

# El Paso Community College

## Syllabus

### Part II

## Official Course Description

<b>SUBJECT AREA</b>	<u>Physics</u>
<b>COURSE RUBRIC AND NUMBER</b>	<u>PHYS 1315</u>
<b>COURSE TITLE</b>	<u>Principles of Physical Science I</u>
<b>COURSE CREDIT HOURS</b>	<u>3                    3            0</u> Credits Lec            Lab

### I. Catalog Description

Introduces the principles of physical science and applications in everyday life to develop an appreciation of the physical universe. Covers primarily physics, thermodynamics, and optics. This course may be counted as a lab science for non-science majors. **Prerequisite: MATH 0305 or by placement exam or MATH 0404 or by placement exam. Corequisite: PHYS 1115. (3:0).**

### II. Course Objectives

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

- A. Discuss the concept of measuring as it relates to fundamental properties and standard units and make accurate measurements of these fundamental properties.
- B. Describe the various concepts of Kinematics. These include both translation and rotational concepts of distance, displacement, velocity, speed and acceleration.
- C. Explain various concepts of Dynamics. These include Newton's Laws work, power and energy and conservation laws.
- D. Explain the concepts of temperature, heat and gas laws as they are relate to thermodynamics.
- E. Describe the atomic nature of matter and relate it to the different phases of matter including physical properties such as density, floatation, pressure, scaling.
- F. Describe the concepts of Optics and Light. These include reflection, refraction, lens effects, mirror effects, and other applications.
- G. Describe the concepts in color, including the electromagnetic spectrum, color vision, color addition, and color subtraction.
- H. **Critical thinking skills** students will engage in creative thinking, innovation, inquiry, and analysis, evaluations, and synthesis of information.
- I. **Communication skills** students will demonstrate effective written, oral, and/or visual communication.
- J. **Teamwork skills** students will demonstrate the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- K. **Empirical and quantitative skills** students will demonstrate the ability to formulate an inquiry and then identify and follow an investigative process using empirical and/or qualitative/quantitative reasoning to satisfy the inquiry.

### **III. Evaluation**

#### **A. Preassessment**

There is no preassessment for this course.

#### **B. Postassessment**

The scheduling of examinations, homework, and quizzes 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 (Americans 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.