GENERAL PHYSICS 1401

LECTURE: Section S02 meets MWF from 11:00-11:50 AM in I128

TEXT: College Physics by Wilson 6th or 7th editions.

LAB MANUAL: Physics 1401 Laboratory Experiments by Wilson 7th Ed.

STUDY GUIDE: To accompany text is optional

INSTRUCTOR: Dr. Mike Broyles, Office is J139 and tel: (972) 881-5882
Email: mbroyles@collin.edu
See Professor’s websites (use cougar email)
Text website: www.prenhall.com/wilson,
Office hrs: MWF 10:00 PM-10:50 AM, TR 11:30 AM-12:30 PM, or by appointment.

SPRING 2010 CALENDAR

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ch 1</td>
<td>Units and Problem Solving</td>
</tr>
<tr>
<td>2</td>
<td>Ch 2</td>
<td>Kinematics: The Description of Motion</td>
</tr>
<tr>
<td>3</td>
<td>Ch 2,3</td>
<td>Motion in Two Dimensions</td>
</tr>
<tr>
<td>4</td>
<td>Ch 3,4</td>
<td>Force and Motion</td>
</tr>
<tr>
<td>5</td>
<td>Ch 4</td>
<td>Force and Motion</td>
</tr>
<tr>
<td>6</td>
<td>Ch 4,5</td>
<td>Work and Energy</td>
</tr>
<tr>
<td>7</td>
<td>Ch 5,6</td>
<td>Work and Energy</td>
</tr>
<tr>
<td>8</td>
<td>Ch 6</td>
<td>Momentum and Collisions</td>
</tr>
<tr>
<td>9</td>
<td>Ch 7</td>
<td>Circular Motion and Gravitation</td>
</tr>
<tr>
<td>10</td>
<td>Ch 8</td>
<td>Rotational Motion and Equilibrium</td>
</tr>
<tr>
<td>11</td>
<td>Ch 9</td>
<td>Solids and Fluids</td>
</tr>
<tr>
<td>12</td>
<td>Ch 10,11</td>
<td>Temperature and Heat</td>
</tr>
<tr>
<td>13</td>
<td>Ch 12</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>14</td>
<td>Ch 13</td>
<td>Vibrations and Waves</td>
</tr>
<tr>
<td>15</td>
<td>Ch 14</td>
<td>Sound</td>
</tr>
</tbody>
</table>

TESTS
Tests will count as 70% of the overall class grade.
Tests will be given in class at about-two week intervals. These exams will consist of about 20 M/C questions and 2-4 problems similar to the ones worked in class and assigned as homework. These exams will take approximately 30 minutes. The lowest score on any of these exams will be dropped in the averaging. In class exams will be equally weighted in the overall test average. You must take these in-class exams on or before the date that these exams are actually given or be subject to penalty deductions. In no case will a make-up exam be given if that exam has already been passed back to the class. The Final Exam will count as a normal test average. There will be 5-6 exams during the semester, all tests will be weighted equally.
The Final Exam will cover Chapters 1-14 in class on date of the Final Exam.
M/C + problems with most of emphasis on Chapters 9, 13 and 14.
The Final Exam is scheduled for Wednesday May 12th in class from 11:00 AM-1:00 PM.

ATTENDANCE: Students are expected to attend both the lecture and laboratory sessions. Excessive absences for either or both lecture/lab will result in formal notification.

DROP DATE: The last day to withdraw with a grade of “W” is 3/12/10. Note that a student who wishes to drop a course must initiate this process themselves by completing the proper forms. I cannot drop any student myself.

SUPPLIES: Students need to have the following items: Text books for both the lecture and laboratory, calculator with scientific programming, protractor and metric ruler, suitable graph paper, notebooks, and SCANTRON forms for the exams.

CALCULATION OF FINAL GRADE FOR THE COURSE
1. Your test scores = 70%
   Keep track of your in-class test grades here: ________     ________      _______
   ________    ________
   Final Exam score________

   Multiply by 0.70 (70%) = ____________

2. Laboratory reports and lab = 25%
   I will need to contact your lab instructor at the end of the semester to factor in your lab average. Your average lab grade = ______. Multiply this by 0.25 (25%) and add to the test scores.

3. Homework assignments = 5%
   All homework that is reasonably complete, worked out (not just the answers) and submitted on time. Homework problems are 1 point each. You may hand in one chapter at a time or turn in all the chapters assigned to a unit by the time you take that exam. You may turn in these problems at the next lecture following the exam that you have taken but after that time the work is considered late and will receive deductions. If we have already started grading the homework for the next unit, then it is too late to receive even late credit for the previous unit homework. I must be able to clearly read your problems (please circle your answers) and they must be in the correct numerical order for credit. There are generally 10 homework points per chapter, but sometimes only 5-8 problems per chapter are assigned. Add your total homework points, if all problems are worked then multiply by 0.05 or 5%.

   Extra credit: There will be extra credit opportunities available this semester. Included in this category are:
   1. A research paper or project. If you wish to write a research paper, you will need to cover a topic or application that fits in with the topics dealt with this semester. You may write about a physicist or scientist if he or she is mentioned in a chapter that we cover. If you select a person, then concentrate on their contributions to physics, not so much on their personal lives or trivia. You need to give the instructor a short abstract before you start the paper for
A research paper needs to have the following elements to be accepted:

a. Title page including your name and date
b. Text of main report 4-6 pages-doubled spaced using proper footnotes or references throughout the written text.
c. Bibliography or Works-Cited. These need to be in proper order. Do not select all of your sources from the internet. 4-6 minimum. Use proper research paper format and number all of your work-cited in the main text. If you wish to do a project, then you need to document all of your work using photos if you do not bring in the completed project. You will also need to complete a short 3-5 page paper on the project using a format similar to the research paper. The research paper or project, if accepted, will be averaged with your lowest test grade to give a composite score. If you would rather submit a research paper in lieu of the homework then the paper will count a maximum of 5%. Research papers must be typed or computer generated.

The research paper or project must be submitted to me by 3/5/10 at the latest. You must submit a short abstract of your proposed work well before this date.

2. Extra credit challenge problems will on occasion be given out in class. If completed on time, each will be worth from 1-2 pts each. These points will be added to the homework category making it possible to score more than 5%. You need to get these in by the due dates for credit.

3. If you attend an approved lecture outside of class that covers a topic or application to physics, you may receive up to 10 points per lecture for 2 lectures. These points will be added to the homework category of 5%+

4. Service Learning Project. This is a new category and you can receive extra credit for this. The maximum amount of this credit would be equal to the research paper or project and will depend upon a contract that you work out with the Service Learning Department and the physics instructor. The Service Learning would be a substitute for the research paper or project-you would not receive credit for both categories. Tutoring students in science or math would be a possibility for this category.

ANY ADDITIONAL EXTRA CREDIT WORK MUST BE TURNED IN BY 5/5/10 TO ME PERSONALLY. DO NOT PLACE ASSIGNMENTS UNDER MY OFFICE DOOR.

LATE WORK: PLEASE NOTE THAT ALL LATE WORK IS SUBJECT TO PENALTY DEDUCTIONS. TESTS NOT TAKEN ON TIME ARE SUBJECT TO A MINIMUM 10% DEDUCTION. ONLY THE LAST HOMEWORK FOR WILL BE ACCEPTED DURING FINAL EXAM WEEK. NO PROJECTS OR EXTRA CREDIT WILL BE ACCEPTED AFTER THE DUE DATES.

CHECK WITH ME BEFORE THE END OF THE SEMESTER TO MAKE SURE THAT ALL OF YOUR WORK IS ACCOUNTED FOR. IT WOULD BE A GOOD IDEA TO MAKE COPIES OF EVERYTHING THAT YOU SUBMIT FOR GRADING.

GRADING SCALE
90.0 and above = A
80.0 and above = B
70.0 and above = C
60.0 and above = D
Below 60.0 is not passing
If you experience problems early in the course, please consult the instructor. We can help you in a number of ways. I might suggest working in the Math Lab with a physics tutor. We might be able to find you a private tutor. I might suggest just dropping by my office a few times or seeing me in the Math Lab. Don’t not slack off or get behind, this course moves swiftly and builds on previous math and physics knowledge. Note that we give a math survey exam in the first couple of weeks in the Testing Center or Math Lab which is diagnostic and you should plan on taking. Good Luck!! You can do this course if you apply yourself!

Note: This class like all others at CCCC may be repeated only once. Students are limited to a maximum of 6 withdrawals during their academic career.

Academic Ethics: This course like all others at CCCC will follow the guidelines for academic ethics. We will not accept any work from students that show evidence of copying from another student or material that has a copyright. This applies not only to exams, but also to lab reports and homework assignments.

PLEASE TURN OFF YOUR CELL PHONES WHEN YOU ENTER THIS CLASSROOM. IF YOU ARE EXPECTING AN EMERGENCY CHECK WITH THE INSTRUCTOR BEFORE CLASS. ALSO PLEASE OBTAIN THE CONSENT OF THE INSTRUCTOR IF YOU INTEND TO RECORD ANY LECTURE OR LABORATORY CONTENT FOR USE OUTSIDE OF THE CLASSROOM.

IMPORTANT DATES TO REMEMBER

January 19, 2010, 1st day of classes.
Friday April 2, 2010 Spring Holiday.
Friday March 12, 2010. Last day to withdraw from a course with a “W” grade.
Spring Final Exam Week 5/10-5/14/10.