SYLLABUS Fall 2019 Physics 151 – College Physics

COURSE TIME: MWF 9:30 – 10:20 am **INSTRUCTOR:** Dr. Sara Petty

CREDIT: 3 semester hours **OFFICE:** Watanabe 410

LOCATION: PSB 217 EMAIL: pettys@hawaii.edu

OFFICE HOURS: MWF 3 – 4:00 pm, or by appointment.

TEXTBOOK: Mastering Physics for the 11th edition of Young's <u>College Physics</u>. See below

for accessing the Mastering Physics Interactive Digital Access Program (IDAP).

COURSE DESCRIPTION: This course is the first half of a two-semester introduction to the fundamentals of physics, and will cover mechanics (kinematics, dynamics, gravitation, energy, momentum, rotation), waves, and thermodynamics. Lectures and problems will regularly use the mathematical tools of algebra, geometry, trigonometry, and vectors, but not calculus.

PREREQUISITE: A grade of "C" or better in MATH 140 (trigonometry & pre-calculus) or MATH 215 or higher; or instead, a passing score on the Mathematics Department's Math Placement Exam (≥14 on Part I & ≥10 on Part II).

LAB: If you also need to take PHYS 151L lab, it is strongly recommended that you do so concurrently with the lecture; the lab provides a hands-on way of reinforcing and complementing many of the topics presented in lecture.

CLASS-ID: Include your class ID on all assignments. You will also be asked to enter your class ID for the Mastering Physics system.

ONLINE COURSE MATERIAL ACCESS

Laulima has been set-up for this course (https://laulima.hawaii.edu). You will receive announcements, documents, and additional resources.

Many materials and assignments will be available through Mastering Physics IDAP:

The digital access for the course is being delivered through our bookstore's **Interactive Digital Access Program (IDAP)**. The cost of your digital materials will automatically be charged to your student account at a deeply discounted price. You are responsible for paying for charges applied to your student account.

To access your course materials:

- 1. Go to www.pearsonmylabandmastering.com
- 2. Register with our specific course ID: petty62525
- 3. Use our course specific access code: DSCKKY-EMAIL-VETCH-BLOBS-NADIR-ROUSE

If you have issues accessing the course materials, visit Pearson's tech support page at https://support.pearson.com/getsupport/s/. Either search for an immediate answer or choose "Contact Us" in the top right corner to chat with a tech support team member.

If you decide to opt-out of IDAP and lose access to the required digital course materials, please do one of the following:

- 1. Click the "Opt-Out" button in the left-hand navigation bar of your Laulima course to submit your request, or
- 2. Choose "Opt-Out" in this link https://www.uhbooks.hawaii.edu/idap

If you opt-out before the deadline, the IDAP Rental Charge will be refunded to your MyUH account. By opting-out you will lose access to the required course materials. If you have any questions about IDAP or this charge to your student account, contact the bookstore.

OTHER MATERIALS

SCIENTIFIC CALCULATOR: Needs to have scientific notation, trigonometric functions, exponents, & logarithms. Graphing or programmable calculators are allowed, but NOT necessary.

- Bring calculator to lab & exams (necessary!) and lectures (needed for occasional in-class questions).
- Smart phones, tablets, computers, or similar devices are NOT permitted during exams!

ELECTRONIC COPIES: handouts, paper homework assignments, solutions, sample exams, and other course materials will be available through Mastering Physics or the Laulima sites for this course.

Announcements will be made each class. This includes due dates, updates to the course schedule, where to find resources, and additional practice materials. If you do not attend class, it is your responsibility to get this information from a classmate.

GRADING

Homework 20% In-class Quizzes 15% Midterms 25% Final Exam 40%

Homework (20% of course grade) – weekly homework will be set on Mastering Physics, starting in week 2. No late homework is accepted. No credit is given for late assignments. The two lowest homework grades will be dropped.

 There will be additional assigned problems that you will need to solve on paper to show your work.

"In-class" Quizzes (15% of course grade) – Starting in week 2, 2-3 multiple-choice questions will be given in each class. These questions will *sometimes* cover material in the textbook, set as part of the reading from previous classes, but may cover any topic, including general knowledge of physics, physical reasoning, and "interesting problems."

The "in-class" questions will be organized as follows:

- Approximately 30 minutes before each class, a quiz will open on Laulima, containing the question(s)
- At points during class, the question(s) will appear on a slide, in the style of a clicker question. 2-3 minutes will be given in-class to discuss each question
- After those 2-3 minutes, answers will be given by show of hands, or paper voting
- After this, the correct answer will be given, along with the reasoning behind the correct answer
- Shortly after class, the quiz on Laulima will close
- Students may answer the question(s) at any point while the quiz is open

It is not strictly necessary to come to class to do the "in-class" questions, but there is a large strategic advantage in coming to class. Moreover, in some cases the questions will be a little challenging, such that the in-class discussions are very valuable. The reasoning behind the correct answer is much more important than getting the answer correct.

Communicating the answers to someone outside class, while in-class, is considered cheating. Communicating the answers to anyone who did not attend the relevant class is considered cheating.

Midterms (25% of grade) –There will be four midterms scheduled, covering 3-4 chapters of material. These will be comprehensive and you should plan on using the entire 50 minutes of class time. The lowest midterm will be dropped from your final grade.

Final Exam (40% of grade) –The final exam will cover all topics and materials given through this course.

CLASS POLICIES

Students and faculty each are responsible for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to define a reasonable space within which they, and the students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender identity, and nationality.

For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. For example:

- Act as mature and responsible adults at all times.
- The use of cell phones is not allowed during class. Ringer volume must be set to silent before class starts.
- In this large class, talking to your neighbor, even very quietly and briefly, is very disruptive.
 Offenders will be asked to leave class. Students are actively encouraged to ask talkative neighbors to be quiet.
- Laptops can only be used for class related issues (no Facebook, web-surfing, Netflix, etc.) and must have their volume set to completely silent. Students should be aware that their laptop screens are clearly visible to those sitting behind them, so they should refrain from displaying personal, distracting or otherwise embarrassing material.
- Show up to class on time, and be prepared to learn when class starts.

The University does not have a mandatory attendance policy nor is roll taken each class period. There will be quizzes and in-class assignments that will serve as proof of attendance. Each student is responsible for all materials presented, including lecture notes and in-class demonstrations. If a class is missed for a valid reason (family emergency, medical, university-related travel), it is the student's responsibility to contact the instructor to obtain any assignments or additional information.