

Syllabus

Physical World, Phys101 – Fall2015

Instructor: Professor Mick O'Shea
Office: Cardwell Hall 106; email: mjoshea@phys.ksu.edu
Office Hours: Tues, Thurs. 9:00 – 10:45 a.m. or by appointment
Lectures: Tues/Thurs 11:30 a.m.-12:45 p.m.
Text: Conceptual Physics by P. G. Hewitt (Addison-Wesley, 12th Edition) + Mastering Physics
(Buy ISBN-13: 9780321935786; this will get you Mastering Physics + eText + Looseleaf text)
Homework: Mastering Physics (you must purchase ISBN-13: 9780321935786 **by the first day of class**). Please read "*MasteringPhysicsLogOn-F2015-Tues-Thurs.PDF*" (posted in 'modules') and register at the HW website as soon as possible. Do this at the latest by the first week of class.

Physical World is designed to present an overview of physics for students who have little or no previous physics. Scientific concepts and their development will be discussed using the scientific method. Mechanics, electricity and magnetism, optics and modern physics will be covered.

Course Website: K-State Online (log on and you will have access to the website if you are enrolled). Check this website for important messages. Chapter outlines, practice exams and exam solutions will be posted. (all documents below are on K-State Online). Many examples will be done in class – you must come to class to get the solutions to these examples. See below for 'Mastering Physics' homework solutions.

Preparing for lecture: I strongly recommend that you read the chapters in the text to be covered in advance of the lecture. You will not understand all the detail in the chapter prior to lecture, but you will be better prepared to gain insight into, and understanding of, the material in lecture.

Chapter outlines: Chapter outlines will be posted at the course website, print these and bring them to lecture. Note that the Chapter outlines are just that: chapter outlines. **THEY ARE NOT A SUBSTITUTE FOR ATTENDING LECTURE.**

Homework (HW): HW assignments will be done on-line using 'Mastering Physics'. Exam questions will be based on the **lecture material** and this **homework**. The homework is worth 150 points. The 'Mastering Physics' homework system will give you the correct answer once you have completed the homework. Note that you can look at the 'Mastering Physics' questions prior to completing them and ask questions about them in class on **TUESDAY** if you wish – Mastering Physics assignments will be due each Tuesday by 10 p.m.). You must also read the document "*MasteringPhysicsLogOn-F2015-Tues-Thurs.PDF*"

If you miss class: If you miss one or two classes, get the lecture notes from another student. If you do not understand anything, come see me. Note that the more classes you miss the more difficult it will be to catch up and this will affect your grade.

Seeking help: Tutors are available in the physics help room (go to <http://www.phys.ksu.edu/> then click on 'teaching' and 'help room' to find the schedule (may not be set up until the second week of semester). I strongly recommend you use these tutors or talk to me if you need help.

Laboratory: The laboratory (Phys 103) is optional, is enrolled separately and receives a separate grade. Please contact Brandon Lohman (CW 403) for any questions about labs if you are enrolled in Phys103.

Exams: There will be three in-class exams worth 100 points each (see "class schedule" below). The exams consist of multiple choice and "short answer" questions, generally testing understanding of the material with some calculations required. There will be no make-up exams. There will be a SEAT CHART for each exam. No **cell phones** or **music devices** or other **electronic devices** with the exception of a calculator may be used. No dictionaries may be used. **YOU MUST BRING A SIMPLE WORKING CALCULATOR TO EXAMS.** You must also read *Class Policies and Advice.docx*.

Final: The course final will be comprehensive. The final is worth 150 points, and it cannot be dropped or substituted. It will take place in Cardwell 103 (the classroom we use all semester long) –see class schedule below. **DO NOT SCHEDULE ANYTHING ELSE AT THE TIME OF THIS FINAL EXAM.**

Statement Regarding Academic Honesty. Kansas State University has an Honor and Integrity System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor and Integrity System. The policies and procedures of the Honor and Integrity System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The Honor and Integrity System website can be reached via the following URL: www.k-state.edu/honor. A component vital to the Honor and Integrity System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

Statement Regarding Students with Disabilities. Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the [Student Access Center](mailto:accesscenter@k-state.edu) at accesscenter@k-state.edu, 785-532-6441; for Salina campus, contact the [Academic and Career Advising Center](mailto:acac@k-state.edu) at acac@k-state.edu, 785-826-2649.

Statement Defining Expectations for Classroom Conduct. All student activities in the University, including this course, are governed by the [Student Judicial Conduct Code](#) as outlined in the Student Governing Association [By Laws](#), Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

Class Etiquette: If you arrive late or leave early, sit at the back of class. Do not read newspapers in class. Put cell phones on mute/vibrate. **DO NOT USE A LAPTOP OR OTHER ELECTRONIC DEVICE DURING CLASS.**

Statement for Copyright Notification: Copyright 2015 (Michael O'Shea) as to this syllabus and all lectures. During this course students are prohibited from selling notes to or being paid for taking notes by any person or commercial firm without the express written permission of the professor teaching this course.

Grades: Final grades will be determined from the total points (300 for exams, 150 for final and 150 for homework) as follows:

A 600-540 (≥ 90%) B 539-480 (≥ 80%) C 479-420 (≥ 70%) D 419- 360 (≥ 60%) F Less than 360

Class Schedule

Date	Chap.	Topic	Date	Chap.	Topic
Aug. 25 th	1	Science	27 th	19	Vibrations and waves
27 th	2	Newton's 1 st law -Inertia	29 th	19-20	Sound
Sept. 1 st	2-3		Nov. 3 rd	20-21	Musical sounds
3 rd	3	Linear motion	5 th	22	Electrostatics
8 th	4	Newton's 2 nd law	10 th	22-23	Electric current
10 th	4		12 th	23	
15 th	5	Newton's 3 rd law,	17 th	24	Magnetism
17 th	5-6		19 th	24, 26	Light
22 nd	6	Momentum, exam discussion		Thanksgiving	
24 th	Exam 1	Chap. 1 - 6	Dec. 1st	28	Reflection, refraction
29 th	7	Energy	3rd	Exam 3	Chap. 19-24, 26, 28
Oct. 1 st	7-8	Rotational motion	8th	32, 33	Atoms
6 th	9-10	Gravity	10 th	33 and Review	Radioactivity
8 th	10	Projectiles, satellites	Tues.		Final Exam (Comprehensive)
13	11, 15	Atomic nature/matter	Dec. 15th		9:40 a.m. -11:30 p.m. ALL CHAPTERS COVERED DURING SEMESTER
15	15	Temperature/Thermal Exp.			
20 th	16	Heat transfer, exam discussion			
22 nd	Exam 2	Chap. 7-11, 15, 16			