PHYS*1070 Introductory Physics for Life Sciences  
Winter 2018 Course Outline  
University of Guelph  
Department of Physics

Course Information

General Information

Prerequisites: (1 of 4U Physics, OAC Physics, PHYS*1020), 4U or OAC Mathematics  
Course Credit Weight: 0.5

Academic Misconduct

The University of Guelph takes a serious view of academic misconduct and will severely penalize students, faculty and staff who are found guilty of offences associated with misappropriation of others' work, misrepresentation of personal performance and fraud, improper access to scholarly resources, and obstructing others in pursuit of their academic endeavors. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. Each student is assumed to be familiar with the regulations surrounding academic misconducts, as spelled out in the Undergraduate Calendar academic misconduct section

Course Related Information and Contact

Quiz Room Location: SSC1101A  
Laboratory Location: MacN304  
Lost and Found: "Lost and Found" is in the Quiz Room (SSC1101A).  
Quiz Room Hours: Posted on Courselink – see Quiz Room Operating Hours  
Lab Room Hours: Courselink – see Lab Program.  
Extra opening times may be added depending on enrolment.
Please contact the Quiz Room Supervisor with all course related inquiries and email to report any illness or errors in your Courselink gradebook record.

**Courselink at Guelph**

Students in this course will need to use Courselink to write **required** Pretests, perform a simulated experiment on radiation (Pretest 5), and check their term marks. **As soon as possible, you should check that you can log in to Courselink:**

* Use a web browser to go to the [Courselink website](#)
* Follow the Courselink login instructions.

**Instructors**

<table>
<thead>
<tr>
<th>Lecturer</th>
<th>Office</th>
<th>Extension</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl Svensson</td>
<td>MacN 221</td>
<td>54573</td>
<td><a href="mailto:sven@uoguelph.ca">sven@uoguelph.ca</a></td>
</tr>
<tr>
<td>Rob Wickham</td>
<td>MacN448</td>
<td>53704</td>
<td><a href="mailto:rwickham@uoguelph.ca">rwickham@uoguelph.ca</a></td>
</tr>
</tbody>
</table>

**Lecture Sections**

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Monday, Wednesday and Friday</td>
<td>2:30pm – 3:20pm</td>
<td>ALEX 200</td>
</tr>
<tr>
<td>02</td>
<td>Monday, Wednesday and Friday</td>
<td>10:30am - 11:20pm</td>
<td>THRN 1200</td>
</tr>
<tr>
<td>03</td>
<td>Tuesday</td>
<td>7:00pm - 9:50pm</td>
<td>THRN 1200</td>
</tr>
<tr>
<td>Week</td>
<td>Lecture</td>
<td>Week of</td>
<td>Topic(s)</td>
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<tr>
<td>------</td>
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<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>1-4</td>
<td>January 8</td>
<td>- Introduction to waves&lt;br&gt;- Waves and traveling waves&lt;br&gt;- Superposition and standing waves</td>
</tr>
<tr>
<td>2</td>
<td>5-7</td>
<td>January 15</td>
<td>- Acoustic resonance&lt;br&gt;- Energy, power and intensity of sound&lt;br&gt;- The ear</td>
</tr>
<tr>
<td>3</td>
<td>8-10</td>
<td>January 22</td>
<td>- Snell’s Law&lt;br&gt;- The visual process&lt;br&gt;- Refraction at a spherical surface</td>
</tr>
<tr>
<td>4</td>
<td>11-13</td>
<td>January 29</td>
<td>- Lenses&lt;br&gt;- General object-image concepts&lt;br&gt;- The human eye, eye defects and their correction</td>
</tr>
<tr>
<td>5</td>
<td>14-16</td>
<td>February 5</td>
<td>- Electromagnetic waves&lt;br&gt;- Diffraction and interference&lt;br&gt;- Resolution</td>
</tr>
<tr>
<td>6</td>
<td>17-18</td>
<td>February 12</td>
<td>- Wave properties of particles&lt;br&gt;- Orbitals; the wave equation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>February 19-23</td>
<td>- <strong>WINTER BREAK</strong></td>
</tr>
<tr>
<td>7</td>
<td>19-21</td>
<td>February 26</td>
<td>- Energy levels and light absorption&lt;br&gt;- Fluorescence, phosphorescence (concepts) &amp; Spectrophotometer&lt;br&gt;- Linear molecules</td>
</tr>
<tr>
<td>8</td>
<td>22-24</td>
<td>March 5</td>
<td>- Ring molecules&lt;br&gt;- Beer’s law&lt;br&gt;- Rotation and vibration&lt;br&gt;- Fluorescence and phosphorescence (calculations)</td>
</tr>
<tr>
<td>9</td>
<td>25-27</td>
<td>March 12</td>
<td>- Radioactive decay, half-life&lt;br&gt;- Absorption of radiation&lt;br&gt;- Radiation dose</td>
</tr>
<tr>
<td>10</td>
<td>28-30</td>
<td>March 19</td>
<td>- Coulomb’s law&lt;br&gt;- Fields and potentials</td>
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<tr>
<td>Week</td>
<td>Lecture</td>
<td>Week of</td>
<td>Topic(s)</td>
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| 11   | 31-33   | March 26| - Current, voltage and circuits  
- Ohm's law  
- Simple circuits | 8 |
| 12   | 34-35   | April 2 | - Final exam info  
- Problems and review | |

**Note:** The information in the Lecture Schedule “Topic” column is provided as a rough guide for the term. Future announcements about changes to the table or of any kind will be made in class and posted on Courselink; these announcements take precedence over the original course outline!

**Text & Other Required Materials**


2. **Study Guide and Laboratory Manual for PHYS*1070, 2017 Printing.** Available in the Quiz Room SSC1101A for $20.00 (Cash Only - exact change appreciated).

   **Booksale** - The Quiz Room will be open for the sale of manuals Monday January 8-Friday January 12 from 9am to 3pm, After Jan. 12 this item may be purchased in the Quiz Room during normal Quiz Room daytime hours as posted on Courselink.

3. **Calculator** (get one with trig functions, e^x, etc.) (graphing calculators, programmable calculators, and electronic devices ie. Cell phones, ipods, ipads, laptops, are not allowed at any time while in the quiz room).

4. **This Course Outline:** includes important dates and deadlines, lecture schedule, evaluation information, personal record sheet, etc.

5. The following items are available on Courselink;
   a. **Sample Final Examinations**
   b. **Sample Quiz** on each study guide
   c. **Solutions to self-tests**
**Evaluation**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Quizzes (5x10%)</td>
<td>50%</td>
</tr>
<tr>
<td>(see page 7 for information on quiz deadlines and notes)</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
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</tbody>
</table>

**Evaluation of Quiz Marks**

Quizzes are marked out of 10

8/10 or higher receive 10 out of 10 (highest possible mark per unit) between 4.0/10 and 7/10 (inclusive) receive 2 marks per attempt less than 4/10 receive zero

The partial mark of 2 does not add to a mark of 10. It is awarded on the condition you do not receive a “pass” on any attempt on a unit quiz. See the examples below.

Four examples:

1. A student earns 4.0/10 on the first quiz attempt, 6.0/10 on the second quiz attempt, and 8.0/10 on the third quiz attempt. Mark received: 10 out of 10.
2. A student earns 4.0/10 on the first quiz attempt, 5.5/10 on the second quiz attempt, and 7.5/10 on the third quiz attempt. Mark received: 6 out of 10.
3. A student earns 2.5/10 on the first quiz attempt, 4.0/10 on the second, and 7.5/10 on the third. Mark received: 4 out of 10.
4. A student earns 7.5/10 on the first quiz attempt and tries no further quizzes. Mark received: 2 out of 10.

**Final Examination**

Final Exam Date: SATURDAY, APRIL 14, 2018 8:30-10:30AM

The final examination will consist of approximately 20 questions with multiple-choice answers. Sample final examinations are available through Courselink. Normally there are 2-3 questions based on each of Study Guides 1-6 and 3 questions each on Study Guides 7 and 8, for which there are no quizzes. At least half of the questions on Study Guides 1-6 are similar in style to Quiz questions for these Study Guides. Many students have found that the final examination is difficult, even with a perfect mark on the Quizzes. This is because mastery of all of the Study Guides is required in order to achieve a perfect mark on the final examination. A thorough review of all of the course material is highly advisable in preparing for the final examination.
How the Course Works

Introduction

Students’ study schedules at University are often based on a crisis-to-crisis approach (When’s my next midterm exam?) rather than on organized learning. To reduce this problem, Introductory Physics for Life Sciences is offered using a "Personalized Instruction" method which gives the student some flexibility in scheduling study time.

The central idea of this teaching method is the accommodation of both the student who needs or likes formal lecture teaching and the student who prefers guided self-instruction. Indeed, in this course, any combination of these two extremes may be mixed to the student's own taste.

Many thousands of students have taken this course and almost every semester has seen some modification, usually minor, in the operation of the course. The present version of the study materials incorporates a large number of constructive suggestions made by students. We hope you will continue to point out errors, omissions and weaknesses so that the course and its teaching materials can be regularly upgraded. We are confident that this thoroughly tested learning concept will continue to be met with enthusiastic approval from the majority of our students.

Lectures

Formal lectures will be given and you will find a detailed timetable of dates and topics in this course handout. Students may attend all of the lectures or select only those topics in which they feel they need lecture support. You are strongly advised to attend lectures until you are sure that the self-study method works for you. In any case, the entire course content will be covered in these lectures. Whether you attend lectures or not, it is your responsibility to check the quiz room for important weekly notices regarding the course.

Modules

The Handbook contains the eight Study Guide modules (SG 1 to 8) for this course. Please see page 6 of the outline. These eight modules cover the entire course and are designed so that you need never actually attend a lecture if you follow their advice scrupulously. (You must, however, do laboratory work.) Each module provides you with:

1. a brief introductory discussion of what the module is about,
2. the educational objectives of the module,
3. a detailed study guide (reading and problem lists, etc.)
4. self tests,
5. answers to problems, and sometimes
6. extra problems.

These self-study modules are your chief help; the Study Guide is a teacher at your side constantly and should be studied with care.
# Quiz Deadlines and Important Notes

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Notes</th>
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<tbody>
<tr>
<td></td>
<td>Monday, January 8</td>
<td>Quiz Room Opens for Writing</td>
</tr>
<tr>
<td>1</td>
<td>Wednesday, January 10</td>
<td>Lab Room (MacN 304) is open</td>
</tr>
</tbody>
</table>
| 3    | Friday, January 26  | Last day for Quiz #1  
Requirements:  
1. Pretest (on-line)  
2. Waves (Study Guide 1)  
3. Acoustics (Study Guide 2) |
| 5    | Friday, February 9 | Last day for Quiz #2  
Requirements (2 labs required):  
1. Pretest 2 (on-line)  
2. Optics (Study Guide 3)  
3. Experiment 2 – Acoustics (MacN 302)  
4. Experiment 3 – Optics of the Eye (MacN 304) |
|      | Monday-Friday  
February 19-23 | Winter Break                               |
| 7    | Friday, March 2   | Last day for Quiz #3  
Requirements (2 labs required):  
1. Pretest 3 (on-line)  
2. Diffraction, etc. (Study Guide 4)  
3. Experiment 4 – Diffraction and Resolving Power (MacN 302)  
4. Experiment 6 – Visible Spectroscopy (MacN 304) |
| 9    | Friday, March 16  | Last day for Quiz #4  
Requirements:  
1. Pretest 4 (on-line)  
2. Light Absorption (Study Guide 5)  
3. Observed Abs. (Study Guide 6) |
| 11   | Thursday, March 29 | Last day Laboratory (MacN 304) is open  
Last day for Quiz #5 |
### Requirements (2 labs required):

1. Pretest 5 (on-line computer lab – Radiation – Experiment 7)
2. Experiment 8 – Electrical Measurements and resistance (MacN 304)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Notes</th>
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<tbody>
<tr>
<td>12</td>
<td>Friday, April 6</td>
<td>Quiz Room closes at 3:00pm</td>
</tr>
</tbody>
</table>

**Note:** Ionizing Radiation (Study Guide 7) and Electricity (Study Guide 8) will be tested on the final exam (approximately 3 questions on each study guide.)

### Obtaining Help in the Course

a) Brief questions can be answered by the course professor after lectures. Office hours will be announced in class.

b) **LIB370** – Monday-Thursday 12noon-4pm beginning Monday, January 15. Help is available in the quizroom during week 1 Monday-Friday 10-11am and 2-3pm.

c) Limited help may be obtained in rooms MacN 304 or 304A. These are the lab rooms for this course PHYS*1130 and PHYS*1070 and 1080. When these rooms are open you may obtain help with course-related problems from the instructors, but remember that their first priority is to help students who are doing experiments.

d) The Solutions to the Self-Tests (which are on reserve in the Library) and the set of 3 sample final examinations will be helpful (see page 4). These are available on Courselink.

e) The following can be accessed from the internet via Courselink:

   a. Dimensional analysis                      f. Oscillating functions
   b. Trigonometry                              g. Graphing
   c. Logarithms                                h. Exponential growth and
d. Graphing simple functions                     decay
   e. Graphing log paper                         i. Solutions to the Self-Test

f) Also available at the Library Reserve Desk:

   a. Physics for the Biological Sciences, 5th ed. (Hallett, et al.)
   b. Study Guide and Laboratory Manual for PHYS*1070
Laboratory Protocol

- **Lab experiment sign up is done on-line via CourseLink.** Begin your labs early. Labs can be done in any order being sure that specific labs are complete by quiz deadlines. It is recommended that you start the lab portion of this course during the first couple of weeks of the semester. It is mandatory that you sign up for all your labs and create your own personal lab schedule **early** in the semester to ensure that all labs can be completed by the lab quiz deadline dates (plan carefully). Print a copy of your lab schedule and staple it inside your lab manual as your lab TA may ask for it if more than the maximum number of students show up for a booked station. Only those signed up to a station will be allowed in the lab. You must attend all of your scheduled labs.

- **Please note:** lab sign-up is restricted to 1.5 hour time slots which is sufficient time to collect the required data and complete your calculations. You are required to be familiar with the lab material before arriving to ensure completion within the 1.5 hour session. A completion **TA signature and seal is mandatory** prior to leaving the lab. Once you have completed the lab data and calculations and obtained a TA signature/seal you will tear off that signed/sealed portion and hand it at the Quiz Room when making your first attempt at the related quiz.

Quiz Room Information

Quiz Room Protocol

- Students must show their U of G photo ID card in order to write a quiz.
- Only 1 quiz attempt per day is allowed on same quiz group.
- Your 1st attempt should be at least 3 days before the deadline to allow for a possible 2nd or 3rd attempt. **NOTE: evening sessions take a max. of 250 students and will close when that number is reached (do not count on this session to be included to meet the deadline).** All quizzes are available from week 1 and they can be written as early as you want. The dates above only reflect the last possible date that particular quiz is available to write.
- No credit will be granted for labs or quizzes completed during a previous semester.
- If you absolutely cannot stay to have your quiz marked, you may leave it. It will be marked at the end of the quiz period and the mark posted. It will be available for you to look at for two further quiz days.
• **Book Bag Lock (optional)** – Book bags are **not** allowed to be taken to your quiz writing station in the quiz room. The designated area for book bags is equipped with cables for locking (**you must bring your own lock**).

• Pretests **must** be passed with a minimum of 60% before the required quiz is attempted. Allow at least 1 hour for your Pretest grade to be processed.

• All electronic devices must be concealed while in the quiz and lab rooms ie, cell phones, lap tops, ipods, tablets etc.

• All quizzes remain in the quiz room.

• Wait quietly to have your quiz graded by the TA’s. If you miss hearing your name your quiz will be graded in your absence.

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**The Pretests**

Before any quiz can be written for credit, a Pretest must be taken and passed at the level of 60%. Allow at least 1 hour prior to attempting related quiz. These Pretests are designed to permit a self-examination of the basic concepts and objectives of the modules in question. Each Pretest consists of a variety of simple questions in one of 4 formats:

1. multiple choice
2. true or false
3. pairwise matching
4. enter a number or symbol

The Pretests are delivered using Courselink and so can be taken from any location which has computers connected to the internet. Login instructions are given on page 2.

**IMPORTANT NOTE:** - *If you open a pretest to look at it you must either continue the test or if you are not ready go directly to the bottom - “submit for grading-view results”. Once cleared, another version of this pretest will be available immediately to you. If you fail to submit a pretest for marking, that version will stay open and will not allow you to make another attempt.*

Follow the login instructions and the instructions which follow enabling you to take the Pretest. Upon completion it will be marked and an explanation provided for every question for which you selected the wrong answer. These should be studied carefully.

When you obtain at least 60% on the Pretest, you may proceed to the Quiz Room to write a quiz for credit. (Allow at least 1 hour for your mark to process before attempting related quiz).

If you failed to get 60%, you must repeat the Pretest until 60% is obtained. Pretests are unlimited.

Of course, you get the maximum advantage from these Pretests if you do them without help and, as much as possible, without aids (textbook, etc.).

It is a serious academic offence to copy, print or otherwise store the Pretests or to attempt to alter them in any way.
Also available on Courselink are Sample Quizzes for each Study Guide, similar to quizzes that you will write in the Quiz Room.

**Diagnostic Quizzes**

You can in principle try quizzes in any order. However, note that quizzes are withdrawn on specific dates (see page 7&8), so these should be attempted as appropriate. Also, note that some quizzes may require knowledge of material from previous quizzes. A non-credit Pretest must be completed before its Quiz for credit can be written. The Pretests are available on Courselink. See page 10 for details. Pretests are available for study guide modules 7 and 8 even though there are no quizzes. These are strongly recommended for study purposes.

Each Pretest is an aid to help you learn the material contained in the associated Study Guide. When you have passed the Pretest (min. 60%), you should have acquired a basic understanding of the material in the Study Guide (see page 7&8). The format of the Pretest is different from that of the quiz. A sample of each quiz is provided on Courselink for you to look at. The quiz tests mastery of that material, and so you may find that you do not pass the quiz on the first attempt (see page 9 for detailed information).

Regardless of the combination of formal lectures and/or self-study you use to acquire knowledge in the course, the question is "how do you demonstrate this knowledge and receive credit for it?" When you think you have mastered the contents of the required modules, and have passed (60%) the associated Pretest, you should go to the Quiz Room where you may request a Diagnostic Quiz. This quiz is designed to test your mastery of the material. Note however a very important point: there are far more study guide topics than there are quizzes that you are expected to write. Consequently, the quizzes include questions from several study guides as shown on page 7. For example, Quiz #1 contains questions from waves and acoustics. It is therefore very important that you come prepared for both. Allow 1 hour for Pretest mark to process before attempting the related quiz. You will need your University of Guelph photo ID card in order to write a quiz. The time allotted for each quiz is 20 minutes. When you have completed the quiz, it is marked immediately by a tutor in your presence. In this way, no time is wasted teaching you things you already know, but the quiz will isolate those things (if any) you don't know. The tutor will give you help on the spot when time permits. It is important to emphasize the diagnostic aspect of this quiz; diagnosis is its prime purpose. It is of no value to write one if you are not prepared; you are wasting everyone's time. The level at which you are considered to have "mastered" the material is 80%, i.e., the "pass mark" is 8 out of 10.

Each module that is mastered contributes 10% toward your course mark. (See evaluation on page 5) If you do not get 80% on your first attempt (and you may not), it doesn't matter. There is no stigma attached to failing this quiz; that is not its purpose. You may go away, study, and try again. The quiz will have served to show you what you must study for that module. Obviously there must be a limit to the number of times you may write quizzes on a single group, and this has been set at three. Also, you may not attempt more than one quiz for each group in a single day.
During quizzes (and the final examination), you may use a pocket calculator (graphing calculators and/or any electronic devices, ie, cell phones, ipods, ipads, notepads etc., are not allowed during the exam or in the quiz room). In the quiz room, each desk is provided with a sheet of formulae. A copy of this sheet will be included in the final exam. **No material in the form of quizzes or paper may be taken from the Quiz Room and all paper used when writing a quiz must be turned in.** You should visit the Quiz Room during the first week of the semester to see how the system operates.

As shown on page 7 & 8, there are 5 quizzes to be completed. There is no quiz on Study Guides 7 or 8, although the experiments related to Study Guide 7 and Study Guide 8 are covered in Quiz 5. There will be at least 3 questions each on Study Guides 7 and 8 on the final examination.

Self-paced study is a new experience for most students. **At best, it permits you to work ahead in physics early in the semester, freeing study time for other courses during heavy weeks. At worst, there is a temptation to leave things too late.** To help pace students, deadlines are placed on quizzes. (Refer to page 7 & 8)

**Experiments**

There are 6 experiments to be done, associated with Study Guide units 2, 3, 4, 6, 7 and 8 (see page 7 and 8 of the outline). Five of these experiments are done in the lab rooms (MacN 302 or 304) and they may be performed in any order, at any time the lab is open (see Courselink for available sessions – Lab Scheduling Program). The laboratory operates as an open lab, but you must reserve a space (sign up on Courselink). It is mandatory to sign-up for all required labs and create your own personal lab schedule at the start of the semester. **You cannot just show up and join a group without being assigned to a station.** If you **miss your lab you may have a difficult time re-scheduling.** Print this schedule and staple it inside your lab manual.

Each station can be reserved for 1.5 hours. There is also one computer simulation (Experiment 7) which can be done from any location which is connected to the internet. Once your lab is complete (data and calculations) you must have the lab TA stamp your lab to allow you to write the related quiz. When you make your 1st attempt at that quiz you will tear out the signed/stamped page and hand it in as proof of completion. Notice that the lab instructor does not assign a mark to your lab work, although he/she may refuse to accept it if he/she judges the work to be inadequate. Your understanding of the material is tested in the quiz on the associated Study Guide. Experiment 7 is a computer simulation, which can be done anywhere there is a computer connected to the internet; home, library, etc. You can access Experiment 7 from **the Courselink website.** When you have completed the experiment, this information will automatically be transferred to your record (allow at least 1 hour).

Remember that some quizzes require labs to be complete prior to writing them. **No lab exemptions will be granted for labs completed in another semester.**
Course and University Policies

Academic Misconduct
The University of Guelph takes a serious view of academic misconduct and will severely penalize students, faculty and staff who are found guilty of offences associated with misappropriation of others' work, misrepresentation of personal performance and fraud, improper access to scholarly resources, and obstructing others in pursuit of their academic endeavors. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. Each student is assumed to be familiar with the regulations surrounding academic misconducts, as spelled out in the Undergraduate Calendar academic misconduct section.

Accuracy of Records
It is your responsibility to use Courselink to check that your marks are recorded correctly. Please check your record often and report any discrepancies immediately to the Quiz Room Supervisor Cindy Wells (cwells@uoguelph.ca). As an aid, a 'Personal Record Form' is provided on Courselink. You should use this form to record your quiz attempts, etc., and from time to time check the computer record against your personal record.

Illness
If you are away for brief periods of time due to medical, psychological or compassionate reasons, see or email the Quiz Room Supervisor immediately Cindy Wells (cwells@uoguelph.ca) about consideration of extension of deadlines, etc. (Do not wait until the end of the semester to submit your documentation). For an extended illness, etc. (> 1 week), you should obtain a medical certificate or similar documentation and consult the Quiz Room Supervisor or the instructor. If you miss the final examination because of illness or for other reasons, consult regulations in the current Undergraduate Calendar.

Course Notices
From time to time, notices pertaining to the course will be posted on Courselink, given in lectures and/or posted by the Quiz Room door or inside the quiz room (SSC1101A). You should check this door and room weekly for notices and reminders, etc. It is your responsibility to keep yourself informed regarding these special announcements.

E-mail Communication
As per university regulations, all students are required to check their <mail.uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

**Drop Date**

The last date to drop one-semester courses, without academic penalty, is **Friday, March 9**. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar "Dropping Courses" section.

**Accessibility**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email sas@uoguelph.ca or refer to the SAS website.

**Recording of Materials**

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

Material recorded with permission is restricted to use for that course unless further permission is granted.

**Course Evaluation**

The Department of Physics requires student assessment of all courses taught by the Department. These assessments provide essential feedback to faculty on their teaching by identifying both strengths and possible areas of improvement. In addition, annual student assessment of teaching provides part of the information used by the Department Tenure and Promotion Committee in evaluating the faculty member's contribution in the area of teaching.

The Department's teaching evaluation questionnaire invites student response both through numerically quantifiable data, and written student comments. In conformity with University of Guelph Faculty Policy, the Department Tenure and Promotions Committee only considers comments signed by students. Your instructor will see all signed and unsigned comments after final grades are submitted. Written student comments may also be used in support of a nomination for internal and external teaching awards.

NOTE: No information will be passed on to the instructor until after the final grades have been submitted.