

# El Paso Community College

## Syllabus

### Part II

## Official Course Description

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| <b>SUBJECT AREA</b>             | <u>Physics</u>                                   |
| <b>COURSE RUBRIC AND NUMBER</b> | <u>PHYS 1417</u>                                 |
| <b>COURSE TITLE</b>             | <u>Principles of Physical Science II</u>         |
| <b>COURSE CREDIT HOURS</b>      | <u>4      3    :    2</u><br>Credits   Lec   Lab |

### I. Catalog Description

Introduces the principles and applications of various physical science concepts in everyday life to develop an appreciation of the physical universe. Covers primarily electricity, magnetism, and the nature of matter. This course may be counted as a lab science for non-science majors. **Perequisite: PHYS 1415.(3:2). Lab fee.**

### II. Course Objectives

Upon completing the course, the student will be able to:

- A. Discuss the principles and applications of electrostatics, including electric charge, electric field, and Coulomb's Law.
- B. Solve problems dealing with electrostatics.
- C. Discuss the principles and applications of current electricity, including electromotive force, electric potential, electric current, resistance and Ohm's Law.
- D. Solve problems dealing with current electricity.
- E. Discuss the principles and applications of magnetism, including magnetic domains, ferromagnetic materials, and magnetic field.
- F. Discuss the principles and applications of electromagnetic induction, including induced electric currents, transformers, Faradays Law and Lenz's Law.
- G. Define, discuss, and answer questions about applications about various nature of matter concepts, including mixture, solution, concentration, evaporation, and chemical reactions.
- H. Define, discuss and answer application questions about sound, including sound sources, sound receivers, pitch, doppler effect and others
- I. Define, discuss and answer application questions about radioactivity, primarily through simulations, including types of radioactivity, half-life, transmutation, and biological effects.

### III. Evaluation

- A. Preassessment  
There is not preassessment for this course.
- B. Postassessment  
The scheduling of examinations, homework, quizzes and laboratory exercise will be the sole prerogative of the instructor. The manner, frequency and extent of these instruments will be indicated to the student in the course syllabus that is distributed at the beginning of the semester. The philosophy of the college endorses frequent evaluation.

- C. Remediation  
The instructor may provide a student with a means of improving a grade. The timing, form and method of remediation will be determined by the instructor and included in the course syllabus.
- D. Grading  
All grading will follow current EPCC Catalog standards. The assignment of letter grades to percent scores obtained in various class activities will be determined by the instructor and included in the course syllabus.

**IV. Disability Statement (American with/Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**V. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.