Physics 213 General Physics with Calculus Syllabus, Spring 2021

Instructor: Daniel Summerton

Lab Instructor: Maggie Greenwood

Instructor e-mail: summerd@linnbenton.edu

Lab Instructor e-mail: greenwm@linnbenton.edu

Gradescope entry code WYN7WN

Zoom link: https://linnbenton.zoom.us/j/2719266016

Lab zoom link: https://linnbenton.zoom.us/j/95113273967

Due to the current Covid 19 pandemic Physics 213 will be taught entirely online. The general format of the lecture portion of the class is outlined below.

Monday: 5pm lecture covering the week's material will be posted on Moodle. The HIP problem set will be posted as well.

Wednesday: I will be hosting a live zoom session to go over questions and manage breakout sessions for group work. The sessions will begin at 5 pm and go till 7 pm. This will be recorded and posted on moodle.

Thursday: Lab meetings will be held at 5pm at the LAB zoomlink above.

Saturday: Chapter HIP will be due by midnight.

Sunday: Moodle Homework will be due by midnight

See the schedule below for further details.

Physics 213 will introduce the topics of the electromagnetic force including static and dynamic systems. Then we will look at electrical circuits including circuits containing capacitors. We will then cover magnetism and its relationship to electrical charge and circuits. The term will conclude with a study of electromagnetic waves.

Math requirements for this class and for physics in general

Math is the language of a large part of what we do in physics. To be able to do well in Physics 213, we've created the following prerequisites for this class:

- Completion of Ph 211 and Ph 212 with a 'C' or better
- Completion of MTH 254 with a grade of a 'C' or better

Physics 213 heavily relies upon mathematics. If you feel yourself getting lost in the math, make sure that you ask for help as quickly as possible.

Required Materials for the Class:

Textbook - Knight 4 th Edition "Physics for Scientists and Engineers"

Lab packet from bookstore

Computer and webcam with internet access.

The lab assignment will be available each week at minirov.info/ph213.

Grading:

HIPs: 20%, assigned on Monday of each week. Due on Saturday of each week.

Requirements: Requirements: HIPs must be handwritten, scanned and uploaded to gradescope. All work must be shown to receive full credit. Two late HIPs will be accepted for full credit if less than a week late. Additional late HIPs will receive half credit. HIPs will be graded based on correctness, work shown and legibility. If a problem is unsolvable, an explanation is required.

Labs: 20%:

Moodle Homework: 15%, Homework will have 2 parts every week. Part A will be posted on Moodle by Tuesday. Part B will be posted by Thursday. All homework will be due by Sunday at midnight.

Exams: 45%: Three equally weighted exams will be given, each covering the material since the previous exam. The exams will be Wednesday at 5 pm.

Grading Scale:

90%-100% A

80%-89% B

70%-79% C

60%-69% D

< 60% F

Other possible grades at LBCC:

I -- Incomplete. An T grade is assigned if for some reason a

student cannot complete all components of the course by the end of the academic term. To receive an T grade, the instructor and student must agree upon a contract that will spell out when Uncompleted work will be turned in.

Students in need of accommodations: Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor during the first week of class. If you have not accessed services and think you may need them, please contact Disability Services, 541-917-4789.

Tutoring and Tass sessions:

link to tutoring page

Link to the LBCC tutoring website:

https://www.linnbenton.edu/student-services/library-tutoring-testing/learning-center/science-support.php

TASS with Jenny Saturdays 10am-1pm at https://linnbenton.zoom.us/i/95113273967

Science help desk schedule:

https://docs.google.com/spreadsheets/d/1Y04KQk7HghYha9jLNADrf9y-JHJdNLtrA5LmlrM8YvI/edit?usp=sharing

| 29-Mar | | 31-Mar | | 1-Apr |
|--------------------------|-----------------------|--------|--------|--------|
| | | | | |
| Chapter 22 lecture, HIP1 | | | | |
| assigned | Chapter 22 discussion | | Lab#1 | |
| 5-Apr | | 7-Apr | | 8-Apr |
| | | | | |
| Ch 23 lecture, HIP2 | | | | |
| assigned | Chapter 23 discussion | | Lab#2 | |
| 12-Apr | | 14-Apr | | 15-Apr |
| | | | | |
| Lecture Ch24, HIP3 | | | | |
| assigned | Chapter 24 discussion | | Lab#3 | |
| 19-Apr | | 21-Apr | | 22-Apr |
| Lecture CH25, HIP 4 | | | | |
| assigned | EXAM 1, | | Lab#4 | |
| 26-Apr | | 28-Apr | | 29-Apr |
| Lecture ch26, HIP 5 | | | | |
| assigned | Chapter 26 discussion | | Lab #5 | |
| 3-May | | 5-May | | 6-May |
| Lecture Ch 27, HIP 6 | | | | |
| assigned | Chapter 27 discussion | | Lab#6 | |
| 10-May | | 12-May | | 13-May |
| Lecture Ch 28, HIP 7 | | | | |
| assigned | EXAM 2 | | Lab 7 | |
| 17-May | | 19-May | | 20-May |
| | | | | |
| Lecture CH 29, HIP 8 | | | | |
| assigned | Chapter 29 discussion | | Lab#8 | 0-11 |
| 24-May | | 26-Jun | | 27-May |
| Lecture Ch 30, HIP 9 | | | | |
| assigned | Chapter 30 discussion | | Lab 9 | |

| 31-May | 2-Jun | 3-Jun |
|-------------------------|--------|-------|
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| Memorial Day, no school | Exam 3 | |