

CUMBERLAND COUNTY COLLEGE

Course: PI 105 Physical Science

Credits: 3

Prerequisites: EN 060 and MA 091

Description:

The course offers an introduction to the principles and concepts in chemistry and physics. Students will discuss the basic atomic and molecular model of matter, classification of matter, chemical bonds, differences between nuclear and chemical processes and the concept of potential vs. kinetic energy.

Learning Outcomes:

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

- Apply the Newton's laws of motion
- Examine the conservation laws
- Explain the structure of atoms and molecules
- Distinguish compounds and mixtures
- Recognize Covalence and Ionic bonds
- Discuss the state matter
- Describe a chemical reaction
- Identify nuclear reactions

Topical Outline:

- Motion, and laws of motion
- Potential and Kinetic energy and conservation laws
- Atoms and molecules
- Chemical compounds, mixtures, and alloys
- Chemical bonds
- Nuclear reactions
- State of matter

Text:

Physical Science, 8th Edition, Bill W. Tillery, McGraw Hill Publishing Company

Student Assessment

Assessment is based on Mid-semester examinations, Final examination and Weekly homework assignments as follows:

Three exams	60%
Final Exam	30%
Homework	10%

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.