2015

Physics 121 General Physics I Summer 2015 Online

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WEB PAGE:

http://tycho.parkland.edu/cc/parkland/phy121o/summer/

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Course Description:

This is the first semester of a college-level, algebra-based physics sequence. The main topics covered include mechanics (kinematics, dynamics, circular motion, work, energy, momentum, rotational motion, and simple harmonic motion), waves (physical waves and sound waves), fluids (buoyancy, pressure, and fluid dynamics), and thermodynamics (temperature, heat, the kinetic theory, and the 1st & 2nd Laws of Thermodynamics). This class is designed to be identical (in content, difficulty, and total time spent on the course) to any other Physics 121 offered - the only difference is there will be no in-class time and more individual learning time! The only requirement for this course is to have access to a computer with internet and email access. You will also be required to take two exams ON CAMPUS.

YOU MUST USE YOUR PARKLAND EMAIL ACCOUNT FOR THIS COURSE.
You can set up this account by going to: http://stu.parkland.edu/
An email will be sent there getting you started in the class.

Note on Buying the Textbook for this Course:

For this course, you should buy the text Physics Fundamentals (by Vincent Coletta) The current edition is the 2nd edition. You can buy either the textbook or the ebook. This book will cover both Physics 121 and 122.

Course Components:

- THE TEXT: it is required in this course that you read the assigned chapters/sections in the text each assignment; since there will be little to no face-to-face interaction with the instructor, it is necessary to slowly and carefully read the text and look through examples; this aspect of the course is not graded but essential to learning physics (and exam questions on topics covered only in the text are fair game!).
- LECTURES: after reading the text and any accompanying material, you will need to look over and answer some "lecture" questions. This aspect of the course is worth 5% of the grade and essential to learning physics (remember, exam questions on topics covered only in the text are fair game!); the only thing you need to complete to get full credit are the slides in the lectures (and you will receive full credit no matter how many submissions you make).
- DISCUSSION: You should check the discussion board several times each week, just as if you were attending class. I will post any important announcements on the discussion board and you will have the opportunity to ask for and give help on specific problems. Keep in mind however, that many of the problems assign random numbers to each student, so a simple numerical answer is not helpful. Try to post the equation you used or the method you used to solve a particular problem. To encourage students to post both questions and answers to the discussion board. I will offer one bonus point for each post that I deem correct and helpful in answering a posted question. Each student may only earn 2 points each assignment, feel free to post as many times as you want. I will not take any points off for incorrect solutions.
- TUTORIALS: I have developed several tutorials that show how to work out some of the problems we will be covering this semester.
- LABS: you must complete and submit these on-line lab exercises each assignment; these simulations will help you explore the concepts learned about in the text and lectures; these lab exercises will be graded for completeness and correctness; at the end of the semester, each lab will be weighted equally and together, the labs will count for 10% of your grade.
- HOMEWORK: you must work out and submit these on-line problems each assignment; some of these problems will be "interactive examples" with extensive help sequences (although only the initial question is for credit) and others will be more traditional problems; these homework questions will be graded for completeness and correctness; you may submit answers as much as you like without penalty; at the end of the semester, each assignment's problems will be weighted equally and will be worth 10% of your grade.
- QUIZZES: you may ask for help about quizzes on the discussion board. Every assignment you must submit your answers to these online quizzes to evaluate

your progress for the assignment; these quizzes will be graded for completeness and correctness; you can work on the quizzes throughout the week and change your answers as many times as you like but only your final submission will be graded; you will not know if you are right or wrong until after the grading deadline; at the end of the semester, each assignment's quizzes will be weighted equally and the lowest two quizzes over the semester will be dropped; the quizzes will count for 15% of your grade.

- EXAMS: two times during the semester you will need to come in to take a multiple choice exam; the exam will have conceptual and calculational problems to evaluate your progress in learning physics; You will need to sign up for a time to take each exam. Space will be very limited so be prepared and sign up early, you may sign up by going to assignments 8 and 15; the exams will be 90 min long and have approx. 30 questions; the exams will not be cumulative (the first exam will cover assignments 1-7 and the second exam assignments 9-14); Go to assignments 8 and 15 for more information about exams; you must get AT LEAST AN AVERAGE OF 50% ON THE TWO EXAMS TO EARN A GRADE OF "C" OR BETTER IN THE COURSE. (exams will not be curved!); each exam will count for 25% of your grade; see assignments 8 & 15 for more info on the exams including sample practice tests with the same formula sheet you will get to use on the exam.
- FINAL EXAM: The final exam, is just like the weekly quizzes, but longer and it covers material from the entire semester. You may not post questions about the final exam on the discussion board.
- GENERAL: no late work is accepted; after the scoring deadlines you cannot make-up any work; after the exam dates you cannot make-up any exams!

Assignment Deadline:

In the summer the semester is only 8 weeks, therefore there are at least two deadlines each week. Every deadline, your assignment is due at 10:00 PM. NO EXCEPTIONS! If you will be gone or miss some days, you must make up the work ahead of time! Assignments will always be available at least two weeks before they are due. PLAN AHEAD! Do not wait until that afternoon (or even the night before) to start the assignment - you will not get it done and NO LATE WORK IS ACCEPTED! As a general rule of thumb, two days before the material is due you should do the lectures and labs and a day before the deadline you should do the homework and the quizzes - then you have an extra day just in case!

Grades:

- 5% - Lectures
- 10% - Labs
- 10% - Homework
- 15% - Quizzes
- 25% - Exam #1
- 25% - Exam #2
- 10% - Final Exam

You should be getting full (or close to full) credit on lectures, labs, quizzes, and the final exam. For these exercises you have as much time as you need (until the deadline) to work on your own and seek out resources. Getting full (or close to full) credit on these activities will give you a buffer should you not perform as well on the (difficult) exams as you would like to! However, keep in mind that you must get AT LEAST AN AVERAGE OF 50% ON THE TWO EXAMS TO EARN A GRADE OF "C" OR BETTER IN THE COURSE. THIS IS A COURSE WIDE POLICY

Grades will be distributed as follows after all your points are added and weighted as described above:

- A - 100% to 90%
- B - 89% to 80%
- C - 79% to 70%
- D - 69% to 60%
- F - 59% or lower

Assignment 0 (due June 16 at 10:00pm)

Assignment 1 (Extended one day to June 17 at 10:00pm)

Assignment 2 (due June 18 at 10:00pm)

Assignment 3 (due June 23 at 10:00pm)

Assignment 4 (due June 25 at 10:00pm)

Assignment 5(due June 30 at 10:00pm)

Assignment 6 (due July 2 at 10:00pm)

Assignment 7 (due July 7 at 10:00pm)

Assignment 8 (Exam 1) (July 7, 8 or 9)

Assignment 9 (due July 14 at 10:00pm)

Assignment 10 (due July 16 at 10:00pm)

Assignment 11 (due July 21 at 10:00pm)

Assignment 12 (due July 23 at 10:00pm)

Assignment 13 (due July 28 at 10:00pm)

Assignment 14 (due July 30 at 10:00pm)

Assignment 15 (Exam 2) (July 30, August 3 or 4)

Assignment 16 (due August 6 at 10:00pm)