## Universida<sub>de</sub>Vigo

Subject Guide 2017 / 2018

IDENTIFYIN				
Physics: Ph				
Subject	Physics: Physics I			
Code	P03G370V01102			
Study	(*)Grao en			
programme				
Descriptors		Choose	Year	Quadmester
	6	Basic education	1st	1st
Teaching				
language				
Department				
Coordinator				
Lecturers	González Fernández, Pio Manuel			
E-mail	pglez@uvigo.es			
Web				
General	Didactic aims			
description	Dominate the concepts and physical laws of the mech			
	Differentiate the physical appearances *involucrados in the resolution of a problem of engineering.			ineering.
	Analyse, interpret and explain daily physical situations			
	Resolve problems of mechanics, fields and waves appl			
	Dominate experimental technicians and the handle of magnitudes.	instrumentation fo	r the measure of	physical
	Design and schedule an experimental setting in team	related with appea	rances of the phy	sics applied.
	Dominate the acquisition of experimental data and his	statistical treatme	ent	• •
	Dominate technicians of graphic representation and ca			
	Present a report or technical memory (oral and writing	ı) with utilisation o	f the new technol	ogies.

#### Competencies

Code

- B2 CG-02: Capacidade para comprender os seguintes fundamentos necesarios para o desenvolvemento da actividade profesional: Físicos.
- C2 (\*)CE-02: Comprensión e dominio dos conceptos básicos sobre as leis xerais da mecánica, campos e ondas e a súa aplicación para a resolución dos problemas propios da enxeñaría.
- D6 (\*)CBI 6: Adquirir capacidade de resolución de problemas.

Learning outcomes			
Expected results from this subject	Tra	ining and	d Learning
		Resu	ılts
Lana relation between competitions *and results, *and he weight of each competition inside wool matter show * in him *pdf *attach.	B2	C2	D6
http://forestales.uvigo.es/sites/default/files/02%20**Fisica%20*L*Pdf#**overlay-**context=are/**content/competitions-*and-resulted-of-*learning-by-mal	ter		

Contents		
Topic		
1. KINEMATICS	1.1.KINEMATICS OF THE MATERIAL POINT	
	1.2.KINEMATICS OF THE RIGID SYSTEMS	
2. DYNAMICS	2.1. DYNAMIC OF THE POINT AND THE SYSTEMS	
	2.2. MOMENTS OF INERTIA	
	2.3. DYNAMIC OF THE BEEN USED TO RIGID	
3. STATIC	3.1. LAWS OF STATIC	
4. MECHANICAL SYSTEMS	4.1. FRICTION BETWEEN USED TO	
	4.2. YOU SCHEME SIMPLE	
	4.3. ELASTICITY	
5. MECHANICAL SWINGS	5.1. FREE SWINGS	
	5.2. SWINGS CUISHIONED AND FORCED	
6. MECHANICS OF FLUIDS	6.1. HYDROSTATIC	
	6.2. HYDRODINAMICS	

Planning			
	Class hours	Hours outside the classroom	Total hours
Master Session	20	30	50
Troubleshooting and / or exercises	15	22.5	37.5
Laboratory practises	17	25.5	42.5
Reports / memories of practice	1	15	16
Short answer tests	1.5	0	1.5
Troubleshooting and / or exercises	2.5	0	2.5

<sup>\*</sup>The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
	Description
Master Session	Exhibition by part of the professor of the contents of the matter, foundations and theoretical bases and guidelines of the exercises to develop by the student.
Troubleshooting and / or exercises	The professor gives the general guidelines for the resolution of problems or exercises related with the matter. The student has to develop the suitable or correct solutions by means of the application of formulas and the application of procedures.
Laboratory practises	Activities realised in the laboratory of application of the knowledges to concrete situations and of acquisition of basic skills and *procedimentaLEs related with the matter. The *alumnado adopts an active role, developing diverse actions (realisation of an experiment, setting, manipulation of scientific instrumentation and taking of experimental data) to build his knowledge (graphic representation and deduction of the physical law that governs the experiment).

Personalized attention	
Methodologies Description	
Master Session	<del>-</del>
Laboratory practises	
Troubleshooting and / or exercises	

Assessment			
	Description	Qualification	n Training and Learning Results
Reports / memories of practice	Formative evaluation, realised of a continuous way, carried out fundamentally in the classes of laboratory that allows a continuous follow-up and a *realimentación constructive.  It will value the presence and active participation in classes and in works *grupales, by means of checklists and by direct observation, and the quality of the works and individual reports and of group.	20	B2 C2 D6
Short answer tests	They will evaluate the theoretical and practical knowledges of the matter using like objective instrument the answer written of several questions of theoretical application-practical.	35	B2 C2 D6
Troubleshooting and / or exercises	They will evaluate the theoretical and practical knowledges of the matter (35%) and the purchased in the classes of laboratory (10%) using like objective instrument the resolution written of problems and/or exercises.	45	B2 C2 D6

### Other comments on the Evaluation

&\*nbsp;In each methodology (Memories of practices, Proof of short answer and Resolution of problems) requires show a basic and minimum competition, that establishes in Apt=30. Numerical final qualification on scale of 10 points, according to the valid legislation.

Sources of information
Basic Bibliography
Complementary Bibliography
Tipler P.A, <b>Física</b> , Barcelona, 1992,
González P., Lusquiños F, <b>Fundamentos Físicos para Forestais</b> , Vigo, 2010,
Sears F.W., Zemansky M.W., Young H.D., Freedman R.A, <b>Física</b> , México, 1999,
Gettys W.E., Keller F.J., Skove M.J, <b>Física clásica y moderna</b> , Madrid, 1992,
González P., Lusquiños F, <b>Física en imaxes</b> , Vigo, 2007,

### Recommendations

# Subjects that continue the syllabus Physics: Physics II/P03G370V01202

## **Subjects that are recommended to be taken simultaneously** Mathematics: Mathematics and IT/P03G370V01103