

Universidad de Puerto Rico
Recinto de Río Piedras
Facultad de Ciencias Naturales
Departamento de Física

Instructor: Peter Feng

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Lugar, día y horas de Oficina: Office: FB-127; Lab: FB-268, Monday 1-3 pm

Día y horas de Tutoría: will be provided by TA in class room

FISI 3013 / Sección 1-7 / Semestre 2
LABORATORIO DE FÍSICA UNIVERSITARIA I

Descripción del curso

Un crédito. Tres horas de laboratorio semanales. Co-requisito FISI 3011. Este curso complementará los conocimientos adquiridos por el estudiante en clase. Consiste de una serie de experimentos dirigidos a verificar las leyes de la mecánica principalmente.

Texto

Para la teoría correspondiente a cada experimento se recurre al texto empleado en clase, mientras que para la parte experimental se utilizan guías específicas.

Texto de Referencia: Physics Giancoli, Sixth Edition (9780131846616) by Douglas C. Giancoli

Metas del curso

- Involucrar a cada estudiante con experiencias significativas en las que participen en el proceso experimental, e incluso tener experiencia en diseñar investigación.
- Ayudar al estudiante a desarrollar destrezas básicas y herramientas para la física experimental, así como también analizar datos experimentales.
- Ayudar al estudiante en el dominio de los conceptos básicos de física.
- Ayudar al estudiante a comprender el rol de la observación directa en física y a distinguir entre inferencias basadas en la teoría y los resultados de los experimentos.
- Ayudar a los estudiantes a desarrollar destrezas de aprendizaje cooperativo que son vitales para el éxito en muchos aspectos de la vida.

Política de asistencia

La asistencia a las reuniones de laboratorio es compulsoria. En todas las reuniones, cada estudiante debe firmar la hoja de asistencia; en caso de no asistir a una de ellas, es su responsabilidad informarse acerca de los temas y experimentos desarrollados, así como también de los anuncios hechos en dicha reunión. Cada estudiante, durante todo el semestre, debe traer consigo los siguientes materiales: pen drive, libreta, bolígrafo, lápiz, regla y calculadora (con funciones trigonométricas y exponenciales); es posible que el profesor le indique traer algún material adicional.

Reglas generales

- En la primera reunión, el estudiante debe presentar su hoja de matrícula al Instructor para verificar si realmente está matriculado en la sección a la que asiste. No debe estar matriculado en una sección y asistir a otra.
- En todas las reuniones de laboratorio y durante los exámenes, los celulares deben mantenerse apagados.

- c. No se reponen pruebas cortas ni experimentos, a no ser que presente por escrito una justificación válida. Si no pudo asistir a un experimento, debe notificarlo inmediatamente a su Instructor para acordar la fecha de reposición (si tiene la justificación por escrito).
- d. El estudiante no debe tener más de dos ausencias no justificadas; en caso contrario, debe darse de baja del curso.
- e. Todo trabajo se debe entregar en la fecha asignada, al entrar al salón de laboratorio. Pasado este instante se descontarán puntos y pasada una semana ya no se aceptará el trabajo.

Itinerario del curso (Sujeto a cambios)

3013 Schedule

week	MES	M	Tu	W	Th	Fri	Activities
1	Jan	15	16	17	18	19	Meeting and assignment
2		22	23	24	25	26	Introduction (Safety, PC, equipment, material)
3	Feb	29	30	31	1	2	Experiment1: Introduction of motion
4		5	6	7	8	9	Experiment2: Uniformly accelerated motion https://www.youtube.com/watch?v=YUDA-gXs2Kc https://www.youtube.com/watch?v=PCLjIjAUBnw
5		12	13	14	15	16	Experiment3: Gravitation acceleration
6		19	20	21	22	23	Experiment4: Vectors
7	Mar	26	27	28	29	1	Experiment5: Projectiles
8		4	5	6	7	8	Make up and Quiz 1 for labs 1-5
9		11	12	13	14	15	Experiment6: The Atwood Machine
10		18	19	20	21	22	Experiment7: centripetal force
11		25	26	27	28	29	Experiment8: Work and energy
12	April	1	2	3	4	5	Experiment9: One dimensional collision
13		8	9	10	11	12	Experiment10: Rotation/Moments of Inertia
14		15	16	17	18	19	Make up, quiz 2 (Labs 6-10)
15		22	23	24	25	26	Final grade
16	May	29	30	1	2	3	

Morning section: 8:30 am to 11:20 am

Afternoon section: 1:00 pm to 3:50 pm

Grade:

Lab work and reports 75%

Quiz 1, 2 20%

Additional activities 5%

Scale

A 90-100%

B 80-89.9%

C 70-79.9%

D 60-69.9%

F 0-59.9%

It is not acceptable for three times of absences from lab work whatever the reasons.

Three times of Doctors' certifications will be acceptable for an incomplete grade

Additional information about coordinator

Lecturer: Dr. Peter Feng

Office: FB-127; Lab: FB-268

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Rights of Students with Disabilities:

UPR complies with all Federal and State Laws and regulations regarding discrimination, including the Americans with Disabilities Act 1990 (ADA) and the Commonwealth of Puerto Rico Law 51. Students receiving services through Rehabilitation Vocational must contact the professor at the beginning of the semester in order to plan for a reasonable accommodation and any required support equipment according to the recommendations given by the Oficina de Asuntos para Personas con Impedimentos (OAPI) of the Dean of Students. Likewise, students with special need that require some type of accommodation must contact the professor at the beginning of the semester.

REGULATION ON DISCRIMINATION BY SEX AND GENDER IN THE FORM OF SEXUAL VIOLENCE:

"The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must turn to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint. "

REASONABLE ACCOMMODATION:

The University of Puerto Rico complies with all state and federal laws and regulations related to discrimination, including "The American Disabilities Act" (ADA law) and Law #51 from the Puerto Rico Commonwealth (Estado Libre Asociado de Puerto Rico). Every student has the right to request and receive reasonable accommodation and Vocational Rehabilitation Services (VRS). Those students with special needs that require some type of particular assistance or accommodation shall explicitly communicate it directly to the professor. Students who are receiving VRS services shall communicate it to the professor at the beginning of the semester so that appropriate planning and the necessary equipment may be requested according to the Disabilities Persons Affairs Office (Oficina de Servicios a Estudiantes con Impedimentos –OSEI) from the Students' Deanship office. Any other student requiring assistance or special accommodation shall also communicate directly with the professor. Reasonable accommodations requests or services DO NOT exempt the student from complying and fulfilling academic and course related requirements and responsibilities.

ACADEMIC INTEGRITY:

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.

To ensure user data integrity and security, hybrid and distance education courses are offered through the institutional learning management system, which employs secure connection and authentication protocols. The system authenticates the users' identity with the username and password of their institutional accounts. Users are responsible for keeping their password secure and not sharing with others.