

El Paso Community College

Syllabus

Part II

Official Course Description

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| 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. Prerequisites: PHYS 2326 and 2126. (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.

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.