

University of Ottawa  
**DEPARTMENT OF PHYSICS**  
**PHY1321A and PHY1331A**  
*Principles of Physics I*  
*Fall 2015*  
**(Sept. 9 - Dec.9)**

**Instructor:** Prof. Andrzej Czajkowski  
**Office:** room 220, MacDonald Hall  
**Email:** only for very important class communications please use [aczajkow@uottawa.ca](mailto:aczajkow@uottawa.ca)  
**Class Website:** PHY1321 accessed through Virtual Campus /only registered students may access it! /  
**Facebook:** To be set up by students Use PHY1321/31 Fall2015 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 ( and snoop on) my students. For obvious reasons keep this site clean and reduce professor-bashing to minimum.

**EMERGENCY Phone:** 562 5800 ext: 6760

### LECTURES:

	<b>MONDAY</b>	<b>13:00 - 14:30</b>		<b>Marion Auditorium</b>
	<b>WEDNESDAY</b>	<b>11:30 - 13:00</b>		<b>Marion Auditorium</b>
<b>1331A only</b>	<b>MONDAY</b>	<b>17:30 - 19:00</b>		<b>Marion Auditorium</b>

### DGD Schedule for PHY1321/1331A

PHY1321A/31A Wednesday	DGD	10:00-11:30	MRT	Room: 250	68
PHY1321A/31A Wednesday	DGD	10:00-11:30	SITE	Room: A0150	124
PHY1321/31A Tuesday	DGD	10:00-11:30	LPR	Room: 285	53
PHY1321/31A Tuesday	DGD	10:00-11:30	SMD	Room: 430	67
PHY1321/31A Wednesday	DGD	10:00-11:30	SMD	Room: 430	67
<b>TOTAL SEATS:</b>					<b>379 enrolled 337</b>
PHY1321/31B Wednesday	DGD	10:00-11:30	LPR	Room: 155	88
PHY1321/31B Monday	DGD	14:30-16:00	SITE	Room: H0104	171
PHY1321/31B Friday	DGD	13:00-14:30	MCD	Room: 146	156
<b>TOTAL SEATS:</b>					<b>415 enrolled 401</b>

**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.**

**Sometime after first three weeks of school we might close down one of the groups and transfer remaining students to the others. Please pay attention to the website postings!**



## COURSE MATERIAL:

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

Choose one o 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 print shop in the basement of MacDonald Hall ( in the tunnel!).

## **COURSE CONTENT:**

<b>Thermal Physics</b> (4 .5 chapters)	I	Introduction to Thermodynamics: Temperature and Pressure. Ideal Gas Equation
	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
<b>Linear Mechanics</b> (6 chapters)	I	Kinematics
	II	Forces and Newton's Laws
	III	Energy and Work
	IV	Linear Momentum
	V	Centre of Mass
<b>Rotational Mechanics</b> (2.5chapters)	VI	Rotational Dynamics I
	VII	Rotational Dynamics II
<b>Fluids Mechanics</b> (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.

TEST will be marked within 10 working days form the day they were administered (that means: up to two calendar weeks!)

## Information regarding missed Midterm Test.

- The only valid reason for missing the midterm is sickness confirmed by the note from physician. (In the case of serious injury and/or hospitalization - the note from the hospital will do)
- 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 /Dec 2/.

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.

## 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./

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
- 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.