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

Course N°: FISI 3003

Title of Course: General Physics Laboratory I

Credits: 1

Contact Hours: 3/weekly

Pre- requisite: none

Co-requisite: FISI 3001

Open to: Industrial Chemical Processes Technology students

Textbook: Physicas Laboratory Experiments
Author: J.D. Wilson & C.A. Hernández
Publisher: Brooks/Cole

Publication Year: 2010

Supplemental Materials:

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

Term: First Semester

Course Coordinator: Prof. Ángel Acosta

Course Description: Laboratory experiences in mechanics, periodic movement and thermodynamics.

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)**
Experimental measures	Team work (6)
Simple Pendulum	Team work (3)
Vectors	Team work (3)
Projectiles	Team work (3)
Centripetal Force	Team work (3)
Friction	Team work (3)
Conservation Laws	Team work (3)
Torque and Equilibrium	Team work (3)
Harmonic Movement	Team work (3)
Specific Heat	Team work (3)
Rotational movement and inertia	Team work (3)
Free fall	Team work (3)
Exams	(6)
Total	45