Department:

Physics

Course Description:

This course includes the study of electricity, magnetism, electromagnetic induction, electromagnetic waves, optics, and atomic and nuclear physics. This is a second semester course for students who require calculus-based physics.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Explain the basic concepts, definitions, units, and general nature of electric, magnetic, and atomic phenomena.
2. Describe the scientific models and laws that govern the physical interactions of electric, magnetic, and atomic phenomena.
3. Demonstrate problem solving skills by applying those scientific models and laws to physical situations involving electric, magnetic, and atomic phenomena.
4. Use appropriate measurement and laboratory techniques.
5. Run computer simulations using physics resources available on the Internet.

Course Content:

A. Electricity
B. Magnetism and Electromagnetic Waves
C. Geometric Optics
D. Nuclear and Atomic Physics

Learning Assessments:

Course competencies will be assessed by exams, lab reports, and computer simulation report.

Instructional Materials:

ISBN: 978-1118230718

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.
Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students must complete the “Disabilities Self-Identification Form” at this link: https://highlandcc.edu/pages/disability-services.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.