UNIVERSITY OF WATERLOO
Physics 122: Wave, Electricity and Magnetism – Spring 2015

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Web site for the course: learn.uwaterloo.ca
UserId: Your Quest UserID
Password: Your Quest Password

Assignment Solutions, Old Mid Term Tests, Old Final exams and other information will be available on the web site.

Text book:
Recommended textbook (optional): “University Physics with Modern Physics” by Young & Freedman. Recommended online problems (optional): “Mastering Physics.”
The UW bookstore stocks both, bundled together at a discount.
Note: Any similar textbook (new or used) will suffice as long as it is calculus-based; e.g., Serway et al, Halliday et al, Hawkes et al, and Wolfson have all been used in the past for this course. You may also download a textbook, e.g., the book by Benjamin Crowell: http://www.lightandmatter.com/.

Topics Covered: Ch.14 (1-5), Ch.15 (all), Ch.16 (1-5), Ch.21 (1-6), Ch.22 (all), Ch.23 (all), Ch.24(all), Ch.27 (all), Ch.28 (), Ch.25(1-5), Ch.26 (1,2), Ch.29 (1-7),

The loss of a Wednesday class on Canada Day (July 1) will be made up by following a Wednesday schedule on Tuesday July 28. Consequently, classes scheduled on Tuesday will not meet that day.

<table>
<thead>
<tr>
<th>Week</th>
<th>Starting</th>
<th>Chapter</th>
<th># of Lectures</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4 May</td>
<td>14-Oscillations (1-5)</td>
<td>3</td>
<td>-none-</td>
</tr>
<tr>
<td>2</td>
<td>11 May</td>
<td>15- Waves</td>
<td>3</td>
<td>-none</td>
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<tr>
<td>3</td>
<td>18 May</td>
<td>16-Sound waves (1-5)</td>
<td>2</td>
<td>#1</td>
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<td></td>
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<td>Monday 18 May: Victoria day   Assignment due: Tues May 19th</td>
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<tr>
<td>4</td>
<td>25 May</td>
<td>16- Sound</td>
<td>3</td>
<td>#2</td>
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<td></td>
<td></td>
<td>21- Electric Charge/ Field (1-6)</td>
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<tr>
<td>5</td>
<td>1 June</td>
<td>21- Electric Charge/Field</td>
<td>3</td>
<td>#3</td>
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Tutorials, Assignments and Quizzes:

Weekly Assignments: Due on Monday of the week shown, no later than 4.00 pm (for holiday May 18th assignments to be submitted on May 19th)

The weekly assignment will consist of about ten problems, 3 of which are to be handed in (to the appropriate boxes beside Phys 211A, please read the box labels carefully and pick the right tutorial section) by 4.00 pm on the Monday of the week shown. Only one of these will be graded and the set will be returned one week later (note that the above schedule shows the week that each problem set is due; eg. Assignment 1 is due on Monday of week 3). Solutions must be laid out properly and all steps shown, answers underlined and diagrams labelled appropriately. Marks will be deducted for missing name, ID or Tutorial Section number. Solutions will be discussed in tutorials and posted on LEARN after the due date.

Tutorials and Quizzes

A one hour slot is scheduled on your timetable for tutorials. This is essentially a problem-solving session. A short quiz will be held during the tutorial. Be sure to bring your textbook to each problem-solving session. Tutorials begin the week of May 12.

Each week’s assignment is discussed during the tutorial. Attempt as many assigned questions as possible before you come to the problem-solving session. It is only through your individual effort that you will become proficient at solving problems. There are no laboratories associated with this course.
In order to encourage you to do all the assigned problems and not just the bolded ones, the quiz question will be chosen from the assigned problems most of the time.

The quizzes and assignment are synchronized to, ideally, go over the material covered the week before. Quizzes are due during the tutorial, the associated assignment, discussed during the tutorial is due the Monday After.

**RETURNING MARKED QUIZZES AND ASSIGNMENTS**
Graded quizzes and assignments will ideally be returned the next tutorial session. Due to logistical considerations these will not be handed back personally, but will likely be placed in the classroom to be picked up. If you want your quizzes to be handed to you directly please ensure to inform your TA during the first tutorial.

Graded quizzes will ideally be returned the next tutorial session. Due to logistical considerations these will not be handed back personally, but will likely be placed in the classroom to be picked up. If you want your quizzes to be handed to you directly please ensure to inform your TA during the first tutorial.

**Please note that**
1. It is against University rules to pick up someone else’s quiz
2. Students who do not wish to pick up their quizzes in the fashion described above need to inform the grading TA of their preference ahead of time and make acceptable arrangements with the grading TA.

**Pop quizzes during the lectures:**
In some lectures you will be asked to write short pop quizzes. The quiz would be from the material covered during the session. Please use your text book to pre study the subject to be taught in each session as outlined in this handout. Pop quizzes will be hand marked and worth 5% bonus mark.

**Term Test:**  Wed. June 10th  6:00 - 7:30 pm  Phys 308  
**AIDS:** a calculator, and a formula sheet provided by your Instructor

**Final Exam:**  To be arranged in August- 2.5 hour duration  
**AIDS:** a calculator, and a formula sheet provided by your Instructor

Students will be expected to show work on their examination booklets to support their choice of answer on the computer marked questions on the term test and on the final exam.

**Grade:** Each student will receive the higher of M1 or M2, where
M1= 0.1 P + 0.1 Q + 0.3 T + 0.5F
M2= 0.1 P + 0.1Q + 0.1 T + 0.7 F
And P, Q, T, and F are percentage grades for the problem assignments, tutorial quizzes, term test, and final exam respectively.

**Academic Integrity and Plagiarism:**

**Academic Integrity:**
In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.  
[Check http://www.uwaterloo.ca/academicintegrity/ for more information.]
Grievance:
A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please be certain to contact the department’s administrative assistant who will provide further assistance.

Discipline:
A student is expected to know what constitutes academic integrity [check http://www.uwaterloo.ca/academicintegrity/] to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties check Guidelines for the Assessment of Penalties, http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm.

Appeals:
A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

Note for Students with Disabilities:
The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

First year engineering website:
Please consult this website for a host of useful information including Counseling, and extra help sessions.
http://www.eng.uwaterloo.ca/~year1web/