Divisions | Instructor | Office | Phone | E-Mail
---|---|---|---|---
4 & 5 | Rohan Jayasundera | PHY 243 | 32736 | jayasund@uwaterloo.ca

UW LEARN Web site for the course: learn.uwaterloo.ca

User Id: Your Engineering User Id
Password: Your QUEST password

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

A two-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 Jan. 9th.

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.

Text: David Halliday, Robert Resnick, and Jearl Walker

Fundamentals of Physics
Ninth Edition

Term Test: Physics Midterm: Monday, Feb. 6th 7:00-9:00 p.m.
Multiple Choice, marked by computer, AIDS: a calculator, and a formula sheet provided by your Instructor

Final Exam: To be arranged in April- 2.5 hour duration
Marked partly by computer, partly by hand
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.

Study Break Week of Feb. 20th

"Physics is the fundamental experimental science. Its purpose is to make sense out of the behaviour of the physical universe. In physics, a phenomenon is examined quantitatively through measurements. The relations among the physical quantities observed in experimentation are expressed with precision and economy in the language of mathematics. When a relation summarizes many experiments with a reliability so great that it can be said to reflect universal behaviour in nature, then it is said to be a “laws” of physics. Happily, the laws of physics are few, and the whole variety of physical phenomena is comprehended in a remarkably small number of fundamental laws.”
**Topics Covered:** Ch.15 (1-7), Ch.16 (all), Ch.17 (all), Ch. 33(1-2 & 6-9), Ch.34 (all), and CH.35 (all), Ch.36(all), Ch.38 (1-4 & 6), Ch.39 (1-3 & parts of 8)

<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>2 Jan</td>
<td>15-Oscillations</td>
<td>2</td>
<td>-none-</td>
</tr>
</tbody>
</table>
| 2    | 9 Jan    | 15-Oscillation  
               16-Waves-I (waves on a string) | 3             | #1         |
| 3    | 16 Jan   | 17-Waves-II (Sound) | 3             | #2         |
| 4    | 23 Jan   | 17-Waves-II (sound) | 3             | #3         |
| 5    | 30 Jan   | 33-Electromagnetic Waves  
               34-Geometrical Optics | 3             | #4         |
| 6    | 6 Feb    | 34-Geometrical Optics | 3             | None       |

**Test:** Monday, February 6th form 19:00 to 21:00 (7.00 pm to 9.00 pm)

<table>
<thead>
<tr>
<th>Week</th>
<th>Starting</th>
<th>Chapter</th>
<th># of Lectures</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>13 Feb</td>
<td>34-Geometrical Optics</td>
<td>3</td>
<td>#5</td>
</tr>
<tr>
<td>8</td>
<td>20 Feb</td>
<td>Study Break:</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>9</td>
<td>27 Feb</td>
<td>35-Interference</td>
<td>3</td>
<td>#6</td>
</tr>
</tbody>
</table>
| 10   | 5 March  | 35-Interference  
               36-Diffraction | 3             | #7         |
| 11   | 12 March | 36-Diffraction | 3             | #8         |
| 12   | 19 March | 38-Photons & Matter Wave-II | 3             | #9         |
| 13   | 26 March | 39-Photons & Matter Waves-II | 3             | #10        |

**Lectures end on Monday April 2nd**

**Weekly Assignments:** Due on Friday of the week shown, no later than 4.00 pm

The weekly assignment will consist of about ten problems, 3 of which are to be handed in (to the boxes outside PHY 145) by 12:00 noon on the Friday 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 Friday of week 2). 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 near the (a) WEEF lab and (b) the Library Reserve Desk in the Davis Centre (Call Number DWE 1388).

**Academic Integrity and Plagiarism:**

Policy 71 on student academic discipline ([http://www.adm.uwaterloo.ca/infocus/UW/policy_71.html](http://www.adm.uwaterloo.ca/infocus/UW/policy_71.html)) outlines academic offences that are punishable. The first year Engineering web site also refers to this. Please refer to [http://www.eng.uwaterloo.ca/~year1web/a_integrity.html](http://www.eng.uwaterloo.ca/~year1web/a_integrity.html).