University of Ottawa

DEPARTMENT OF PHYSICS

PHY1124B

Winter 2016

(Jan 11 – Apr.12)

Instructor: **Prof. Andrzej Czajkowski**
Office: room 220, MacDonald Hall
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Class Website: PHY1124B accessed through Virtual Campus /only registered students may access it! /

EMERGENCY Phone: 562 5800 ext: 6760

LECTURES:	**MONDAY**	**8:30 – 10:00**	**MCD 146**
	THURSDAY	**10:00 – 11:30**	**MCD 146**
DGD :	**TUESDAY**	**16:00-17:30**	**UNI AUD**

DGD sessions are not mandatory but they are strongly recommended.
Their goal is to further help you in your problem solving skills.
DGD are conducted by the Graduate Assistants.

Office hours: If you have just one quick question regarding the course, please wait for me after lecture in the main lobby of MCD146, and I will answer it right away. For more complex issues please see me during my office hours:
Wednesday: 11:30 - 13:00 Thursday: 11:30 - 13:30;

Test Dates:

Test 1	**:**	**Feb 8 MON**	**8:00AM-9:40AM**	**MCD146**
Test 2	**:**	**Mar 14 MON**	**8:00AM-9:40AM**	**MCD146**
Final Test	**:**	**3hrs CLOSED BOOK. TO BE ANNOUNCED BY THE FACULTY OF SCIENCE**		

COURSE MARK COMPONENTS:

Assignments TOTAL:	10 %	(**A** assignment grade out of 100)
2 Midterms	30 %	(**M** midterm grade out of 100)
Pre-Lecture Quizzes	5%	(PQ pre-lecture quiz out 100)
Final Test	55%	(**F** final exam out of 100)
Extra Credit		bonus porins scored gainst the final exam mark. /optional/

COURSE GRADE CG = 0.1 x A + 0.3 x M + +0.05 x PQ + B
LABORATORY L (out of 100%)

FINAL GRADE (TO FACULTY) = 0.8 CG+0.2L

Letter Grades submitted to Faculty:

90-100	A+	;	85-89.99	A	;	80-84.99	A-	;	75-79.99	B+	;	70-74.99	B
66-69.99	C+	;	60-64.99	C	;	55-59.99	D+	;	50-54.99	D	;	40-49.99	E
0-39.99	F													

MIDTERM TESTS:

There are two tests in the fall semester. Together they are worth 30% of the course grade.
The midterm with a higher score will be worth 20% of the course grade. The midterm with a lower score will be worth 10% of the course grade. Each test will be marked within 10 working days from the day it was administered (that means: up to two calendar weeks!)

ASSIGNMENTS:

There will be up to 6 bi-weekly assignments. Each comprised of 10 to 12 problems of equal value.
These assignments are available as pdf files. The assignment sheets have to be printed out and filled. The completed assignments will have to be returned to the drop-off box in the MCD Hall (2nd floor) by the time specified (typically by Friday 6PM). There might be one or two of online assignments (to be solved on the Virtual Campus) with mostly MC questions. At the end the total point value for all assignments will be announced and converted to 10 % (for example: 250p = 10%)

PHYSICS LABORATORY:

The Lab is run independently from the rest of the course. I am not responsible for it.
To learn about the duties and scheduling please visit the laboratory website on virtual Campus
After the semester is over the final grade for the whole course will be calculated using following scheme:

0.80 x (Course Mark in % out of 100) + 0.20 x (Laboratory Mark in % out of 100)

TEXT: **Serway Jewett "Physics for Scientists and Engineers. /9th Ed. / Thomson Nelson/**

OTHER REFERENCE MATERIAL: Lecture notes available online as pdf file

COURSE DESCRIPTION (THE CALENDAR)

Review of kinematics, reference frames and relative motion. Newton's laws of motion, forces and fields. Work, energy and power. Oscillator motion. Electrostatics and Gauss' law. Magnetic fields and forces. Introduction to special relativity

Linear Mechanics		I	Kinematics	(2ch)
(7chapters/ 8 lectures)		II	Forces and Newton's Laws	(2ch)
		III	Energy, Work and Power	(2ch)
		IV	Linear Momentum	(1ch)
Rotational and Vibrational Mechanics		V	Harmonic Oscillator	(1ch)
(3.5chapters/3 lectures)	/Optional/	VI	Rotation of Rigid Body	2.5ch)
Electricity		I	Electric Force and Electric Field	
		II	Gauss Law	
		III	Electric Potential	
		IV	Capacitance	
		V	Resistance, Current, and Potential in DC circuits	
Magnetism		I	Magnetic Force and Magnetic Field	(1ch)
		II	Amperes Law	(1ch)
	/Optional/	*III*	*Faraday's Law*	*(1ch)*
	/Optional/	*IV*	*RLC circuits*	*(1ch)*
	/Optional/	*IV*	*Maxwell's Laws and EM Waves*	*(1ch)*
Relativity	*/Optional/*	I	*Introduction to Special Relativity*	(1ch)

Information regarding missed Midterm Test.

•The only valid reason for missing the midterm are:

1) sickness confirmed by the note from physician. The note has to be dated on the date of the test or before it, clearly indicate that student was sick on the date of the test.

2) serious injury and/or hospitalization – the note from the hospital will do.

3) representing university as an athlete, scholar or researcher

• If you missed the test - contact me as soon as you are back in school. I would prefer to see you in person – visit me with the original doctor's note (during office hours or by appointment).
• I will need to have xero-copy of the doctor's note, stapled to the brief letter explaining your situation.
• Your name, student number, date of the test etc. should be stated clearly in your letter.
• I will decide on the form of the supplementary evaluation after all of the students who missed the test have contacted me.

• Be patient – most likely your make-up midterm test will happen at the end of the semester-last week of classes .

It is student's responsibility to attend supplementary midterm:
I will announce the time date and place during the lecture within last week of classes as well as on the class website, but I will not be repeating myself over and over.

Academic Fraud /Cheating/:

• It should be remembered that the consequences of cheating during tests and examinations are much more severe than just obtaining F in the course!

• The details of Academic Fraud are outlined in Academic regulation 14 - Academic fraud and other information: http://www.uottawa.ca/administration-and-governance/academic-regulation-14-other-important-information

• IT IS STUDENT RESPONSIBILITY TO SIT AWAY FROM STUDYING PARTNERS DURING TEST! In the instant when two identical papers are found from students sitting side by side we will naturally presume that cheating took place:

I am making these comments hoping that this issue will never have to be discussed again in our class. **(Just don't do it!)**

Contesting the Test Mark:

After the return of the examination booklets, students will have one week to contest the way the test was marked.
To ask for the mark review student needs to do the following:

i) attach the examination booklet to a brief letter explaining where all the extra marks should have been awarded
ii) deliver the paper to the Physics Office in MacDonald Building , and ask (politely!) secretary to write the time and hour when the it was received by her (on the exam booklet cover).

Your paper will reach me with the rest of my mail. I will respond to your requests within two weeks. If I need further explanation, I will contact you. If your mark is not changed, it means that no change was deemed necessary. You will need to pick your paper from my office, after the grades have been changed.

Additional Notes: