

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Physics</u>
COURSE RUBRIC AND NUMBER	<u>PHYS 2289</u>
COURSE TITLE	<u>Research Techniques in Physics</u>
COURSE CREDIT HOURS	<u>2 1 :</u> Credits Lec Lab

I. Catalog Description

Provides practical training and experiences in laboratory investigations, while presenting a research approach to the principles of modern physics with emphasis on scientific methodologies and techniques. Students work under the supervision of a faculty member after a research project of mutual interest is selected. Students design and perform laboratory investigations and present and defend the results of the project. **Requires Instructor's Approval. Prerequisite: PHYS 2426. (1:3). Lab fee.**

II. Course Objectives

LECTURE AND LABORATORY

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

- A. Select a specific research project with the approval of a faculty member.
- B. Perform a literature survey on the selected topic using appropriate scientific publications and resources on the Internet.
- C. Design appropriate scientific studies to include proper protocols using experimental and/or descriptive techniques.
- D. Perform the investigations under the supervision of a faculty member using techniques and instrumentation available at El Paso Community College and/or selected work sites.
- E. Organize and determine the validity of the data using tables, graphs and charts, and statistical analysis where appropriate.
- F. Draw conclusions from the results of the study and make recommendations for further research if needed.
- G. Present progress reports and a final report to a group of science faculty and students during scheduled seminars.

III. Evaluation

The instructor may give exams at his/her discretion, but emphasis will be placed on work performance, the quality of the research results and evaluation, and the oral and written presentation of the project.

Grading Scale:

90-100 = A

80-89 = B

70-79 = C

60-69 = D

Below 60 = F

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.