Name of Class: PHYS 1310 Elementary Physics I

Instructor: H.C. Galloway

Department: Physics

Degree: 
Degree Program Requirement: YES NO

<table>
<thead>
<tr>
<th>1. Course Description</th>
<th>A non-mathematical survey of mechanics, properties of matter, heat and sound. These topics are described in a conceptual way with applications relating to the world around us.</th>
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</thead>
</table>
| 2. Course Objectives  | - Relate physics to your own environment, including your own background experiences and cultural identification.  
                           - Understand and identify physical principles and quantities such as motion, force, acceleration, velocity, work, and energy.  
                           - Identify heat transfer and its relationship to energy.  
                           - Understand the physical properties of matter.  
                           - Develop problem solving skills to evaluate physics problems relating to everyday situations |
| 3. Course Content     | LEVEL TWO: X LEVEL THREE: (Check one. Explain.)  
                           I encourage students to investigate their attitudes and personal experiences about the physical world. Examples will be drawn from a wide variety of experiences and presented using a wide variety of pictures and graphics to give students a sense that all of them can learn and use physical theories to understand their world. We will also directly discuss why this particular view of scientific endeavors and theories is used and historically why the viewpoints found in physics are mostly European and male. |
| 4. Instructional Strategies | LEVEL TWO: X LEVEL THREE: (Check one. Explain.)  
                           Students are given an opportunity to discuss in small groups and to engage instructor in discussion. Homework is on an interactive website and class communication is carried out through both electronic and verbal access. Students use inquiry type worksheets and exercises to build up concepts and work with peers to assess their level of knowledge. |
| 5. Assessment of Student Knowledge | LEVEL TWO: X LEVEL THREE: (Check one. Explain.)  
                           Standard exams comprise a significant component of the grading, but exam questions will be a variety of short answer and essay type questions rather than solely multiple choice. Homework is online and multiple choice and numerical problems provide instant feedback. Essay questions will be graded daily. In class group work will also count towards a grade and will be graded weekly on a participation basis. |
| 6. Classroom Interactions | LEVEL TWO: X LEVEL THREE: (Check one. Explain.)  
                           Students will daily work in groups. I will allow the students to choose their |
own groups and will also assign groups to ensure students work with a more diverse set of groups. Some assignments will allow students to bring examples from their own lives to share with others.

| 7. Course Evaluation | Standard course evaluation. I am proposing to physics department that we add questions about multicultural perspectives to our course evaluation. |

Percentage of Multicultural Content: 5-10%

**Multicultural Classification:**
MC = multicultural designation: classes with 60% of the content multicultural
MP = multicultural perspective: classes using a variety of strategies to encourage multiculturalism, including content, instructional strategies, assessment, and classroom dynamics

Choose the multicultural classification that describes this class: MP

Does this class focus incorporate global diversity or U.S. diversity or a combination of both? Explain.

Examples used in course are taken from both US and global diversity. Multicultural perspectives are primarily targeting US diversity.
PHY 1310 - Elementary Physics - Summer I 2005

Instructor: Dr. Heather Galloway
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(note: e-mail is checked more frequently than phone messages)
Website: http://uweb.txstate.edu/~hg02/
Course: http://uweb.txstate.edu/~hg02/1310.html
Office hours: MTWTh 9-10 AM or by appointment

Textbook: Conceptual Physics, 9th Edition, Paul G. Hewitt, Addison Wesley (ISBN 0-321-05202-1) Previous editions of the textbook may be used as your homework assignment will be on web assign. However, you will be responsible for figuring out which sections correspond for reading assignments.

Course description: A non-mathematical survey of mechanics, properties of matter, heat and sound. These topics are described in a conceptual way with applications relating to the world around us.

Educational Beliefs - Physics is a description of the way the world works. It affects all of us whether we think about it or not. By learning to actively use the ideas of classical physics, students should be able to more accurately describe and predict the physical world. Although physics is considered a difficult subject, I believe that all students are capable of learning the material if they actively engage the content and break the task down into small enough steps. To encourage this type of learning, I will provide opportunities in class for group work and activities. Please remain on task during these activities. At the end of group work time, I will lead a discussion to help us all summarize.

Course objectives:
- Relate physics to your own environment, including your own background experiences and cultural identification.
- Understand and identify physical principles and quantities such as motion, force, acceleration, velocity, work, and energy.
- Identify heat transfer and its relationship to energy.
- Understand the physical properties of matter.
- Develop problem solving skills to evaluate physics problems relating to everyday situations

Grading:
Semester Exams 50%
Final Exam 20%
Homework (webassign) 20%
Physics Journal 10%
A=90-100, B=80-89.9, C=70-79.9, D=65-69.9, F<65

Homework - Assignments will be due approximately daily at midnight on web assign, an online homework service. Approximately two homework assignments will be dropped. This will cover problems such as internet access, computer issues, or other emergencies. No extensions will be granted. Homework will be completed using the internet service, WebAssign, but is taken from problems out of your textbook.

Your username for web assign is your user ID from computing services. For example, Xavier Quintano’s user ID might be something like XQ1234. The institution is txstate (lowercase). Your password is your Texas State student number printed on your ID (six digit number). You should change your password to something else.

You must go to the bookstore and purchase a WebAssign card or pay online to have access to this service. You need to use your Texas State e-mail for correspondence. The URL for WebAssign is http://www.webassign.net/ and the student login page should be bookmarked as http://webassign.net/student.html.

Physics Journal - This will consist of approximately daily assignments. Each day I will post what material should be in your journal on the class website. Please put these materials into a braded folder or a report cover. Journals will be turned in each Friday. I will grade them during the exam and you can pick them up after the exam.

Semester Exams - There will be 4 exams during the semester covering material from lectures and material in the text. These exams will be every Friday during the semester (6/10, 6/17, 6/24 and 7/1) except the last week where there is a final. No makeup exams. The exam will be given during the second half of the class period and will take approximately 50 minutes. Exams will be short answer and problems type questions similar to your homework assignments.

Comprehensive Final - The final exam for this class is July 8, 2005 from 10:30 AM until 12:30 PM and will cover material from the entire semester. Your final will replace your lowest semester exam grade and will serve as your makeup exam if you have missed an exam for any reason.

Drop/Withdrawal - You may drop a class until June 10, 2005 with an automatic “W”. After that time, you may receive an “F” or a “W” if you drop the course. I will give a grade of "W" if you drop no later than one day after the first exams are graded but you must come by and discuss it with me. The final deadline to drop a class is on June 30, 2005.

Attendance Policy – Attendance will not be taken. However, in class work will be part of your physics journal and you will be responsible for completing any tasks you miss or getting notes from another student for any classes you miss. Some class information will be posted online, but beyond those materials, I will not provide class notes.

Disability Support Services - Texas State University seeks to provide reasonable accommodations for all qualified individuals with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations and
guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to register with Disability Support Services and to contact the faculty member by the third day of class for a previously identified disability to arrange appropriate accommodations.

Academic Honesty Policy - Learning and teaching take place best in an atmosphere of intellectual fair-minded openness. All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. Plagiarism and other forms of academic dishonesty undermine the very purpose of the university and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in Texas State Student Handbook.

Tentative Schedule – items underlined are to be included as part of your physics journal

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<thead>
<tr>
<th>Date</th>
<th>Topic/Activities</th>
<th>Homework</th>
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</thead>
<tbody>
<tr>
<td>6/6</td>
<td>Ch. 1 – syllabus, nature of science, course policies, physics ice breaker, force concept map</td>
<td>HW 1 (optional) due Read Ch. 2</td>
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</tbody>
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