PHYSICS 201 (General Physics), Fall 2004

Instructor:
Professor Richard Taylor
Office: 173 Willamette Hall, telephone: 346-4741, email: rpt@darkwing.uoregon.edu
Office hours*: Monday, Wednesday and Friday 12.00-1.00pm
(*these are the times when I am guaranteed to be available. You can also try my office at other times or pre-arrange a meeting).

Lectures: (begin on Monday 27th September)
Objectives: to learn the basic laws of physics in the area of mechanics AND to see that physics can be interesting and relevant to your daily experiences!
Prerequisites: MATH 111 and 112 or equivalent (you must know algebra and trigonometry)


Websites:
1. "Class Website": http://materialscience.uoregon.edu/taylor/teaching/phys201.html
This website contains information about the lectures, tutorials, homework assignments and homework solutions.
This website is used to submit your homework for grading (the course code is "Taylor201")
If you need access to a computer see: http://cc.uoregon.edu/campuslabs.html

Tutorials: (begin on Friday 1st October)
Objectives: Tutorials give you the opportunity to discuss the physics you have met in lectures with your classmates and teaching assistants. With the support of the teaching assistants, you will work collaboratively with your classmates to develop and practice your problem solving skills. Each week's tutorial problems are designed to help you with your homework. You will be given a solution set to the tutorial problems at the end of each tutorial. The teaching assistants will also discuss approaches to solving several of the homework problems.

Registration: you must register for one of the eight weekly tutorial sessions using duckweb (http://duckweb.uoregon.edu/) or duckcall (346-1600). You must finalize your choice of tutorial session by the end of the first week of term. Each week you should attend the tutorial session in which you are registered unless you have permission from the teaching assistants to attend another session (see grading
Further help: in addition to your tutorial session, you can meet with your teaching assistant during his/her weekly office hours. The name of your teaching assistant and the time of their office hours will be arranged during your first tutorial. You can also use the drop in help-center.
Contact details of the teaching assistants:

Matt Fairbanks, Willamette Hall room 73, tel: 346-4771 (mfairban@darkwing.uoregon.edu)

Ronald Benjamin, Willamette Hall room 217, tel: 346-4793 (rbenjami@darkwing.uoregon.edu)

Emelie Harstad, Willamette Hall room 414a, tel: 346-4722 (eharstad@darkwing.uoregon.edu)

Kathy Hadley, Willamette Hall room 220, tel: 346-4792 (khadley@darkwing.uoregon.edu)

(Contact information of extra teaching assistants will be made available ASAP)

Weekly schedule: subject matter covered in a particular week (ie on the Monday, Wednesday and Friday lectures), will then be reviewed and developed in the following tutorial session. Your tutorial will take place either on the Friday of that week or the following Monday, Tuesday, Wednesday or Thursday. The Homework deadline is the next day on the Friday (see details below).

Grading:

Tutorials (10%) + Homeworks (35%) + 2 Mid-term exams (15% each) + 1 Final exam (25%)

Tutorial marks. 10% of your grade will be based on tutorial attendance as follows: miss none or one =10%, miss two=8%, miss three=7%, miss four=6%, miss five=5% etc. You may make up for a tutorial during the same cycle in another session if you have advance permission from the relevant teaching assistant. A tutorial cannot be made up by attending a tutorial in the next cycle.

Homework marks. About 10-15 homework questions and problems will be assigned for grading each week. Each Wednesday, the homework assignment will be both posted on the class website and also announced in class. The completed assignment should be submitted at the homework website no later than 9am on the Friday morning of the next week. Late homework will not be accepted because solutions to the homework will be posted on the class website at precisely 9am on the Friday. The online homework system will also provide your mark at 9am (each homework will be marked out of 20). Your lowest homework score will be dropped. If you have an exceptional reason for not handing in a homework contact your teaching assistant as soon as possible.

Exams: there will be two mid-term exams (on 22 Oct. and 10 Nov.). The final exam time depends on whether you are registered for the 9am or 2pm class. For students in the 9am class, the final will take place at 10.15-12.15 on Friday 10th December. For students in the 2pm class, the exam will take place at 3.15-5.15pm on 9 December.

Laboratory: those who are registered in the laboratory PHYS 204 will find that the laboratory exercises will also help you to understand the physics concepts. For more information on this course contact Prof. Dean Livelybrooks: 225 Willamette Hall, email: dlivelyb@hendrix.uoregon.edu. Website: http://hendrix.uoregon.edu/~dlivelyb/uo_ipl/index.html. Labs meet the first week of term.
### Syllabus:

Reading the textbook will greatly enhance your understanding. To help you, the following is an approximate schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Chapter</th>
<th>Topics</th>
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<tbody>
<tr>
<td>1: Sept. 27</td>
<td>1(all), 2-1 to 2-3, 2-8</td>
<td>Experimental science, measurements, position and velocity in one dimension, kinematics, graphical representation</td>
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<tr>
<td>2: Oct. 4</td>
<td>2-4 to 2-7, 4-1 to 4-4</td>
<td>Motion with constant acceleration, falling objects, Newton's First and Second Laws of Motion</td>
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<td>3. Oct. 11</td>
<td>4-5 to 4-6, 3-1 to 3-4</td>
<td>Newton's Third Law, weight, vectors</td>
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<tr>
<td>4. Oct. 18</td>
<td>3-5 to 3-8, 4-7 to 4-9</td>
<td>Projectile motion, Newton's laws in two dimensions</td>
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<tr>
<td>5. Oct. 25</td>
<td>5(all)</td>
<td>Circular motion, gravitation</td>
</tr>
<tr>
<td>6. Nov. 1</td>
<td>7-1 to 7-3, 6-1 to 6-3</td>
<td>Impulse and momentum, work and kinetic energy</td>
</tr>
<tr>
<td>7. Nov. 8</td>
<td>6-4 to 6-10, 7-4 to 7-6</td>
<td>Potential energy, conservation of energy, power, elastic and inelastic collisions</td>
</tr>
<tr>
<td>8. Nov. 15</td>
<td>7-8, 8(all)</td>
<td>Center of mass, rotational motion</td>
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<tr>
<td>9. Nov. 22</td>
<td>9-1 to 9-5</td>
<td>Bodies in equilibrium</td>
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<tr>
<td>10. Nov. 29</td>
<td>10-1 to 10-9</td>
<td>Fluids, pressure, Pascal's principle, Archimedes</td>
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</tbody>
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Contact details/office hours:

Richard Taylor, Willamette Hall room 173, tel: 346 - 4741, (rpt@darkwing.uoregon.edu)
Office hours: 12.00-1.00pm, MWF

Matt Fairbanks, Willamette Hall room 73, tel: 346-4771 (mfairban@darkwing.uoregon.edu)
Tutorials: 14107, 14096 Office hours: 10.00-11.00, Friday

Ronald Benjamin, Willamette Hall room 217, tel: 346-4793 (benjami@darkwing.uoregon.edu)
Tutorials: 14101, 14104
Office hours: 11.00-12.00, Friday

Emelie Harstad, Willamette Hall room 414a, tel: 346-4722 (eharstad@darkwing.uoregon.edu)
Tutorials: 14103, 14106
Office hours: 5.00-6.00, Tuesday

Kathy Hadley, Willamette Hall room 217, tel: 346-4792 (khadley@darkwing.uoregon.edu)
Tutorials: 14100, 14108
Office hours: 12.00-1.00, Thursday

Benjamin Lopez, Willamette Hall room x, tel: 346-x (blopez1@darkwing.uoregon.edu)
Tutorials: 14092, 14093
Office hours: X

Yan Guo, Willamette Hall room x, tel: 346-x (yguo@darkwing.uoregon.edu)
Tutorials: 14094, 14098
Office hours: X

Alexandre Dennisov, Willamette Hall room 454, tel: 346-5080 (denisov@darkwing.uoregon.edu)
Tutorials: 14102, 14109
Office hours: 10.00-11.00, Tuesday

Qi Li, Willamette Hall room B34, tel: 346-4450 (qli@darkwing.uoregon.edu)
Tutorials: 14105
Office hours: 1.00-2.00, Thursday

Andrew Cook, Willamette Hall room 216, tel: 346-4770 (acoook1@darkwing.uoregon.edu)
Tutorials: 14095, 14097
Office hours: 11.00-12.00, Wednesday
Tutorial information:

Tutorials associated with the 9am (14091) class:
14092 9am, Thursday, 112 Willamette
14093 10am, Thursday, 112 Willamette
14094 11am, Thursday, 112 Willamette
14095 1pm, Thursday, 112 Willamette
14096 10am, Friday, 18 Willamette
14097 12pm, Friday, 13 Willamette
14098 11am, Friday, 13 Willamette
14102 3pm, Thursday, 112 Willamette
14109 2pm, Thursday, 112 Willamette

Tutorials associated with the 2pm (14090) class:
14100 3pm, Monday, 112 Willamette
12101 4pm, Monday, 112 Willamette
14103 4pm, Tuesday, 112 Willamette
14104 3pm, Wednesday, 112 Willamette
14105 4pm, Wednesday, 112 Willamette
14106 1pm, Friday, 112 Willamette
14107 5pm, Wednesday, 112 Willamette
14108 5pm, Thursday, 112 Willamette