BIT 1002A: Physics I: Course Information

Lectures	Monday and Wednesday 1.05 p.m. – 12.55 AP 132
Lecturer	Peter Watson **Office:** HP 3348 (Herzberg Building) **Office Hours:** Tuesdays 1-4 p.m. (In fact, most of the time) **E-mail:** watson@physics.carleton.ca (please put BIT 1002 in title)
Text	Giancoli, Physics 6ed, available at the Carleton Bookstore or an online bookstore.
Laboratory	Laboratory Manual For BIT 1002 available at the College of Natural Sciences Stores, 188 Steacie Bldg. 6 Soft Cover Lab Report Booklets: this is optional as some students prefer to type their own reports. However, you will still need to plot your own graphs.
Laboratory Schedule	Alternate Fridays 8:35-11:25 am in 4160 Herzberg Building Lab Supervisor: Igor Ivanovic, **Office:** HP 3346 (Herzberg Building) **E-mail** igor@physics.carleton.ca TA: Maria Fernandes: lgarciaf@physics.carleton.ca There are 6 labs during the term (schedule below) and you will be submitting a lab report for each lab. You will be assigned a lab partner during the first lab. While the labs are done with a partner, the reports must be written independently. It is an Instructional Offense to copy a lab report written by another student.
Tutorials / Tests	Alternate Fridays 8:35-11:25 am in 4160 Herzberg Building The format of the tutorials is a 1 hour tutorial followed by a 30 minute test. During the tutorial, students will work in teams to solve a few problems similar to the more difficult problems in the text. Once the team has solved the problem, each individual will then be tested on a similar set of problems and will be asked to write down a detailed description of how the problem was solved. Marks are allocated for showing how the problem was solved as well as for accuracy.
In-class tests	Approximately once a week there will be a 10 minute in-class test. It will be multiple-choice in form and will cover the material of the preceding few lectures.
Lecture Notes	Lecture notes (either on-line or pdf files) can be found via WebCT or directly from my website http://www.physics.carleton.ca/~watson/. Note that, during most lectures, problems will be solved on the blackboard interactively with the class. These problems will not be in the notes but you are responsible for them at exam time.
Laptops	Laptops are to be turned off throughout the lectures.
WebCT	These are both completed using WebCT6 To access these you need a computer connected to the internet running a web-browser such as : Netscape v7.2 or higher, Internet Explorer v 6 or higher. WebCT is available from the Carleton home page, and you will be automatically given an account in all the courses you are registered in which make use of WebCT. To access the WebCT account you will first need a Student Computing Account (SCA): :Go to https://connect.carleton.ca/secure-cgi/newuser.html and fill out the fields.

BIT 1002A: Physics I

Pre-class quizzes	1. First, read the appropriate chapter in the text, then answer the 5 qualitative questions within 15 minutes. 2. Click on the icon labeled "assessments" and you will see the list. Check the due dates on the list – the deadline is usually Sunday at midnight. If you are within the time limit, the title will be coloured red. 3. To begin a test – click on the title and you are brought to a page with a table on the right hand side summarizing your progress, the questions are on the left hand side. Note the clock starts as soon as you display the page. 4. Click on the answer you think is correct and when you are sure about your answer, click "save answer". You will see the progress table updated and one of the red stars will change to green. 5. Continue on through the five questions and when you have completed them, click on "Finish". It will ask if you wish to submit the quiz for grading – click "OK. 6. Finally click on "view results" to see how you did and find your score. Note that in general, there are no second chances with quizzes except for the first quiz where there are 2 chances so that you might familiarize yourself with the system.
WebCT assignments	These will be done <u>after</u> we have completed the material in class. They will work in the same way as the quizzes except that the questions will be quantitative (you will have to give a number as part of the answer) and you will get two chances for each assignment.
Final Exam	The final exam will consist of a combination of short answer questions (similar to level 1-2 questions in your text) and longer answer questions (similar to level 2-3 questions in your text). Sample midterms and final exams will be available on WebCT. The final exam will be scheduled during the regular examination period at the end of the term. It is the responsibility of the student to be present during this period; in particular, holiday travel plans must not be made before the exam schedule is known. You will be able bring a double-sided 8.5" x 11" handwritten memory aid sheet containing any information you want.
Deferred Exams	Deferred exams are generally only granted to students who cannot take the regularly scheduled exam due to illness. Students must present a doctor's note to the Science Registrar within 5 working days of the date of the final exam. Note that to qualify for a deferred exam you must have completed the term work satisfactorily: this means you must have a minimum of 40% on your labs and tests, otherwise you will receive a grade of FND on the course.
Grading	Grading is based on 1. WebCT Pre-class tests (5%) 2. In-class Tests (5%) 3. In-lab tests (20%) 4. WebCT Assignments (10%) 5. Laboratory (30%) 6. Final Exam (30%). In order to pass the course, you must write the final exam and do all the labs. Missing labs must be accounted for with a valid, documented reason (usually medical).

BIT 1002A: Physics I

Make-up Policy	There will be make-up labs near the end of term if a documented reason for your absence has been provided. There will be **no** make-up tests in this course. The dropping of the lowest score is intended to accommodate students who miss one test due to hospitalization, illness, family emergencies, mental stress, athletic events, etc. Both the lowest pre-class quiz score and the lowest WebCT mark will be dropped: there will be **no** makeup quizzes or extensions.
Students With Disabilities	Students with disabilities requiring academic accommodations are encouraged to contact the Paul Menton Centre for Students with Disabilities (500 Unicentre) to complete the necessary forms. After registering with the Centre, meet with the course instructor in order to discuss your needs at least two weeks prior to the first test or exam. The student must then make an appointment to discuss their needs with the instructor at least two weeks prior to the first class or ITV test. This will allow sufficient time to process your request. Please note the following deadlines for submitting completed forms to the PMC for formally scheduled exam accommodations: November 4th, 2007 for Fall courses.
Religious Obligations	Students requesting academic accommodation on the basis of religious obligation should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student. Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services web-site for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.
Course Outline	Chapter 1: Introduction: units, significant figures, graphs and functions, approximations Chapter 2. Kinematics: Chapter 3. Kinematics: Vectors Chapter 4. Newton's Laws Chapter 6. Energy: Work, kinetic and potential energy Chapter 11: Vibrations and Waves Chapter 12: Sound Chapter 13: Temperature Chapter 14: Heat Chapter 15: Thermodynamics Chapter 23: Light and Geometric Optics Chapter 24: Physical Optics Chapter 27: Quantum Theory

BIT 1002A: Physics I

Lab/Test Schedule	Sept 14th Lab 1:Reaction Time Sept 21st. Test 1: Chapters 1,2,3 Sept 28th Lab 2:Density Oct 5th. University Day No labs/tests Oct 12th Test 2: Chapters 4,6 Oct 19th Lab 3:Atwood's Machine Oct 26th. Test 3: Chapters 10,11,12 Nov 2nd Lab 4:Spring Constant Nov 9th. Test 4: Chapters 13,14,15 Nov 16th Lab 5: Specific Heat Capacity Nov 23rd Test 5: Chapters 23,24 Nov 30th Lab 6: Simple Lenses