this point you'll be in "Study Tools." On the left side of the browser window, under "WHAT DO I NEED TO STUDY?" you will find the Active Figures.) If you find that that the Active Figures or other elements of PhysicsNow are useful, or if you think they are a waste of



time, please let me know.

#### Quizzes

There will be short quizzes at the start of most classes. These quizzes will always be based on the reading assigned for the class on the day of the quiz, or on recent reading assignments. The quizzes are designed to coerce you to do the assigned reading.

#### **Exams**

There will be no make up exams.

There will be three midterm exams and a final exam. The final exam will be in the regular classroom on Tuesday, December 6<sup>th</sup> from 2:00pm to 4:30pm. See the calendar below for the dates of the midterm exams.

There will be no make up exams.

Most of the exam problems will be of the same type as those on the homework, and those solved in class. Some exam problems will be minor modifications of homework problems. There will be no make up exams, but your lowest preliminary exam score (relative to the class) will be dropped. If you miss an exam for any reason, that will be your lowest exam. Other rules and procedures for the exams will be decided and discussed later. But one rule is already firm: there will be no make up exams.

#### Calendar

Section PHYS 2325-02 13:40 - 14:55				
	Tue		Thu	
AUG	23		25	
	30	Assignment # 1 due	1	
SEPT	6	Assignment # 2 due	8	
	13	Assignment # 3 due	15	
	20	Assignment # 4 due	22	
	27	First Midterm	29	
ОСТ	4		6	Assignment # 5 due
	11		13	Assignment # 6 due
	18		20	Assignment # 7 due
	25	Second Midterm	27	
NOV	1		3	Assignment # 9 due
	8		10	Assignment # 10 due
	15		17	Assignment # 11 due
	22		24	Thanksgiving
	29	Assignment # 12 due	1	Third Midterm
DEC	6	Final Exam 2pm-4:30pm		

Dead line to withdraw without any recorder grade: Sep 7

Dead line to withdraw with a "W": Oct 28

# Communications

Electronic mail communication will be important. Announcements, changes in assignment, hints, etc. will often be sent by email. My email address is at the top of this page. You are responsible for being certain that the UTB system has your correct email address. You will be responsible for checking your email frequently and for checking the course website for assignments and announcements.

Electronic mail makes it possible for you to get rapid answers to your questions. I am rarely away from email, and I will give high



priority to answering student questions. But you must make the question clear. If I am not sure of what you are asking I won't give an answer. An answer to a misunderstood question can create complete confusion. Therefore, if I do not understand your question I will tell you that I don't understand it, or I am not sufficiently sure of what you are asking.

I will also communicate to you through the course website. The website will contain homework assignments. Notification (e.g., an error in an assignment) will be done through email and, where appropriate, through the course website.

#### STUDENT LEARNING OUTCOMES [TOP]

A student who is successful in this course will have mastered the principles of classical mechanics, including Newton's laws, conservation laws (momentum, angular momentum, energy). The student will understand vector methods in kinematics and dynamics, and will be able to solve introductory mechanics problems including those involving calculus.

## TEXTBOOK(S) & OTHER RESOURCES [TOP]

Principles of Physics, a calculus-based text, 4th ed. THOMSON BROOKS/COLE, by Serway & Jewett

For text book pricing information use your course and section number or text ISBN in the UTB/TSC bookstore at http://utb.bncollege.com/

### **EVALUATION/ASSESSMENT** [TOP]

The basis for your grade will be a weighted average of the following elements: Homework 30 points; Midterm exams 20 points for each of two; Final exam 30 points; Quizzes 15 points. Each student's grade in the course will be computed according to the following scheme: (i) For each grading element (HW, each exam, quizzes) your grade will be divided by the class average. (ii) Those numbers will then be added together with the weightings stated above. The result will then be a number -- a grade index -- for each student. That grade index, and only that grade index, will be used to determine which students get A, which get B, and so forth. The number of A's, of B's, etc. will be based partially on the traditional grade distribution in this course, and partially on how well the class does compared to absolute standards.

You are responsible for understanding the basis for grading and the rules of the course. There will be no sympathy for claims, for example, that you did not know the rules covering late homework. If you have any questions about grading, ask them at the start of the course.

## **GRADING POLICY [TOP]**

Grade A = 85% and above

Grade B = 70% to 85%

Grade C = 60% to 70%

Grade D = 45% to 60%

Grade F = below 45%

# ABSENCES AND MAKE-UP WORK [TOP]

Attendance is mandatory. No make-up exams are provided.

**UNIVERSITY POLICIES [TOP]** 

## **Satisfactory Academic Progress (SAP)**

UTB/TSC monitors academic progress every fall and spring semester to identify those students who are experiencing difficulty with their courses. Satisfactory Academic Progress (SAP) is based upon two components: GPA of 2.0 or higher and successful course completion of at least 70% of course work attempted. Students remain in good standing with the university and Financial Aid when both criteria are met. Students who do not maintain these required minimum standards will be placed on probation or suspension as appropriate. The complete Satisfactory Academic Progress policy and the Undergraduate Satisfactory Academic Progress for Financial Aid policy can be found in the current Undergraduate Catalog. For more information, please visit <a href="http://www.utb.edu/vpaa/sap/Pages/Home.aspx">http://www.utb.edu/vpaa/sap/Pages/Home.aspx</a>

# **Scholastic Dishonesty**

Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, 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. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. (Board of Regents Rules and Regulations)

All scholastic dishonesty incidents will be reported to the Dean of Students. Do not allow your peers to pressure you to cheat. Your grade, academic standing and personal reputation are at stake. For a brief informative video on cheating and its consequences click on "Academic Integrity at UTB/TSC" at this link: http://www.utb.edu/sa/judicial/Pages/academicIntegrity.aspx

## Student's Academic Responsibilities

Students are expected to be diligent in their studies and attend class regularly and on time. Students are responsible for all class work and assignments. On recommendation of the instructor concerned and with the approval of the Dean, students may, at any time, be dropped from courses. This may result in a "W" or "F" on the student's permanent record.

## **Emergency Policy Statement**

In compliance with the Emergency UTB/TSC Academic Continuity Program, academic courses, partially or entirely, will be made available on the MyUTBTSC Blackboard course management system. This allows faculty members and students to continue their teaching and learning via MyUTBTSC Blackboard <a href="http://myutbtsc.blackboard.com">http://myutbtsc.blackboard.com</a>, in case the university shuts down as a result of a hurricane or any other natural disaster.

The university will use MyUTBTSC Blackboard to post announcements notifying faculty members and students of their responsibilities as a hurricane approaches our region. If the university is forced to shut down, faculty will notify their course(s). To receive credit for a course, it is the student's responsibility to complete all the requirements for that course. Failure to access course materials once reasonably possible can result in a reduction of your overall grade in the class.

To facilitate the completion of class, most or all of the communication between students and the institution, the instructor, and fellow classmates will take place using the features in your MyUTBTSC Blackboard and UTB email system. Therefore, all students must use Scorpion Online to provide a current email address. Students may update their email address by following the link titled "Validate your e-Mail Account" in MyUTBTSC Blackboard Portal. In the event of a disaster, that disrupts normal operations, all students and faculty must make every effort to access an internet-enabled computer as often as possible to continue the learning process.

## **Emergency Notification System**

UTB/TSC has implemented an emergency communication system to provide students, faculty, staff and visitors with important information in the event of an impending threat. This system allows UTB/TSC to send time sensitive notifications via telephones, computers, indoor speakers in classrooms and laboratories, outside speakers, e-mail messages, and announcements on the University's home page: www.utb.edu. The notification methods used will vary depending on the level of the emergency. Messages will communicate the current situation and provide guidance for what action needs to be taken immediately.

# Americans with Disabilities Act (ADA)

Students with disabilities, including learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide documentation of his/her disability to the Disability Services counselor. For more information, visit Disability Services in the Lightner Center, call 956-882-7374 or e-mail steve.wilder@utb.edu.

