COURSE SYLLABUS – PHYSICS 170

INSTRUCTOR: Kerry Tanimoto, Ph.D.

OFFICE: Zoom (see laulima for Meeting ID and Passcode)

PHONE: NA

E-MAIL: kerryt@hawaii.edu

OFFICE HOURS: 12:00 – 1:00 Daily

LAULIMA:
  All students enrolled in this course will have access to the additional information
  posted on laulima at http://laulima.hawaii.edu. You will need your UH username
  and password to log in.

COURSE TITLE: General Physics I

COURSE DESCRIPTION:
  PHYS 170 is the first course in a calculus-based sequence of introductory physics
  courses generally required of engineering and physical science majors. The topics
  covered include classical mechanics, fluids, oscillations, and waves.

PREREQUISITES:
  MATH 242 (or concurrent) or MATH 252A (or concurrent). MATH 216 may be
  substituted with consent.

CO-REQUISITE: None

TEXT: Young and Freedman, "University Physics", 15th edition

INTERACTIVE DIGITAL ACCESSPROGRAM:
  This course will be participating in the Bookstore's Interactive Digital Access
  Program (IDAP). Through this program, you will access your eBook and
  Mastering Physics digitally, and it will be available to you by the first day of
  class.

  A charge for the digital course material through IDAP will be added to your
  MyUH account.

  You have the option to opt-out of receiving your course material through IDAP.
  By opting-out, you will lose access to the course material and the charge will be

refunded on your MyUH account. If you do not opt-out, the charge will stay on your MyUH account. Any unpaid charges on your MyUH account will turn into a hold. Holds on your account will prevent you from accessing various services within the University.

You may opt-out by visiting your unique Inclusive Access Student Portal, which can be found in your IDAP welcome email (Subject Line: "IMPORTANT: You have enrolled in an IDAP Course").

For more information regarding IDAP, please contact your campus bookstore.

STUDENT LEARNING OUTCOMES:
Upon the successful completion of PHYS 170, the student should be able to:

- Identify the relevant physics that applies to given physical situations
- Demonstrate the ability to select an approach that is appropriate for applying the physics to any problem
- Demonstrate the ability to quantitatively and systematically incorporate the relevant physics
- Demonstrate a sufficient understanding of the required math that allows solutions to be obtained
- Demonstrate an understanding of the applicable physics by assessing the accuracy and correctness of all results

LECTURES:
Lectures will be held via Zoom during the scheduled class time. The material will be presented in the same order as in the textbook. New topics will be introduced each day and additional problems will be solved. These problems will be selected from the Problems section at the end of each chapter.

The Zoom lectures will not be recorded.

GRADING:
The boundaries separating letter grades in the final distribution are chosen based on the standards I have established for the course and are not predetermined numerical values. The work submitted for evaluation will count towards the final grade based the following:

Homework	20%
Exam I	20%
Exam II	20%
Exam III	20%
Exam IV	20%

ATTENDANCE:
There tends to be a correlation between attendance and overall performance. As such, attendance to lecture will be recorded. If you complete the entire semester with no unexcused absences, 4.00% of extra credit will be added at the end of the semester to your overall total. To be counted as present, you must join the class within the first fifteen minutes. As the number of unexcused absences increases, the number of percentage points added decreases until zero is reached. See the table below for the percent added and the corresponding number of unexcused absences.

Days Absent	Percent Added
0	4
1	3
2	2
3	1
4	0

HOMEWORK POLICY:
Homework problems will be assigned in MasteringPhysics for each chapter covered. The number of problems will vary depending on content. Due dates will be posted on laulima and MasteringPhysics, and will be strictly adhered to. *No* late assignments will be accepted.

EXAMS:
All exams will be administered on the scheduled days during the class period. The exam will consist of problems that must be solved on paper, or electronically on a tablet. The exam problems will be accessible using the Assignments tool on laulima *once class begins on the scheduled day of the exam*.

Exam protocol:
• Mic and video will be turned on for the duration of the exam. Turn your volume all the way down to minimize distraction generated by sounds from other students in the class.
• Camera will be positioned such that your face is visible from the front.
• No virtual or blurred background.
• No headphones of any kind and no hats with visors.
• Any communication will be done via chat, so be sure your chat window is open.
• Written solutions will be submitted as Attachments through the Assignments tool in laulima. All attachments *must* be a pdf and combined into *one*

document if more than one page is submitted. Written submissions must be of sufficient resolution and contrast to be easily read. If you do not have access to a scanner, there are many free apps that allow your mobile device to serve as a scanner. If this is a task you are unfamiliar with, please learn how to execute the process before the first exam. If you require assistance, please let me know.

PHYS 170 – COURSE SCHEDULE

Week	Day	Date	Activity
1	M	05/23	Introduction/Ch. 1 – *Units, Physical Quantities and Vectors*
	T	05/24	Ch. 1
	W	05/25	Ch. 2 – *Motion Along a Straight Line*
	R	05/26	Ch. 2/Ch. 3 – *Motion in Two and Three Dimensions*
	F	05/27	Ch. 3
2	M	05/30	**HOLIDAY**
	T	05/31	Ch. 4 – *Newton's Laws of Motion* LAST DAY TO DROP
	W	06/01	Ch. 4/Ch. 5 – *Applying Newton's Laws*
	R	06/02	**EXAM I (Chs. 1 to 3)**
	F	06/03	Ch. 5
3	M	06/06	Ch. 6 – *Work and Kinetic Energy*
	T	06/07	Ch. 6/Ch. 7 – *Potential Energy and Energy Conservation*
	W	06/08	Ch. 7
	R	06/09	Ch. 8 – *Momentum, Impulse and Collisions*
	F	06/10	**HOLIDAY**
4	M	06/13	Ch. 8/Ch. 9 – *Rotation of Rigid Bodies*
	T	06/14	**EXAM II (Chs. 4 to 7)**
	W	06/15	Ch. 9/Ch. 10 – *Dynamics of Rotational Motion* LAST DAY TO WITHDRAW
	R	06/16	Ch. 10
	F	06/17	Ch. 10/Ch. 11 – *Equilibrium and Elasticity*
5	M	06/20	Ch. 11/Ch. 12 – *Fluid Mechanics*
	T	06/21	Ch. 12
	W	06/22	Ch. 13 – *Gravitation*
	R	06/23	**EXAM III (Chs. 8 to 11)**
	F	06/24	Ch. 13/Ch. 14 – *Periodic Motion*
6	M	06/27	Ch. 14
	T	06/28	Ch. 14/Ch. 15 – *Mechanical Waves*
	W	06/29	Ch. 15
	R	06/30	
	F	07/01	**EXAM IV (Chs. 12 to 15)**