

UNIVERSITY OF TORONTO AT SCARBOROUGH

PHY A21H3 ---- PRINCIPLES OF MODERN PHYSICS ---- SPRING 2001

Professor Martin Lee

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Lectures: begin 10 January, end 6 April (except Reading Week 19-23 February)
Wednesday, 10 a.m. in H-216
Friday, 11 a.m. in H-216

Tutorials: Friday afternoons at 12, 1, 2 and 3. These will focus on problem solving, and will include a number of short **quizzes** for credit. The time of your tutorial section is posted in room S-503. Please see Dr. Quick (S-503B) if you have a conflict.

Problems: Practice problems will be assigned weekly to help you to master the mathematical aspects of the course and problem-solving techniques. For credit, your solutions must be staple together and handed in at the tutorial section in which you are registered. No solutions will be accepted except by your tutor at the beginning your tutorial. While the homework assignments will not be individually graded, you are strongly advised to hand them in, as handing them in will contribute to your tutorial mark, and some of the homework problems will appear (perhaps in modified form) on the term test and the final exam.

Drop-in Centre: Drop-in Centre hours are Thursday 10-12 and 2-4. The Drop-in Centre will be staffed by Dr. Quick and held in room S-503B. It will be moved to the Physics Resource Centre (S-503E) if numbers warrant.

Office hours: I am normally at Scarborough most Tuesdays, and every Wednesday and Friday. You are welcome to see me in my office at any time that I am in; if you do not find me there, please tell the secretary in S-631 that you wish to see me and leave a phone number and/or e-mail address. I will get in touch with you at the earliest possible time.

Laboratory: Five 3 hour sessions, every second week, as determined by your individual schedule; enter the lab via S-503D. Stuart Quick, S-503B, phone 287-7249, is in charge of the laboratory. The time of your lab section is posted outside room S-503. Please see Dr. Quick (S-503B) if you have a conflict.

Term Test: The term test will be on the evening of Wednesday 7 March from 5–7 p.m. in Rooms S–309, S-319 and H-214. Room assignments TBA.

MATERIALS

Textbooks: Physics FOR SCIENTISTS AND ENGINEERS, 5th edition, volume 2, by Serway (Saunders 2000), or the combined extended version "with Modern Physics" which includes volumes 1 and 2 (the non-extended version is inadequate, since it is missing 8 chapters of modern physics which are in volume 2 and in the extended version). There is a Study Guide and Student Solutions Manual for selected questions to accompany the text; copies will be available in the library and in the drop-in centre, and you may purchase them at the bookstore if you wish.

College Physics, 9th Edition, by Buecke and Hecht (Schaum's Outlines, McGraw-Hill). This inexpensive book has concise summaries of the course material as well as many worked examples and many supplementary problem with solutions.

Lab Manual: PHYSICS A10H3F, A20H3F, A21H3S Laboratory Manual 2000/2001

Lab Workbook: University Physics Notebook (black cover)

Calculator: Any scientific calculator will be adequate. Only calculators that have no alphanumeric keyboard may be used for the quizzes, term test and the final exam.

Materials except the lab manual are sold in the Bookstore; manuals are sold in S-631.

PREREQUISITES AND COREQUISITES

PHY A10F or PHY A20F are required prerequisites; you must also be enrolled in MAT A26Y or MAT A24S or MAT A29Y, as a corequisite. Any special circumstances must be approved by the professor in charge of PHY A21H3; otherwise your registration in this course may be cancelled.

MARKING SCHEME

Laboratory	25%	(attendance, lab notebook, two formal reports)
Tutorials ...	10%	(participation in tutorials including problem sets and quizzes)
Term test	25%	
Final exam	40%	

If you miss a test, homework assignment or lab report you will be given zero unless you provide **ME** with an acceptable explanation in writing. In the event of illness, a doctor's certificate must also be provided.

HONESTY

With the exception of exams, tests, and quizzes, you may discuss problems and homework assignments with others **so long as what you turn in is your own work**. Any discussions are part of the learning process; once you learn how to solve a problem you are expected to solve it by yourself, and the solution you turn in must be your own work. It is a serious academic offence to turn in any solution that has been copied from the work of someone else.

WEB PAGE

The course web page can be accessed from: <http://www.scar.utoronto.ca/~physsci/physics/>

by selecting "course info" then "PHYA21H". On the web page you will find the course outline (this document) and lecture schedule, as well as lecture notes for past lectures and the current homework assignment. You will need to enter a user name (phy21) and a password (to be supplied in class) to access the lecture notes and the homework assignments.

updated 17 January 2001