

COURSE NO: **PHYS 1050** **TITLE: Physics 1: Mechanics**
 Web Site: http://www.physics.umanitoba.ca/~sharma/phys_1050/

LECTURES

A01 Slot 2 Dr. K. Sharma 474-6181	MWF 509 Allen Bldg	9:30 a.m.	201 Allen Bldg Consultation Times: 1:30-2:30 pm (Tu, Th)
A02 Slot 2 Dr. G. Williams 474-6192	MWF 336 Allen Bldg	9:30 a.m.	100 St. Paul's College Consultation Times: 10:30-11:30 am (MW)
A03 Slot 8 Dr. C.-M. Hu 474-6189	MWF 332 Allen Bldg	1:30 p.m.	343 Drake (until approx. Sept. 15 – under construction) 408 Tier (after approx. Sept. 15) Consultation Times: 2:30-3:30pm (MW)

LABS/TUTORIALS Room 403-405 Allen

The **first** laboratory in PHYS1050 is during the week of September 8-12, 2008. Students **must** attend the lab in the slot chosen at registration time. Go to Room 403 Allen, at first, from where you will be assigned to either of Rooms 403 or 405.

You should have, at the first laboratory, the PHYS 1050 Laboratory Manual and the laboratory notebook (below).

The schedule of laboratory activities is provided on page 3 of this document. Dr. H. Kunkel, Room 402G, is in charge of all lab sections. The lab sections and slots are:

B01	Slot 21 Monday	2:30-5:30 p.m.
B02	Slot 22 Tuesday	8:30-11:30 a.m.
B03	Slot 23 Tuesday	2:30-5:30 p.m.
B04	Slot 25 Wednesday	2:30-5:30 p.m.
B05	Slot 27 Thursday	2:30-5:30 p.m.

REQUIRED TEXTBOOKS & MATERIALS

Halliday, Resnick, and Walker, *Fundamentals of Physics*, 8th edition (Wiley)

PHYS 1050 Laboratory Manual 2008-2009

Hardcover "Physics Notes" laboratory notebook

Audience Response System (Clickers) – the iClicker audience response system will be used to tabulate student responses to questions during class. It is recommended but not mandatory that you obtain a clicker.

WileyPlus – computerized tutorials and tests will be provided using the WileyPlus system. More details will be provided by your instructor.

EVALUATION PROCEDURE:

Laboratory reports (5)	20%*
Tutorial tests (3)	9%*
Term test	20%
WileyPlus	6%
Final exam	45%
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Total	100%

NOTE: Students having taken PHYS 1050 within the last 2 years MAY APPLY for an exemption from the laboratory component of the course in 2008-09, provided that their performance in the laboratory exceeded a minimum standard of 60% on at least 4 labs. To apply for an exemption, students MUST see Dr. G. Williams (336 Allen) in person on or before September 15, 2008. Students who receive an exemption will have their previous laboratory mark credited directly towards the 2008-09 mark for PHYS 1050, as outlined above.

***Note that an important component of the course mark is based on tutorial tests, which are conducted in the laboratory sessions. Students who obtain a lab exemption are still required to write the tutorial tests in the time tabled slot. See the attached schedule for dates of tutorial tests.**

SCHEDULE OF TERM WORK AND TESTS:

Three tutorial tests	(see attached schedule)
WileyPlus schedule	TBA
Five laboratory reports	(see attached schedule)
Midterm test	Thursday, October 16, 2008, 7:00-9:00 p.m.
Final exam	December, to be scheduled by Student Records

POLICY ON MISSED TESTS/TUTORIALS

No rewrites are given for the mid-term test. If you miss the mid-term test for a legitimate, documented reason, then the weight of the final exam will be increased to 65%. If you cannot attend a tutorial due to illness or some other **legitimate** reason, then you **may** be given permission to write the test in a different section during the same week. **Missed tests for any other reason count as zero!** Consult the introductory section of the PHYS 1050 Laboratory Manual (2008-2009) (page 4) for more details.

POLICY ON LABORATORY ATTENDANCE AND SUBMISSION OF LAB REPORTS

Attendance at **all** laboratory sessions is mandatory. However, in order to pass the course, students are required to complete at least four out of the five experiments scheduled in the laboratory sessions. Credit for a completed lab requires that a lab report be submitted, with the raw data signed by the Teaching Assistant.

Laboratory reports are generally due 24 hours after the end of the laboratory period (extensions may be granted on occasion), and must be submitted to the designated box outside the first year physics laboratories, Allen Bldg. Rooms 403-405. Consult the introductory section of the PHYS 1050 Laboratory Manual (2008-2009) (pp. 2-3) for more details.

**PHYS 1050 Lecture/Laboratory/Tutorial/Test Schedule
Fall 2008**

Week	Date	Lecture	Topic	Laboratory/Tutorial/Test
1	F Sep 5	1	Translational Kinematics Chapter 2 Chapter 3 Chapter 4	NO LABS OR TUTORIALS
2	M 8	2		Introductory Experiment, Error analysis. Laboratory rules
	W 10	3		
	F 12	4		
3	M 15	5		NO LABS OR TUTORIALS
	W 17	6		
	F 19	7		
4	M 22	8	Translational Dynamics Chapter 5	Expt. 1: Motion Down a Frictionless Incline
	W 24	9		
	F 26	10		
5	M 29	11	Chapter 6	TUTORIAL 1
	W Oct 1	12		
	F 3	13		
6	M 6	14	Work and Energy Chapter 7	Expt. 2: Centripetal Force
	W 8	15		
	F 10	16		
7	M 13		NO LECTURE (Thanksgiving)	NO LABS OR TUTORIALS
	W 15	17	Chapter 8	
	Th 16		MID-TERM TEST (7:00 p.m. - 9:00 p.m.)	
	F 17	18		
8	M 20	19	Linear Momentum and Collisions Chapter 9	Expt. 3: Potential Energy
	W 22	20		
	F 24	21		
9	M 27	22	Rotational Kinematics and Dynamics Chapter 10 Chapter 11	TUTORIAL 2
	W 29	23		
	F 31	24		
10	M Nov 3	25	Special Relativity Chapter 37	Expt. 4: Elastic Interaction
	W 5	26		
	F 7	27		
11	M 10	28	TUTORIAL 3	NO LABS OR TUTORIALS
	W 12	29		
	F 14	30		
12	M 17	31	TUTORIAL 3	NO LABS OR TUTORIALS
	W 19	32		
	F 21	33		
13	M 24	34	TUTORIAL 3	NO LABS OR TUTORIALS
	W 26	35		
	F 28	36		
14	M Dec 1	37	TUTORIAL 3	NO LABS OR TUTORIALS
	W 3	38		

HOMEWORK PROBLEMS

Perhaps the most important thing you will learn from this course is how to think logically and solve problems. This is an important skill that can be applied to any subsequent area of study. Solving problems yourself and discussing them with your instructor and your classmates is the best way to learn.

A list of recommended problems will be announced in lectures and the web page. You should solve all of these problems, attempting them as the material is discussed in class. Be cautioned that reading solutions prepared by someone else is no substitute for working them out yourself. Note that numerical answers for odd numbered questions and problems are given in the back of the textbook. If you have extra time, it is always advisable to work on additional problems from the textbook. Note also that previous years tests and solutions are provided for your reference in the Laboratory Manual.

Additional aids to solving problems and understanding the important concepts are available on the Wiley website: www.wiley.com/college/halliday. Click on the student companion guide icon for the 8th edition of Halliday, Resnick and Walker, where you can explore several helpful resources, including Interacting Learningware, Concept Simulations, and Problem Hints and Solutions.

PLAGIARISM AND CHEATING (University of Manitoba Undergraduate Calendar, p. 28)

To plagiarize is to take ideas or words of another person and pass them off as one's own. In short, it is stealing something intangible rather than an object. Obviously it is not necessary to state the source of well known or easily verifiable facts, but students are expected to acknowledge the sources of ideas and expressions they use in their written work, whether quoted directly or paraphrased. This applies to diagrams, statistical tables and the like, as well as to written material, and materials or information from Internet sources. To provide adequate documentation is not only an indication of academic honesty but also a courtesy which enables the reader to consult these sources with ease. Failure to do so constitutes plagiarism. It will also be considered plagiarism and/or cheating if a student submits a term paper written in whole or in part by someone other than him/herself, or copies the answer or answers of another student in any test, examination, or take-home assignment.

Plagiarism or any other form of cheating in examinations or term tests (e.g., crib notes) is subject to serious academic penalty (e.g. suspension or expulsion from the faculty or university). A student found guilty of contributing to cheating in examinations or term assignments is also subject to serious academic penalty.

EXAMINATIONS: PERSONATIONS (University of Manitoba Undergraduate Calendar, p. 27)

A student who arranges for another individual to undertake or write any nature of examination for and on his/her behalf, as well as the individual who undertakes or writes the examination, will be subject to discipline under the university's Student Discipline Bylaw, which could lead to suspension or expulsion from the university. In addition, the Canadian Criminal Code treats the personation of a candidate at a competitive or qualifying examination held at a university as an offence punishable by summary conviction. Section 362 of the Code provides:

Personation at Examination

362. Every one who falsely, with intent to gain advantage for him/herself or some other person, personates a candidate at a competitive or qualifying examination held under the authority of law or in connection with a university, college or school or who knowingly avails him/herself of the results of such personation is guilty of an offence punishable on summary conviction. 1953- 54,c.51,s.347.

Both the personator and the individual who avails him/herself of the personation could be found guilty. Summary conviction could result in a fine being levied or up to two years of imprisonment.

FACULTY OF SCIENCE STATEMENT ON ACADEMIC DISHONESTY

The Faculty of Science and The University of Manitoba regard acts of academic dishonesty in quizzes, tests, examinations, laboratory reports or assignments as serious offences and may assess a variety of penalties depending on the nature of the offence.

Acts of academic dishonesty include, but are not limited to bringing unauthorized materials into a test or exam, copying from another individual, using answers provided by tutors, plagiarism, and examination personation.

Note: cell phones, pagers, PDAs, MP3 units or electronic translators are explicitly listed as unauthorized materials, and must not be present during tests or examinations.

Penalties that may apply, as provided for under the University of Manitoba's Student Discipline By-Law, range from a grade of zero for the assignment or examination, failure in the course, to expulsion from the University. The Student Discipline By-Law may be accessed at:
http://umanitoba.ca/admin/governance/policies/section_1200/1202.shtml

Suggested minimum penalties assessed by the Faculty of Science for acts of academic dishonesty are available on the Faculty of Science web-page:

(<http://umanitoba.ca/science/student/webdisciplinedocuments.html>)

All Faculty members (and their teaching assistants) have been instructed to be vigilant and report all incidents of academic dishonesty to the Head of the Department.