PHYS 110 – Introductory Physics I - A01
Course Outline: Jan 2014 – Apr 2014

Instructor: Drs. J. Massolt
Office: Elliott 108
Phone: 721-7703
Email: jmassolt@uvic.ca

Lectures: 1:00 – 2:30 MR, ELL 168
I will post individual office hours on the PHYS 110 "Moodle" site.

Labs: Lab sections are normally held in Elliott 144.
Labs start January 6 – you will be given your laboratory schedule during the first lab. Attend the labs at the times assigned by your laboratory instructor. You must complete all labs and have satisfactory standing to obtain credit for the course. You must attend the labs for which you are registered.

Prerequisite: MATH 100 or 102, and BC Physics 12 (or equivalent)
To register in this class, you must have credit for, or be concurrently registered (at UVic) in a calculus class (MATH 100 or 102). We expect that you have mastered equivalent material to BC Physics 12.

Required Texts: "University Physics" Young/Freedman - UVic Custom Edition
"PHYS 110 Workbook" Keeler/Laidlaw

The "University Physics" text is sold in the Bookstore packaged with access to an online course management system: MasteringPhysics. This system is required in order to access, complete, and receive credit for the assignments.
Section A01 will be using iClickers for in-class questions.

Course objective:

In this course we will give an overview of, and teach the basic principles of, a number of areas of physics. You will learn to analyze physical systems and to identify the principles by which they operate. You will also learn to apply and interpret mathematical tools such as vectors, calculus, and symbolic manipulation to predict and understand the behavior of these systems. In the process we will stimulate your curiosity about the physical world and help you develop analytical thinking skills that you can apply in your future studies.

Course content:

Newton's laws; particle dynamics and curvilinear motion; force and momentum; kinetic and potential energy; circular and rotational motion; gravitational and electric forces.

Organizational Details:

Midterm Exams:

There will be two midterm exams tentatively on February 5 and March 12.
The exams are scheduled for 6:30 pm – 8:00 pm both days.
The location you write your exam will depend on which section you are in. I will give instructions about exam location nearer the time of the exams.
If these exams conflict with scheduled university activities, such as tutorials, lectures, or labs, please contact me.
I expect you to write both midterm exams.

Final Exam:

There will be a final exam during the April exam period.
The date is centrally scheduled, and normally finalized in late February.
Do not plan April travel before you know the exam schedule.
You must write the final exam to get credit for this course.

Supplementary Course Material:

I will distribute any course material via the "Moodle" site for PHYS 110.
I expect that this material will include guidance about what material to study in preparation for lectures and exams.

Assignments:

Assignments will be assigned and due approximately weekly.
Assignments will be administered through www.masteringphysics.com
The course-ID you need is: **PHYS110UVIC201401**
I have chosen to administer assignments though this system because the interactive features provide prompt feedback that will help you learn the material.

Accommodations:

I am willing to arrange reasonable accommodations for:

- Missed exams due to illness or other severe affliction;
- Missed assignments or course deadlines due to illness or other affliction;
- Conflicts between classes or examinations and your religious observances;
- Issues documented through RCSD; and
- Other issues.

If you miss an exam for any reason, I expect you to contact me as soon as possible after the exam. If you anticipate missing a course requirement, I expect you to contact me a reasonable amount of time in advance.
If something comes up that adversely affects your performance, please talk to me. I can't help you if I don't know about the problem.

You may ONLY use a non-programmable, non-graphing calculator for exams. Examples of acceptable calculators are the Sharp EL-510R or EL-510RNB; they can be bought in the Bookstore for about $10.

Keys to Success

Don't cheat on exams, assignments, or in your labs. Cheating, plagiarism, and other forms of academic fraud are taken very seriously both by the instructors and the University. The *Policy on Academic Integrity* can be found in the Undergraduate Calendar on pages 32-33. It is available online at:

http://web.uvic.ca/calendar2013/FACS/UnIn/UARe/PoAcI.html

You should note that the typical penalty for cheating on an exam is being assigned the grade F in the course. If I have a reasonable apprehension that an academic integrity violation has occurred then I may take this into account in my exercise of academic judgment when assigning grades; this is separate from any disciplinary process.

There are several places where you can get help, both with Physics and with other issues:

- The Physics Aid Center (drop-in Physics Q&A held in Elliot 038)
- The Learning Commons (help with Math, Writing, and Learning Skills.)
- Your instructors. We have office hours for a reason.
- Resource Centre for Students with a Disability (472-4946)
- Counseling Services (721-8341)

Keys to success:

- Attend lectures – you won't be exposed to the material if you don't.
- Read the text – the text explains things in a slightly different way from me; having access to different perspectives will help you synthesize the material.
- Read the workbook – I have chosen the problems in it to serve as examples of the concepts we believe are important.
- Do the assignments – I choose the problems to help teach the principles that are important for learning.
- Study – I expect that this class will take you around 12 hours per week between classes, labs, assignments, and studying.
- Ask for help if you find yourself falling behind.

What I expect you to do:

- Read the text prior to coming to lecture.
- Work through problems in the workbook as the material is covered.
- Start your assignments well before the due date.
- Study continually; this isn't a class you can do well in with a "cram and memorize" strategy.

Marking and Grades:

To obtain credit in the course you must:

- Have a satisfactory score on the final (end-of-term) exam. In the past a score of 40 has been minimally satisfactory.
- Complete all labs *and* have satisfactory standing in the labs.
- Have a score above 50 based on the following method of calculation:

	Scheme 1	Scheme 2	
Assignments	12	12	approximately weekly
Lecture participation	3	3	
Labs	15	15	all labs must be completed
Midterms	10	20	
Final Exam	60	50	

Your mark will be calculated from the scheme that gives the higher score.

The University of Victoria has a standardized conversion between percentage grades and letter grades. This marking scheme is:

A+	90-100	B+	77-79	C+	65-69	F	0-49
A	85-89	B	73-76	C	60-64		
A-	80-84	B-	70-72	D	50-59	N	Not Complete

In all cases, I will use your score (as determined above) to guide the assignment of a percentage grade. The meanings of the percentage grades are explained in the current Undergraduate Calendar; the descriptions can be found on page 37, or online at http://web.uvic.ca/calendar2013/FACS/UnIn/UARe/Grad.html. I will ensure that assigned grades correspond to these narrative descriptions.

Marks in individual components typically roughly correspond to the following grades:

Exams:	0-40: F	40-60: C/D	60-80: B-range	80-100: A-range
Assignments:	0-50: F	50-80: C/D	80-100: A or B-range	
Labs:	0-50: F	50-70: D	70-100: A through C-range	

I do not grade on a curve. In the past, courses like this have typically had roughly the following grade distribution:

A-range: 20%, B-range: 40%, C/D-range: 30%, F: 10%

I will review all lab marks prior to assigning a final grade; I will review all final grades assigned.

The grade E is a failing grade which offers the possibility of a supplemental examination, contingent on your performance in other courses. I will normally not offer supplemental examinations, and so will normally not assign the grade E.

The grade N is a failing grade that indicates that you did not complete the required course work. We will assign an N if you do not write the final exams, if you do not complete all labs, or if you do not have satisfactory standing in the labs.

Lecture participation:

I use the iClicker personal response system. You need to purchase a clicker. At the bookstore, new second generation iClickers cost about $47.50. Used first-generation iClickers are about $31. In the past, iClickers have been eligible for the bookstore's 'rental' or 'buyback' program.
Note: clickers are being increasingly used across campus, so you will almost certainly use them for multiple courses.

A small percentage of your final mark (3%) will be based on your in-class participation and performance with the iClicker Personal Response System. PHYS 110 uses the iClicker Personal Response System as a means of encouraging you to attend lectures and to participate in problem solving exercises that serve to increase your ongoing engagement and involvement with the course, and to provide you with immediate feedback regarding your understanding of the class material.

To obtain this credit, you need to participate in class by using your clicker on at least 80% of the days in which participation is recorded (if you participate less than 80%, your 3% will be prorated according to the schedule 60-80%: 2%, 40-60%: 1%, 0-40%: 0%). You don't have to answer the questions correctly, just provide any response and you'll be credited. Clicker questions are used in most (but not all) lectures.

To receive clicker participation points, students must bring their own clickers to class. The website of UVic Learning Systems provides information on iClickers, including how to register your clicker: http://elearning.uvic.ca/iclicker/students

To receive clicker participation points, students must do the following:
1) You must obtain a UVic computer account (Netlink ID) to use the clicker system. Instructions for obtaining a Netlink ID are provided here:
http://www.uvic.ca/systems/services/loginspasswords/netlinkid/index.php

2) Register the iclicker on-line. Go to this web site
http://elearning.uvic.ca/iclicker/students and follow the steps.You start by logging into USource using your UVic NetLinkID. Your clicker ID is on the back of the device and on the led screen of the second generation models when you turn them on. **If you don't register your clicker for the course on this site (above), you won't receive any clicker points.**

3) Bring your own clicker to class every day, and use it.
- It is an academic infraction to use or bring another student's clicker to class, or to lend your clicker to another student. This will be treated similarly to other academic infractions (such as cheating on an exam) and will be subject to university disciplinary procedures. Please remember that the clickers provide you with an opportunity to enhance your in-class learning, and it is expected you will cooperate in making the system work to help you and your colleagues learn.