

UNIVERSITY OF PUERTO RICO AT ARECIBO
PHYSICS/CHEMISTRY DEPARTMENT
BACHELOR OF TECHNOLOGY IN INDUSTRIAL CHEMICAL PROCESSES

Course N°: FISI 3004

Title of Course: General Physics Laboratory II

Credits: 1

Open to: Industrial Chemical Processes
Technology students

Contact Hours: 3/weekly

Pre-requisite: none

Textbook: Physics Laboratory Experiments

Author: J.D. Wilson & C.A. Hernández

Co-requisite: FISI 3002

Publisher: Brooks/Cole

Publication Year: 2010

Supplemental Materials:

- *Diccionario de Física*, McGraw Hill, 1991.
- Encyclopedia of Physics, VCH Publishers, 1991.
- www.wolframalpha.com

Term: Second Semester

Course Coordinator: Prof. Ángel Acosta

Course Description: Laboratory experiences in waves, electric and magnetic fields, and electronics.

Course Objectives:

- Study the laws of physics.
- Apply the physical and mathematical principles that govern nature.
- Develop reasoning and analysis skills in the solution of problems involving physical principles.

Relation of Course to Program Objectives:

1	2	3	4
x			

Relation of Course to Program Outcomes:

1	2	3	4	5	6	7	8	9	10	11
x	x	x								

Evaluation/Grade Reporting: laboratory reports (50%), 2 partial exams (40%), laboratory notebook (10%)

Laboratory experiences	Teaching/Learning Strategies Time Distribution (hours)
Hooke's Law	Team work (6)
Stationary waves	Team work (3)
Sound waves	Team work (3)
Reflection and refraction	Team work (3)
Electric field	Team work (3)
Ohm's law	Team work (3)
Series and parallel circuits	Team work (3)
Kirchhoff rules	Team work (3)
Oscilloscope	Team work (3)
RLC circuits	Team work (3)
Mirrors and lenses	Team work (3)
Electron's charge	Team work (3)
Exams	(6)
Total	45