

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Physics</u>
COURSE RUBRIC AND NUMBER	<u>PHYS 1315</u>
COURSE TITLE	<u>Principles of Physical Science I</u>
COURSE CREDIT HOURS	<u>3 3 :</u> <u>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 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. Pre-assessment

There is no pre-assessment for this course.

B. Post-assessment

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.

VI. Title IX and Sex Discrimination

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.