

## Physics 10 Winter 2017

**Instructor:** Carrie Huang

**Class Time:** Monday and Wednesday 5:30 pm – 7:45 pm

**Classroom:** S11

**Office:** S 13

**Email:** huangcarrie@fhda.edu

**Office Hours:** Wednesday 3:10 pm – 5:25 pm

**Final Exam:** Monday 12/11/17, 6:15 pm – 8:15 pm -watch out! Finals will not be given earlier or later.

**Textbook:** Conceptual Physics by Hewitt. 11<sup>th</sup> edition or whatever.

### COURSE DESCRIPTION:

This course will explore the structure of physics from a purely conceptual standpoint. Few mathematical techniques will be used to express the rationale of our universe, instead, verbal logic will be employed. Few numerical calculations will be performed. Although it may sound easier to study physics without mathematics, actually this is a challenging goal and requires a skillful and precise use of language. We will start with mechanics and study motion, Newton's laws, energy, and momentum. Then on to the structure of the atom and the nature of matter. Electricity is next including simple circuits. And oscillations, wave motion, and sound are last. Special topics (light, relativity, quantum mechanics, etc..) will briefly be treated after that as time allows.

PREREQUISITES: Math114.

### ATTENDANCE:

In order to comply with federal guidelines De Anza College requires students to attend class and class attendance records to be kept. A student may miss a few classes for medical or personal reasons, however, unexplained absence of more than 2 consecutive days or frequent absence will result in a student being dropped from the course, and unexcused missed quizzes cannot be made up. **NO make-up exams will be given, PERIOD.**

### HOMEWORK ASSIGNMENTS:

Homework will be assigned after each class. It is very important to do homework! If you have difficulty with the homework you can come to my office hours, work together with other students, or go to the **Math and Science Tutorial Center (Student Success Center)**.

The set problems should not be viewed as the only problems you can do: you are strongly encouraged to look through all of the problems at the end of each chapter and consider how each should be approached. Practicing with many problems is the key to master the concept and ace in exams.

STUDENT SUCCESS CENTER: <http://www.deanza.edu/studentsuccess/>

Deanza college has excellent tutoring services and I highly recommend that every student get regular tutoring if she / he needs it, .. or even if you don't need it. I will also try to set up group tutoring session by asking about the times that they are available. The tutorial center in S43 can often find a tutor for a group session. During summer session tutors may not be available.

### QUIZZES:

There are nine (8) quizzes. The quiz questions will be homework problems. Make sure you do the homework, so you can do well on the quizzes! No make ups for quizzes will be given. If you miss a quiz consider this to be your throw out.

### EXAMS:

There will be two mid-term exams and one comprehensive final exam. All exams are closed book! To pass the class, you must take all the exams. **There are NO make-up exams.** If you miss an exam, you will get zero (0) point for that exam. Mid Term Dates: See tentative class schedule below. All exams in this class will be multiple choices questions only. **Bring your Scantron!**

### ACADEMIC HONESTY POLICY :

Cheating consists of receiving or giving unauthorized aid during exams or duplicating and handing in assignments for absent students. It is acceptable to collaborate on Homework, Activities in Class, including Labs, but not on Exams. You must hand in your own written work. First offense will lead to zeros on the assignment or exam involved. Repeat offenses will lead to administrative involvement. Note that a zero on an exam will likely result in a failing grade.

### DISRUPTIVE BEHAVIOR:

The college will enforce all policies and procedures set forth in the Standards of Student Conduct (see catalog). Any student disrupting the class may be asked to leave that class. Administrative follow-up may result.

### GRADING:

Maximum 1000 points can be earned in this class.

90%-100%, 900 – 1000 points → A (97%-100% A+, 90%-92% A-)

80%-89%, 800 – 899 points → B (87%-90% B+, 80%-82% B-)

65%-79%, 650 – 799 points → C (77%-80% C+, 65% - 68% C-)

50%-69%, 500 – 649 points → D

50% or lower, 499 points or less → F

Mid Term Exam: 30%, (300 points)

8 Homework Quizzes: 40% (4% each. 50 points each. Total 400 points)

Final Exam: 30% (Final exam will be comprehensive. 300 points)

### EXTRA CREDIT

You can receive up to 5% extra credit (50 points) during class. Extra credit will be only given in class. You must participate to earn. No make-up extra credit, PERIOD.

### IMPORTANT DATES

10/7/17	Last day to add
10/8/17	Last day to drop with full refund and no record of grade
10/20/17	Last day to request pass/no pass grade
11/17/17	Last day to drop with "W"
12/11/17	Final Exam

Tentative Class Schedule:

The Instructor reserves the right to change the schedule.

Date	Lecture
9/25/17	Introduction and Chapter 1 What is Science and Physics
9/27/17	Chapter 2 Inertia and Newton's first law and Chapter 3 Linear Motion
10/2/17	Quiz #1 (15 min), Chapter 3 Continue + Chapter 4 Newton's second law
10/4/17	Chapter 5 Newton's third law
10/9/17	Quiz #2 (15 min) Chapter 6 Momentum + Chapter 7 Energy
10/11/17	Chapter 7 Continue + Chapter 8 Rotational Motion
10/16/17	Quiz #3 Chapter 9 Gravity
10/18/17	Chapter 10 Projectile Motion and Satellite
10/23/17	Mid Term #1 Chapter 1 – 10 (1 hour) + Review Mid Term #1
10/25/17	Chapter 11 Atomic Structure + Chapter 12 Solids
10/30/17	Quiz #4 (15 min) Chapter 13 Liquids + Chapter 14 Gases
11/1/17	Chapter 14 Continue + Chapter 15 Temperature and Heat
11/6/17	Quiz #5 (15 min), Chapter 16 Heat Transfer + Chapter 17 Phases
11/8/17	Chapter 18 Thermodynamics +Review for Mid Term #2
11/13/17	Mid Term #2 + Review Mid Term #2
11/15/17	Chapter 19 Vibration and Waves
11/20/17	Quiz #6 (15 min) Chapter 20 Sound + Chapter 21 Music Sound
11/22/17	Chapter 22 Electrostatic + Chapter 23 Electric Current
11/27/17	Quiz #7 (15 min) Chapter 23 Continue + Chapter 24 Magnetism
11/29/17	Chapter 25 Electromagnetic Induction + Chapter 26 Light
12/4/17	Quiz #8 (15 min) Chapter 28 Reflection and Refraction
12/6/17	Review + Q/A
12/11/17	Final Exam