PHYS 2311 "Physics I" - Spring 2021

CRN: 30774 Credits: 4.0
Department: Physics and Astronomy
Class Home page: https://jpastro.net/PHYS2311/syll-phys2311.html (this page!)
Class time and place: MWF, 11:00-11:50 pm, SciAnnex 105 (Section 3)

Instructor: **Dr. Jason Pinkney**
Office hours in 111 Science Annex at Tues 10 am, Wed 2-4 pm, Thurs 10 am -12 pm.
Email j-pinkney@onu.edu or call 419-772-2740.
Instructor's Home page: https:jpastro.net

Course Description:
This course is a calculus-based introduction to physics. Topics include motion in 1, 2, and 3 dimensions, forces, Newton's laws, energy, momentum, rotational motion, oscillations, and thermodynamics. A tentative calendar of topics is outlined below .

Lab:
The lab for this class is Physics 2341. You should be signed up for one of the many sections of PHYS 2341, although it can be taken in a future semester. The lab is graded independently of the lecture class. The labs are held on Tuesdays and Thursdays. Please attend this week because you will have a short, informational meeting with your instructor. You will receive an email from me before hand if you are in one of my sections. Please bring $13 (exact change) to your first lab meeting for the lab manual and notebook. All lab sections are held in Meyer 121.

Textbook:
Physics for Scientists and Engineers, 10th Edition. By Serway and Jewett. (ISBN-13: 9781337553575)

NEW STUFF (Watch this spot for outlines and extras.)

Advice on homeworks
Week 1 Powerpoint - Units and Measurements (PDF)
Difficult to describe motion, courtesy Honda Co. (mpg video)
Week 1 Practice quiz - Ch. 1

Grading:

In-class	Homework, attendance	25%
Quizzes	Quizzes (drop lowest score)	25%
Exams	There will be two exams and a final.	50%
Total		100%

Your final letter grade is calculated roughly as follows:

< 55	55-70	70-80	80-90	90-100
F	D	C	B	A

I will not grade any "harder" than the above. However, if the class mean drops below 75, I will grade more leniently.

Schedule (tentative):

Week of	Topic	Chapter(s)	Tests
1/20,22	Syllabus, Measurements (1), Linear Motion (1).	1,2	
1/25,27,29	Linear Motion (2), Vectors (1)	2, 3	quiz 1
2/1,3,5	Motion in 2D (3)	4	quiz 2
2/8,10,12	Laws of Motion (3)	5	quiz 3
2/15,17,19	Circular Motion (2), Work and Energy (1)	6,7	
2/22,24,26	Work and Energy (2)	7	Exam I
3/1,3,5	Conservation of Energy (3)	8	quiz 4
3/8*,12	Linear Momentum and Collisions (2)	9	quiz 5
3/15,17,19	Rotation of Rigid Objects (2), Angular Momentum (1)	10,11	quiz 6
3/22,24,26	Angular Momentum (2), Static Eq (1)	11,12	
3/29,31	Oscillatory Motion (2)	15	Exam II
4/2	**Good Friday**	**-**	**-**
4/5,7,9	Temperature (2)	19	quiz 7
4/12,16,18	First Law of Thermo (3)	20	quiz 8
4/19,21,23	Kinetic Theory (3)	21	quiz 9
4/26,28,30	Entropy (3)	22	
5/7, Thur 4:15-6:15pm	Comprehensive Final Exam. (Place TBD)	_	Final exam.
*** 3/10 (W) is Honor's Day**			

Course Policies:

COVID-19 accomodation. Faculty were asked to include this response by the Student Advisory Board to the request from students to relieve academic pressure during this time of pandemic. I choose to **drop your lowest homework grade**. Rather than pick one week that everyone will not have to turn in homework, I will allow you to pick an especially trying week. This will appear as a 0 score, but will be dropped from the final grade.

Moodle will only be used sparingly for this class unless we have to go online. Read how I will use Moodle in the Introduction Section here.

Attendance. can affect your grade both directly and indirectly. Attendance is crucial on test days. Sometimes I will call on people from my class list to answer questions, or have everybody solve practice problems on a sheet of paper. If you miss such an in-class activity, there is no make-up. An attendance score may be factored in to determine the "Homework, attendance" grade. Absences can also indirectly lower your grade because the material presented in class reflects the material on quizzes and exams. Let me know in advance (e-mail is good) if you plan to miss for a valid reason (e.g. your team is on the road, you are sick, you have a family emergency). If you miss a quiz or exam because of an unforeseen emergency, let me know as soon as possible, and provide proof of the emergency. The name and phone number of a relevant authority figure (perhaps a parent) can be provided as proof. Do not book flights or make other plans that conflict with the final examination time.

Homework. will consist of working problems from the textbook and from the instructor. Problem solving is a major part of physics; you must practice it to really know it. I hope to provide some practice questions from a test bank each week. These do not have to be turned in, but can be considered a homework "supplement". Homework turned in after the due date (usually Friday afternoon) will be given 50% credit. Your lowest homework score will be excluded from the grade.

In-class problems. These problems will count towards the homework portion of your grade, although they will be done in-class (hence the name). Grading will be lenient (basically an attendance check). Do not attempt to "make up" these problems if you miss one, but you can ask me or a student for their notes.

Turning in Assignments. I have shared a Google Drive folder with you to use for turning in assignments. You should create a subfolder with a name like: Lastname_Firstname. Most homework assignments should be typed up in Word (.docx) but

then exported to PDF. Some might involve drawings which should be scanned and then turned into a PDF file (see www.jpg2pdf). The assignment will be annotated to indicate how your grade was determined.

Quizzes will be given on most non-exam weeks. They will consist of 5 - 10 questions, mostly multiple choice. Some may be given using **Moodle** , with the default time being Sunday at 2 pm. (Let me know if a given time is inconvenient and I can customize them.) They cover the assigned reading, homework and especially the material discussed in class. You can only make up a quiz that was missed because of a valid conflict or emergency. Also, you can only make up the quiz before the answers are revealed (usually the next period). Exception: quarantine due to COVID-19. For this reason, I will drop your lowest quiz score.

Exams. will be given roughly every 5 weeks. These will weigh most heavily towards your class grade. The final exam will be comprehensive, but will emphasize the last 5-6 weeks of material.

Disruptions. You can ask questions during class and even murmur "lame" when I tell a joke, but don't interfere with the learning of the students around you. Don't habitually walk in too late. Do not use cell-phones and don't text in class. If you really think you can take notes better on a laptop then in a notebook, then see me. If it distracts the class, I'll ask you to stop. In general, do not disrupt the class or you may be asked to leave.

Cheating. will not be tolerated. During tests, do not use outside references like laptops, textbook, or notes UNLESS I explicitly allow them. Do not look at another person's quiz or exam while you are taking one. Do not make it easy for another person to see your answers - if anything shield your answers. Do not share calculators during an exam unless you check with me. Do not store equations in your calculators. The penalty for cheating is as severe as a zero score for the quiz or exam.

Calculators. I encourage you to use a simple calculator in this class. Do not use a cell phone app. Do not store functions in the memory of your calculator if you wish to use it for tests. If you do not submit your calculator to me for an inspection when asked you will be denied the right to use one.

Tutoring. is available from Physics, Engineering, and Math. (Physics tutors usually work on Thursdays from 7-9 PM in SA116.) Listen for a confirmation in class. Of course, you are also welcome to drop by during my office hours.

Other Mandatory Syllabus Information:

Disability services	Academic Honesty (Append. F, p. 97)	Title IX

 Hyperphysics 	Cool Dynamics Demos	The ONU Physics Homepage