

COURSE SYLLABUS

PO Box 1189 1042 W. Hamlet Avenue Hamlet, NC 28345 (910) 410-1700 www.richmondcc.edu

COURSE: PHY 152 COLLEGE PHYSICS II

HOURS: Lecture: <u>3</u> Lab/Shop: <u>2</u> Work Exp/Clinical: <u>0</u> Credits: <u>4</u>

COURSE DESCRIPTION:

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

Note: In accordance with the Comprehensive Articulation Agreement, this course has been approved to satisfy the Universal General Education Transfer Component requirement for natural sciences in the A.S. degree program. This course has been approved to meet the natural sciences requirement for A.A.S. degree programs.

PREREQUISITE(S): PHY 151

COREQUISITE(S): NONE

TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:

Open Educational Resources (OER) are listed in the course Moodle.

STUDENT LEARNING OUTCOMES:

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

- 1. Describe qualitatively and quantitatively the properties associated with electrostatic forces.
- 2. Describe qualitatively and quantitatively the properties associated with electric fields
- 3. Describe qualitatively and quantitatively the properties associated with electric potential.
- 4. Describe qualitatively and quantitatively the properties associated with DC circuits.
- 5. Describe qualitatively and quantitatively the properties associated with magnetism.
- 6. Describe qualitatively and quantitatively the properties associated with electromagnetic induction.
- 7. Describe qualitatively and quantitatively the properties associated with AC circuits.
- 8. Describe qualitatively and quantitatively the properties associated with electromagnetic waves.

***Please refer to the online version of the Richmond Community College Program & Course Catalog and the Student Handbook for current academic and general information.