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PHYS1111 Spring Semester 2023

Introductory Physics - Mechanics, Waves and Thermodynamics

Syllabus:

27121 , Period 4: 11:30am - 12:20pm MWF Room 202 Physics Building.

27126 , Period 5: 12:40pm - 1:30pm MWF Room 202 Physics Building.

Course Instructor: Professor K K Mon
kkmon@uga.edu, Office: 223D, 542-3454

Multiple weekly help sessions by TA using ZOOM will be available, subject to assignment of TA to our sections of PHYS1111. This is to be announced.

Since I have 374 students and to provide 15 minutes for each students would amounts to 93 hours of office hours per week. Given this and other difficulties, in-person weekly office hours by the instructor is not cost-effective and will simply not be available for our very large introductory course. The time is better used for answering emails from students seeking help.

From my years of teaching experiences, students are better served by contacting Professor Mon using emails, versus waiting for the traditional weekly office hours and then, standing in line to get help. Answering large number of student emails are very time consuming for the instructor but emails are usually responded to within 24 hours or less.

For students who need to meet in-person, Professor Mon is always available in-person after each in-person lecture in Room 202 of the Physics Building. Please maintain social distance.

(Sec A) The course policy on absence from in-person lecture attendance.

Students are expected to attend all classes in-person and take tests in-person at the class period that they are registered. In other words, class attendance is required.

Since it is not practical to take attendance of large number of students on a regular basis, no record of in-person lecture attendance will be taken. Obviously, attendance will be taken for scheduled in-class tests.

[Your health, safety and well-being are of the highest concerns. If you are not well or in difficult circumstances, UGA wants you to immediately seek medical and professional help provided by UGA. See (Sec J) below for more information.

UGA instructors of this and other courses are not trained to help students in non-academic difficult situations and such students should seek help from UGA Student Affair Office.

(Sec B)-----

- I. Officially, UGA has returned to normal modus operandi. This course has in-person lectures MWF in Room 202 Physics Building. There are no online option.
UGA wants students to attend classes in-person. To discourage trauncy, this course has no ZOOM access. Lecture notes and handouts will not be posted online at eLC.
- II. Online homework assignments at Mastering Physics.

III. There will be two midterm-tests and another final-test. These will be in-person.

Do not discuss the test questions with anyone before, during or after taking the tests, until all the tests have been graded and scores posted. Any form of assistance will constitute cheating.

There will not be a standard 3 hours final exam.
The standard final exam is replaced by the final-test.

Dates and more specific details of the three tests will be announced.
The test average is calculated using only the two highest scores of the (midterm-test 1, midterm-test 2, final-test).
The lowest score of the three will not be counted.

If you have valid excuse for not taking a scheduled test, you must provide documentation. There will be no makeup tests. The score for a missing excused midterm-test will be replaced by the final-test's score. If you missed both midterm-tests for valid reasons, you should seek a withdrawal from the course.

IV. There is a separate lab component of this course, which is managed by the Lab coordinator with graduate Lab TA.

Academic integrity will be strictly enforced.

(Sec C)-----

Please note:

Instructors have well defined limits to their authority and cannot suspend the grading policy for a specific student. The department Head will have to review such request and intervene.

Students should contact UGA Student Affairs Office directly for help in difficult circumstances and assistance in dealing with academic responsibilities.

Grading Policy:

20% (Mastering Physics Online homework)
+ 40% (average of the two highest [midterm-test 1, midterm-test 2, final-test])
+ 40% (Lab)
= 60% lecture + 40% lab = 100%

The partition of the total grade into lecture (40% + 20%) and lab (40%) is guided by the course description for PHYS 1111-1111L (3 hours lecture and 2 hours lab per week), as listed on the UGA Course Bulletin at the Registrar website.

<https://bulletin.uga.edu/CoursesHome?cid=3899>

The letter grade will be assigned as:

A = 90 to 100
A- = 87 to 89
B+ = 83 to 86
B = 80 to 82
B- = 73 to 79
C+ = 66 to 72
C = 56 to 65

C- = 50 to 55
D = 46 to 49
F = 0 to 45

Standard rounding will be used for the final numerical grade. For example, 89.4999 will be 89 and A-, but 89.5 will be 90 and A.

There are no exception to these assignments.

All withdrawals will be processed in accordance with University policy as stated in the undergraduate bulletin. For withdrawals before the midpoint, a grade of "W" will be assigned for all cases.

(Sec D) Course materials:

1. Textbook:

This is for the two sections of PHYS1111 of Professor Mon only. Other sections of PHYS1111 may have different textbook policy.

"Physics, 5th ed" by J.S. Walker (Pearson). Mastering Physics is needed. Other editions, eText, paperback, or hardcover are all acceptable.

<https://www.pearson.com/us/higher-education/program/Walker-Modified-Mastering-Physics-with-Pearson-e-Text-Standalone-Access-Card-for-Physics-5th-Edition/PGM284039.html?tab=order>

2. You will need to enroll in the lab component of PHYS1111.

3. A simple basic scientific calculator is needed.

(Sec E) Homework assignment:

Frequent online homework assignments will be an important part of the course. Homework grade is 20% of your total score.

Help will be provided for doing the homework assignments.

Regular online ZOOM homework help session by TA will also be scheduled, subjected to availability of TA.

Since solutions will be posted after due date, do not ask for homework due date extension.

Students in difficult circumstance will be excused for the specific homework assignment due at that time.

All such request for excuse from homework must be submitted by email within one week of the due date with supporting documentation.

Students are reminded that fraudulent request are considered violation of UGA honor code and subjected to investigation. Equally important, UGA wants students in difficult circumstances to seek help and counseling from UGA. If students have difficulties in keeping up with academic, get help from UGA. See section F. Instructors are not trained and thus incompetent to advise students on non-academic situations.

Since homework solution will be posted after due date, excused student need not submit overdue assignments.

Excused homework assignments will not enter in the total number of homework assignments used to calculate homework grade average.

Independent of excused homework, the two lowest homework grades will be dropped in the calculation of grade.

To allow students to improve their homework grade, the last homework assignment will be optional and for extra credit only.

If there are a total of 16 homework assignments, hw_16 will be for extra credit only.

Homework grade:

$$= \frac{[(hw_1 + \dots \text{exclude \# of excused hw} \dots + hw_{15}) + hw_{16} - \text{two } hw_{\text{lowest}}] / (13 - \# \text{ of excused_hw})}{1}$$

Since extra credit is allowed, it is possible for students to have homework grade that is above 100%.

For example,
a student has

12 hw assignments with an average of 96 for a net score of 1152.
1 excused hw,
2 lowest hw with scores of 60 and 75 that has been dropped.

This accounts for the 15 "for credit" hw sets.

Student also did the "extra credit" hw_16 with an extra credit of 80.

Final hw average grade = $[1152 + 80] / 12 = 96 + 80/12 = 96 + 6.666 = 102.666$

There will be no other extra credit assignment. Please do not ask for exemption from course policy as stated in this syllabus.

(Sec F).....

If you are not well or in difficult circumstances, UGA wants you to immediately seek medical and professional help provided by UGA.

You are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

By contacting Student Care and Outreach in the Division of Student Affairs, they can also assist you with documentation to obtain relief from submitting your homework or taking the tests.

(Sec G).....
Learning from your peers can be valuable and encouraged but plagiarism is forbidden.

We will study chapters 1-14 and 16-18 of Physics by Walker.

Course Schedule: (Changes are possible and will be announced.)

date	#	Week 1 of PHYS1111	
01/09/2023	1	Chapter 1	Intro to physics.
01/11/2023	2	Chapter 2	One-dim kinematics.
01/13/2023	3		

phys1111_s23

	Week 2		
01/16/2023	Dr Martin L King Jr Day, No Class		
01/18/2023	4 Chapter 3	Vectors.	
01/20/2023	5		
	Week 3		
1/23/2023	6 Chapter 4	Two-dim kinematics.	
1/25/2023	7		
1/27/2023	8 Chapter 5	Newton's law of motion	
	Week 4		
1/30/2023	9		
2/01/2023	10		
2/03/2023	11 Chapter 6	Applications of Newton's laws.	
	Week 5		
2/06/2023	12		
2/08/2023	13		
2/10/2023	14 Chapter 7	Work and Kinetic energy.	
	Date of Test #1 and specifics to be announced.		
	Week 6		
2/13/2023	15		
2/15/2023	16		
2/17/2023	17 Chapter 8	Potential energy and conservation of energy	
	Week 7		
2/20/2023	18		
2/22/2023	19		
2/24/2023	20 Chapter 9	Linear momentum and collisions.	
	Week 8		
2/27/2023	21		
3/01/2023	22		
3/03/2023	23 Chapter 10	Rotational kinematics and energy.	
	Week 9 Spring Break		
3/06/2023	No class.		
3/08/2023	No class.		
3/10/2023	No class.		
	Week 10		
3/13/2023	24		
3/15/2023	25		
3/17/2023	26 Chapter 11	Rotational dynamics and static equilibrium.	
	Week 11		
3/20/2023	27		
3/22/2023	28		
3/24/2023	29 Chapter 12	Gravity.	
	Date of Test #2 and specifics to be announced.		
	Week 12		
3/27/2023	30		
3/29/2023	31 Chapter 13	Oscillations about equilibrium.	
3/31/2023	32		
	Week 13		
4/03/2023	33		
4/05/2023	34 Chapter 14	Waves and sound.	
4/07/2023	35		

	Week 14		
4/10/2023	36		
4/12/2023	37		
4/14/2023	38	Chapter 16	Temperature and heat.
	Week 15		
4/17/2023	39		
4/19/2023	40	Chapter 17	Phases and phase changes.
4/21/2023	41		
	Final-test is: Friday, April 28, 2023. This is subject to change and details to be announced.		
	Week 16		
04/24/2023	42		
04/26/2023	43	Chapter 18	Laws of Thermodynamics
04/28/2023	44		
	Week 17		
05/01/2023	45	the last day of class for MWF classes.	

There will be no three hour final exam.

(Sec I).....

UGA Student Honor Code:

"I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others.
" A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi.

(Sec J).....

Mental Health and Wellness Resources:

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).

If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.

Additional resources can be accessed through the UGA App.