ALLAN HANCOCK COLLEGE

ACADEMIC AFFAIRS

Phys 163 – Engineering Physics 3

THIS SYLLABUS MAY CHANGE. STUDENTS WILL BE NOTIFIED OF CHANGES AS QUICKLY AS IS REASONABLE.

Semester and Year: Fall 2023

CRN: 20508 (Lab R 11-2:05) & 207258 (Lab R 2:15-5:20)

Units: 4

Lectures (both CRNs): MW 11-1:05 in M311

Labs (in M205): R 11-2:05 (CRN 20508) & R 2:15-5:20 (CRN 20728)

Final Exam: Monday 12/04/22, 11-1, M311

Instructor: Rob Jorstad

E-mail: r j o r s t a d @ hancockcollege.edu

Office Phone: x3836

Office Location: M208B

Office Hours: MW 1:10 – 2:10, Tues Noon-3 (on Zoom)

Zoom link: https://hancockcollege.zoom.us/j/7450455154

Student Learning Outcomes (SLOs)

- Recognize and apply fundamental physical concepts.
- Determine values (using calculus, trigonometry, and algebra) given a set of physical conditions.
- Synthesize physical principles to analyze complex or novel situations using calculus, trigonometry, and algebra.
- Record and analyze observations of physical systems (perform and discuss lab experiments in written format).

Course Materials

- A scientific calculator is required for this course. Use one of these models. These are the models allowable for the engineering licensure exam.
- Physics Workbook, Volume 4 (for lectures & homework)
    - On Amazon: https://www.amazon.com/Physics-Workbook-4-Robert-Jorstad/dp/B0858S8M3Z
    - Can also be purchased in Campus Bookstore

  Note: by putting this on Amazon I was able to offer students a lower price than bookstore used to charge.
- Free book online at Openstax - University Physics Volume 2, Chapters 5-16
    - https://openstax.org/books/university-physics-volume-2/pages/5-introduction
- Fundamentals of Physics by Halliday & Resnick (Chapters 21-33) or Physics for Scientists and Engineers by Serway (Chapters 23-34) are more reputable textbooks. If you can find a hard copy of an old edition of either of these books for cheap, I recommend that as a fantastic substitute for Openstax book.

Optional, some people have found Schaum's Outlines helpful. There are two different versions: 3000 Solved Problems in Physics (good for both 140's and 160's) and Schaum's College Physics (good for 140's or the non-calculus problems of 160's). There should be a copy on reserve in the library you could look at to see if it might be good for you. I might still have a copy of each near the front desk in M205 you could skim through as well…

Attendance Policies

- Generally, if you miss class for ANY reason you will receive zero credit for any assignments, pre-labs, quizzes, or exams turned in that day. Unless otherwise specified, assignments collected in class must be turned in at the *beginning* of class. No late work is accepted.
- It is the student's responsibility to obtain any notes or assignments for any missed class.
- Students are responsible for dropping the course should they choose to stop attending. Furthermore, students who miss three or more classes may be dropped from the course by the instructor without notice. If you are absent in lab the first week of class you may be dropped without notice.
- In extremely rare circumstances, an absence may be given special consideration. Please discuss these matters with me in person *outside of class time*.
    - Vacation is never acceptable. This includes leaving for holidays early.
    - Medical *appointments* such as medical or dental visits are NOT acceptable excuses. These must be arranged outside of class time.
    - Any unusual situation not listed above will be handled on a case-by-case basis at the instructor's discretion.
- FYI – Labs often require extra work from multiple personnel to prepare, set-up/tear-down, & coordinate. It is for these reasons there may be instances when lab work cannot be made up.

Grading Policies

- Homework is required for learning but will not be graded.
- The sum total of all lab assignments is worth 19% of your total grade.
- Three mid-term exams are each worth 17% of your total grade.
- The cumulative final exam is worth 30% of your total grade.
- If your final exam score is greater than your lowest midterm, I will allow it to improve your worst mid-term score using the following algorithm:
  - I will compute the difference between your lowest mid-term and the final.
  - I will add 90% of the difference to your worst mid-term score.
  - Example:

***Before* Adjustment**		***After* Adjustment**	
Midterm 1	70	Midterm 1	70
Midterm 2	50	Midterm 2	50
Midterm 3	**40**	**Midterm 3**	**40+36=76**
Final exam	**80**	Final exam	80
90% the difference between Final & worst Midterm	$0.9(80-40)=36$		

- I generally grade on a 91-80-70-60 scale.
  I reserve the right to modify this scale.
  I am very stingy on the A/B borderline.
- A grade calculator can be found online at the following link:

http://www.robjorstad.com/Grade_Calc_with_lab.xlsx

Student Accessibility Services

The fundamental principles of nondiscrimination and accommodation in academic programs are set forth in Section 504 of the Rehabilitation Act of 1973 the Americans With Disabilities Act of 1990 (ADA), and the ADA Amendments Act of 2008 (ADAAA). Necessary accommodations are those services that allow an individual with a disability to have equal access to college courses, facilities and services. The goal of LAP is to ensure equal access while supporting student independence, integration and self-advocacy.

Contact Information is as follows:

SM Campus: Building A, Room A304

LVC Campus: Building 1, Room 102N

SM Phone: 805-922-6966 ext. 3274

LVC Phone: 805-735-3366 ext. 5274

V-Phone: 805-266-7874 -or-
866-327-6218

Website: LAP Website

Standards of Student Conduct

Please review the following document for information regarding Standards of Student Conduct guidelines, principles of discipline, standards of conduct, academic and classroom disciplinary procedures, student grievance procedures, and suspension and expulsion.

Please click here to access the Standards of Student Conduct:
https://catalog.hancockcollege.edu/current/policies/conduct.php

Non-discrimination Statement

The Board of Trustees of the Allan Hancock Joint Community College District recognizes that diversity in the academic environment fosters cultural awareness, mutual understanding and respect, harmony and creativity, while providing positive images for all students. The board commits the district to the active promotion of campus diversity, including recruitment and selection of qualified employees from a wide variety of backgrounds and equal employment opportunities in all aspects of employment, including assignments, promotions, and transfers. In addition, the Board of Trustees recognizes that to be effective, an equal employment opportunity plan must be developed, reviewed and adopted in compliance with Education Code and Title 5 requirements.

Discrimination on the basis of gender, including all forms of sexual harassment, is strictly forbidden by Title VII of the Civil Rights Act, Title IX, and the college policy on sexual harassment. All student discrimination complaints should be addressed to the associate superintendent/vice president of student services, Allan Hancock College, 800 S College Dr, Santa Maria CA, 93454-6399, 1-805-922-6966 ext. 3267. All employee discrimination complaints should be addressed to the director of human resources, Allan Hancock College, 800 S College Dr, Santa Maria CA, 93454-6399, 1-805-922-6966 ext. 3338. The district is also committed to equal access and reasonable accommodations for students with disabilities.

The coordinator for Americans with Disabilities Act (ADA) for students is the director, Learning Assistance Program, Allan Hancock College, 800 S College Dr, Santa Maria CA, 93454-6399, 1-805-922-6966 ext. 3380. All other ADA discrimination complaints should be addressed to the director, human resources, Allan Hancock College, 800 S College Dr, Santa Maria CA, 93454-6399.

College Policies & Procedures

Please click here for further information regarding Allan Hancock College Policies and Procedures related to students: https://catalog.hancockcollege.edu/current/policies/