



SAINT LOUIS UNIVERSITY
MADRID

PHYS 1620 M36: Engineering Physics I Laboratory
Spring 2018

Class Days and Time: R, 16:00-18:20

Classroom: PAH-21

Prerequisite(s): MATH-1420. Must enroll also in PHYS-1610

Credit(s): 1

Instructor: Javier Gamo Aranda

Instructor's Email: javier.gamo@slu.edu

Instructor's Campus Phone: 91 554 58 58, ext. 266

Office: PAH-202

Office Hours: T 16:00 – 17:00, R 18:30 – 19:30, and upon request

Course Description: The laboratory constitutes a link between the ideas developed theoretically and real world. In this sense the student complements and consolidates the knowledge acquired in the theoretical class with the work developed in the laboratory. This is a basic course in engineering physics designed to provide a thorough, comprehensive and practical coverage of basic dynamics concepts.

Course Goals and Student Learning Outcomes: At the end of the course, students should be able to:

- Apply knowledge of mathematics, science, and engineering.
- Design and conduct experiments, as well as to analyze and interpret data.
- Work on multidisciplinary teams.
- Identify, formulate, and solve engineering problems.
- Understand professional and ethical responsibility.
- Communicate effectively.
- Recognize the need for, and engage in life-long learning.
- Develop a knowledge of contemporary issues.
- Use the techniques, skills, and modern engineering tools necessary for engineering practice.

Saint Louis University - Madrid Campus is committed to excellent and innovative educational practices. In order to maintain quality academic offerings and to conform to relevant accreditation requirements, the Campus regularly assesses its teaching, services, and programs for evidence of student learning outcomes achievement. For this purpose anonymized representative examples of student work from all courses and programs is kept on file, such as assignments, papers, exams, portfolios, and results from student surveys, focus groups, and reflective exercises. *Thus, copies of student work for this course, including written assignments, in-class exercises, and exams may be kept on file for institutional research, assessment and accreditation purposes.* If students prefer that Saint Louis University - Madrid Campus does not keep their work on file, they need to communicate their decision in writing to the professor.

Required Texts and Materials: Engineering Physics I Laboratory Sessions Handbook. Spring 2018. Saint Louis University - Madrid

Attendance Policy: You should sign-in at the beginning of each laboratory session and are required to stay either until the end of the lab session or until all measurements and analysis have been recorded in your laboratory notebook. You may sign out only after the approval of a lab demonstrator.

Course Requirements and Grading Rationale/System:

The following table summarizes the grading system of this course:

	1st Mid-Term Grade	2nd Mid-Term Grade	Final Grade
Lab Notebook	20%	30%	15%
Lab Report	35%	65%	30%
Pre-lab questions	5%	5%	5%
Exam	40%	-	50% (25% 1 st Mid-Term + 25% Final)
TOTAL GRADE	100%	100%	100%

Continuous assessment of lab notebook. Lab notebooks will be checked at the end of each practical session. Only when the results are satisfactory will the students be allowed to proceed to the next experiment. The lab notebooks will be marked at the end of each semester.

Assessment of experimental write-ups. Reports of the experiments should be handed in before the start of the new lab session. If reports are handed in late, but within one week of the deadline, then 20% of the marks will be forfeit. Write-ups handed in more than one week after the deadline will be marked for the student's information but these marks will not count in the module assessment. Every effort will be made to return the marked write-up within a period of two weeks.

Assessment of pre-lab questions. At the beginning of the class the student must give to the instructor the answers to the questions that can be downloaded in the course Blackboard.

Assessment by exams. Two exams will be done: one halfway through the course (1st Mid-Term Exam) and another at the end (Final Exam) about materials related with the work done. Due exams are taken individually, not in groups. Exams will consist of a set of theoretical questions and an experimental exercise related to the sessions covered in class.

Extra Credit. Extra assignments could be also proposed along the course to increase the final mark.

E-mail: Campus and course announcements will often be handled by e-mail. Students should check their "@slu.edu" e-mail regularly.

University Statement on Academic Integrity: Academic integrity is honest, truthful and responsible conduct in all academic endeavors. The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care and community service via which SLU embodies its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern.

The governing University-level Academic Integrity Policy can be accessed on the Provost's Office [website](#). Additionally, SLU-Madrid has posted its academic integrity policy online: <http://www.slu.edu/madrid/academics>. As a member of the University community, you are expected to know and abide by these policies, which detail definitions of violations, processes for reporting violations, sanctions and appeals.

The professor will review these matters during the first weeks of the term. Please direct questions about any facet of academic integrity to your faculty, the chair of the department of your academic program, or the Academic Dean of the Madrid Campus.

University Title IX Statement: Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify SLU's Title IX deputy coordinator, Marta Maruri, whose office is located on the ground floor of Padre Rubio Hall, Avenida del Valle, 28 (mmaruri@slu.edu; 915-54-5858, ext. 213) and share the basic fact of your experience with her. The Title IX deputy coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you wish to speak with a confidential source, you may contact the counselors at the SLU-Madrid's Counseling Services on the third floor of San Ignacio Hall (counselingcenter-madrid@slu.edu; 915-54-5858, ext. 230) or Sinews Multipletherapy Institute, the off-campus provider of counseling services for SLU-Madrid (www.sinews.es; 917-00-1979). To view SLU-Madrid's sexual misconduct policy and for resources, please visit the following web address: <http://www.slu.edu/Documents/Madrid/campus-life/SLUMadridSexualMisconductPolicy.pdf>.

Students with Special Needs: In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about:

- Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor.
- University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to <https://www.slu.edu/madrid/academics/student-resources>.

Students with a documented disability who wish to request academic accommodations must contact Disability Services to discuss accommodation requests and eligibility requirements. Once successfully registered, the student also must notify the course instructor that they wish to access accommodations in the course. Please contact Disability Services at disabilityservices-madrid@slu.edu or +915 54 58 58, ext. 230 for an appointment. Confidentiality will be observed in all inquiries. Once approved, information about the student's eligibility for academic accommodations will be shared with course instructors via email from Disability Services. For more information about academic accommodations, see "Student Resources" on the SLU-Madrid webpage.

Note: Students who do not have a documented disability but who think they may have one are encouraged to contact Disability Services.

Spring 2018 Course Schedule:

Engineering Physics I Laboratory - PHYS 1620 M36				
Week	Day	Topic	# of Activities	Comments
1	11-Jan	Presentation. Intro to Error Theory		First Day of Classes
2	18-Jan	Session 1 - Lab 1: Measurement and Uncertainty	4	
3	25-Jan	Session 2 - Lab 2: Motion in One Dimension	3	21 Jan: Last Day to Drop a Class without a Grade W and/or Add a Class; Last Day to Choose Audit (AU) or Pass/No Pass (P/NP) Options 26 Jan: Application Deadline for Spring Semester Degree Candidates
4	1-Feb	Session 3 - Lab 3: Force and Newton's laws	4	
5	8-Feb	Session 4 - Lab 4: Friction Force	1	
6	15-Feb	First Mid-Term Exam		14 Feb: Ash Wednesday Registration for Summer 2018 Begins
7	22-Feb	Winter break		20 Feb: MidTerm Exam 22 - 23 Feb: No classes (Winter Break)
8	1-Mar	Session 5 - Lab 5: Work and Energy (part 1)	3	27 Feb: Professors' Deadline to Submit Midterm Grades
9	8-Mar	Session 6 - Lab 5: Work and Energy (part 2)	2	9 Mar: Last Day to Drop a Class and Receive a Grade of W
10	15-Mar	Session 7 - Lab 6: Linear Impulse and Momentum	2	15 Mar: Last Day to Submit Transfer Application for Fall Semester
11	22-Mar	Session 8 - Lab 7: Rotational Motion (part 1)	3	
12	29-Mar	Holy Week / Semana Santa		26 - 30 Mar: Semana Santa Holiday (Campus Closed)
13	5-Apr	Session 9 - Lab 7: Rotational Motion (part 2)	2	4 Apr: Registration for Fall 2018 Semester Begins
14	12-Apr	Session 10 - Lab 8: Oscillatory Motion	2	
15	19-Apr	Session 11 - Lab 9: Fluids	2	
16	26-Apr	Review Session		
17	3-May	Final Exam		1 May: Día del Trabajador (Campus Closed) 2 May: Día de la Comunidad (Campus Closed)
18	10-May			11 May: University Housing Move-out Date 12 May: Commencement 13 May: Professors' deadline to submit spring 2018 final grades