

CUMBERLAND COUNTY COLLEGE

Course: PI 142 General Physics II

Credits: 3

Prerequisite: PI 141 or permission of instructor

Description:

A continuation of General Physics I, this calculus based course includes the study of the following areas: Thermodynamics, light and optics, electricity and magnetism.

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Evaluating the electric field and potential of a charge distribution
- Solving simple electric or magnetic system
- Assessing the outcome of experimental procedure in electricity and magnetism
- Preparing a meaningful laboratory report
- Differentiating the behavior of a component under DC or AC regime
- Conducting an experimental procedure
- Analyzing optical systems
- Applying the laws of electricity and magnetism

Topical Outline:

- Electrostatics
- Electric field and potential
- Electric current and resistance
- Ohm's law
- DC circuits
- Magnetic fields
- AC circuits and induction
- Wave optics

Student Assessment:

Assessment is based on Mid-semester examinations, Final examination, weekly quizzes, Laboratory reports, and workshop assignments as follows:

The three hour-exams	45%
Weekly quizzes	10%
Final exam	25%
Laboratory Reports	15%
Workshop Assignments	5%

Text:

Fundamentals of Physics by Halliday, Resnik and Waker. Wiley Publishing

Academic Integrity:

Plagiarism is cheating. Plagiarism is presenting in written work, in public speaking, and in oral reports the ideas or exact words of someone else without proper documentation.

Whether the act of plagiarism is deliberate or accidental [ignorance of the proper rules for handling material is no excuse], plagiarism is, indeed, a “criminal” offense.

As such, a plagiarized paper or report automatically receives a grade of **ZERO** and the student may receive a grade of **F** for the semester at the discretion of the instructor.

Tutoring & Project Assist:

If you are having difficulty with work in this class tutoring is available through the Center for Academic & Student Success. If you think that you might have a learning disability, contact Project Assist at 856.691.8600 x 1282 for information on assistance that can be provided to eligible students.

**Before Withdrawing From This Course:**

If a student experiences adverse circumstances while enrolled in this course and considers withdrawing, s/he should see an advisor (division or advisement center) BEFORE withdrawing from the class. A withdrawal may cause harmful repercussions to completion rate standards and overall GPA, which can limit or eliminate future financial aid in addition to causing academic suspension.