University of Ottawa
DEPARTMENT OF PHYSICS
PHY1321A and PHY1331A
Principles of Physics I
Fall 2017
(Sept. 5 – Dec.6)

Instructor: **Prof. Andrzej Czajkowski**
Office: room 2, KED 562
Email: only for very important class communications please use aczajkow@uottawa.ca
Class Website: PHY1321 accessed through BRIGHTSPACE/only registered students may access it! /
Facebook: To be set up by students. Use PHY1321/31 Fall2017 as name. There are few existing courses with similar names. It is better if you don't use them to avoid confusion.
Please keep it open, so I can join – in the past I found this was the fastest way to communicate with my students. For obvious reasons keep this site clean and civil – no profanities please.
EMERGENCY Phone: 562 5800 ext: 6760

Office hours: If you have just one quick question regarding the course, please wait for me after lecture in the main LOBBY of MRN Hall (near the main entrance to the building), and I will answer it right away. For more complex issues please see me during my office hours:
Monday: 14:30 - 15:50; Wednesday: 10:00 – 11:20; Tuesday 9:00 -- 9:50

LECTURES:

		MONDAY	**13:00 –**	**14:30**	**MRN 150**
		WEDNESDAY	**11:30 –**	**13:00**	**MRN 150**
1331A	**only**	**MONDAY**	**17:30 –**	**19:00**	**MNT 203**

DGD Schedule for PHY1321/1331A

MONDAY	14:30 - 16:00	B38	MRT 205	(118seats)	Zachary
TUESDAY	10:00—11:30	A40	MRT 212	(115seats)	Joseph
TUESDAY	10:00—11:30	A41	MRT 205	(118 seats)	Aidan
WEDNESDAY	10:00 - 11:30	B39	MNT 201	(89 seats)	Ludmila
WEDNSADY	10:00 - 11:30	A39	MRT221	(56 seats)	Daixi
WEDNESDAY	17:30 - 19:00	A37	FTX 232	(75seats)	Zachary
FRIDAY	8:30 – 10:00	A38	TBT070	(98seats)	Daixi
FRIDAY	13:00 - 14:30	B37	STE A0150	(124seats)	Ludmila

It does not matter which group is attended! Since first few DGDs are really well attended wait till the end of September to change the group – if this is what want to do.

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.

Test Dates:

Test 1	**Saturday**	**OCT 14**	**10:00 - 11:40**	**Rooms will be posted online**
Test 2	**Saturday**	**NOV 11**	**10:00 - 11:40**	**Rooms will be posted online**

The actual writing time for each test will be 100 minutes (just like previous year tests).
The remaining time is dedicated to distribution and collection of the test material.

Final Test: **3hrs CLOSED BOOK. TIME AND PLACE TBA 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)
Final Test	50% -- 60 %	(**F** final exam out of 100)
Extra Credit	0% -- 10-%	(B this is bonus that subtracts weight from the final exam)
DGD quizzes	5%Other activities ??	

COURSE GRADE CG = 0.1 x A + 0.3 x M +(0.60 – 0.01xB) x F + 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		

ASSIGNMENTS:

There will be at least ten weekly assignments. Each assignment comprises 5 to7 problems. Each problem is worth 4 points. The assignments are available as pdf files. The assignment sheets need to be printed out and filled. The completed assignments will have to be returned to the drop-off box in the SITE BLD (4nd floor) by the time specified (typically by Friday 6PM). There might be one or two online assignments (to be solved on the BrightSpace) with more MC questions to practice. The Assignment mark will be established based on total score on all the assignments.

PHYSICS LABORATORY:

The Lab is run independently from the rest of the course. 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/**

Choose one of the two following options:

Pck. 1	Full textbook (hard copy) for students who are taking PHY1321 and are planning to take 1322 winter semester.
Pck. 2	VOLUME I only recommended for students who are taking PHY1321 and are **NOT** planning to take 1322 winter semester.

Other Reference Material:

Lecture notes available from the uOttawa Bookstore

COURSE CONTENT:

Thermal Physics	I	Introduction to Thermodynamics: Temperature and Pressure. Ideal Gas Equation
(4 .5 chapters)	II	Internal Energy, Work and Heat First Law of Thermodynamics
	III	Heat and work in the ideal gas processes
	IV	Kinetic Theory of Gases, Equipartition Theorem.
	V	Maxwell's Boltzmann Distribution of Speeds. Boltzmann Distribution of Energies
	VI	Heat Engines and Carnot Cycle
	VII	Second Law of Thermodynamics and Entropy
Fundamentals of Mechanics	I	Kinematics
(6 chapters)	II	Forces and Newton's Laws
	III	Energy and Work
	IV	Linear Momentum
	V	Centre of Mass
Rotational Mechanics	VI	Rotational Dynamics I
(2.5chapters)	VII	Rotational Dynamics II
Fluids Mechanics (0.5 chapter)	VIII	Static Fluids and Fluid Dynamics

Important Rules Regarding 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.

Tests will be marked within 10 working days form the day they were administered (two calendar weeks!).

Information regarding missed Midterm Test.

•The only valid reason for missing the midterm are:

sickness confirmed by the note from physician. (In case of serious injury and/or hospitalization – the note from the hospital).

representing school in sport events or conference. (Registered with me ahead of time)

observing religious holidays

• 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).

• 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 two days 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.

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

iii) put the letter and the booklet in an envelope

iv) write student's name number and class number (PHY1321) in the upper corner of the envelope. and address the envelope to Dr. A. Czajkowski, PHYSICS

vi) deliver the envelope to the Physics Office in MacDonald Building , and ask (politely!) secretary to write the time and hour when the envelope was received by her (on the envelope).

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.

Comment on Cheating:

In the instant when two identical papers are found from students sitting side by side we will naturally presume that cheating took place:

• IT IS STUDENT RESPONSIBILITY TO SIT AWAY FROM STUDYING PARTNERS DURING TEST!

• It should be remembered that the consequences of cheating during tests and examinations are much more severe than just obtaining F in the course! /Please check the regulations regarding Academic Fraud in the University of Ottawa calendar. http://www.uottawa.ca/academic-regulations/academic-fraud.html

I am making these comments hoping that this issue will never have to be discussed again in our class.

(Just don't do it!)

What is academic fraud? http://www.uottawa.ca/academic-regulations/academic-fraud.html

Academic fraud is defined as “any act by a student that may result in a distorted academic evaluation of that student or of another student.” Academic fraud occurs if you do any of the following:

- Plagiarize (copy) or cheat in any way (for more information on plagiarism and how you can avoid it, see the academic fraud section in the student guides).
- Submit work you have not completely written yourself (with the exception of quotations and references). This can include an assignment, an essay, a test, an exam, a research report or a thesis, whether you present your work in writing, orally or in another form.
- Present research data that has been falsified or made up in any way.
- Attribute a statement of fact or reference to a made-up source.
- Submit the same work or a large part of the same work in more than one course, or a thesis or other work that has been presented elsewhere without the prior approval of the appropriate professors or academic units.
- Falsify or misrepresent an academic evaluation, using a forged or altered supporting document or facilitating the use of such a document.
- Undertake any other action for the purpose of falsifying an academic evaluation.

SEXUAL HARRASMENT AND SEXUAL VIOLENCE

“The University of Ottawa does not tolerate any form of sexual violence. Sexual violence refers to any act of a sexual nature committed without consent, such as rape, sexual harassment or online harassment. The University, as well as student and employee associations, offers a full range of resources and services allowing members of our community to receive information and confidential assistance and providing for a procedure to report an incident or make a complaint.

For more information, visit www.uOttawa.ca/sexual-violence-support-and-prevention

We all have right to live in the violence-free environment. Profanities and sexually charged language may be treated as violating our rights not to be exposed to them.
They also desensitize us and blur the lines between what is still acceptable and what is offensive. It is best to act in such a way as to avoid potential controversies altogether.