***Physics 213 General Physics with Calculus Syllabus, Spring 2020***

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Class Homework: [www.masteringphysics.com](http://www.masteringphysics.com)

Mastering Physics Course ID: PH213SPRING2020

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 outlines below.

**Monday**: A lecture covering the weeks 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.

Chapter HW part A on Mastering physics will be due in the evening. Assume it will be due at 10pm though last term the times seemed to fluctuate.

**Friday:** Chapter HIP will be due by midnight.

**Sunday:** HW part B on mastering physics will be due in the evening.

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” along with a valid access code.

(3 rd Edition and MasteringPhysics access also ok)

Computer and webcam with internet access.

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

**Grading:**

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

Requirements: HIPs must be handwritten and returned via e-mail as a single pdf attachment. All work must be shown to receive full credit. Two late HIPs will be accepted for full credit, additional late HIPs will receive half credit. HIP assignment number must be included in subject line of e-mail. HIPs will be graded based correctness, work shown and legibility. If a problem is unsolvable, an explanation is required

Labs: 20%: This term two-formal reports will be due. A formal report is a typed-up synopsis of your lab for that day. Lab books will not be collected each week—however, as always, you should keep a lab book. If you don’t have your lab book from last term (because I have it), any notebook will be ok.

Mastering Physics: 10%

Exams: 45%: Three equally weighted exams will be given, each covering the material since the previous exam. The exams will be sent out Wednesday at 5 pm and will be due back by Wednesday at 8 pm. The exams must be returned as a handwritten single pdf attachment.

Participation: 5%: Students are expected to view the Monday lectures and submit questions via moodle or zoom. The questions will be answered in the Wednesday session. Requirement for participation will be defined during throughout the term but could include the following.

Attending LBCC provided help sessions, explaining HIPs to class during live zoom session, submitting questions from lecture.

**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

<https://www.linnbenton.edu/current-students/study/learning-center/tutoring/>

Tass schedule help via zoom will be posted as soon as it is available at

<http://minirov.info/ph213/>

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| --- | --- | --- | --- |
| 6-Apr | 8-Apr | 9-Apr | 10-Apr |
| Chapter 22 lecture, HIP1 assigned | Chapter 22 discussion, HW#1a due | Lab#1 w formal report | HIP1 Due, HW #1b due |
| 13-Apr | 15-Apr | 16-Apr | 17-Apr |
| Ch 23 lecture, HIP2 assigned | Ch 23 discussion, HW 2a due | Lab#2 formal report rough draft due | HIP2 due, HW2b due |
| 20-Apr | 22-Apr | 23-Apr | 24-Apr |
| Lecture Ch24, HIP3 assigned | **EXAM 1**, HW 3a due | Lab#3 formal report final draft due | HIP3 due, HW3b due |
| 27-Apr | 29-Apr | 30-Apr | 1-May |
| Lecture CH25, HIP 4 assigned | Chapter 25 discussion,HW#4a due | Lab#4 | HIP4due, HW4b due |
| 4-May | 6-May | 7-May | 8-May |
| Lecture ch26, HIP 5 assigned | Ch 26 discussion, HW 5a due | Lab #5 | HIP 5 due, HW5b due |
| 11-May | 13-May | 14-May | 15-May |
| Lecture Ch 27, HIP 6 assigned | **EXAM 2,** HW 6a due | Lab#6 | HIP6 due, HW 6b due |
| 18-May | 20-May | 21-May | 22-May |
| Lecture Ch 28, HIP 7 assigned | Ch 28 discussion, HW 7a due | Lab 7 | HIP7 due, HW 7b due |
| 25-May | 27-May | 28-May | 29-May |
| Lecture CH 29, HIP 8 assigned | Ch 29 discussion, HW 8a due | Lab#8 with formal report | HIP 8 due, HW8b due |
| 1-Jun | 3-Jun | 4-Jun | 5-Jun |
| Lecture Ch 30, HIP 9 assigned | Ch 30 discussion, HW 9a due | Lab 9 | HIP 9 due, HW 9b due |
| 8-Jun | 10-Jun | 11-Jun | 12-Jun |
| Term review, HIP 10 assigned | **Exam 3** |  | HIP 10 Due |