Universida_{de}Vigo

Subject Guide 2017 / 2018

IDENTIFYIN					
Mechanical	Engineering Design				
Subject	Mechanical				
	Engineering				
	Design				
Code	V04M141V01214				
Study	(*)Máster				
programme	Universitario en Enxeñaría				
	Industrial				
Descriptors	ECTS Credits		Choose	Year	Quadmester
Descriptors	3		Optional	1st	2nd
Teaching	English		phionai	131	2110
language	Liigiisii				
Department					
Coordinator	Casarejos Ruiz, Enrique				
Lecturers	Casarejos Ruiz, Enrique				
E-mail	e.casarejos@uvigo.es				
Web	http://www.faitic.uvigo.es				
General	Classical and numerical calculations	ation of Mechanical Flemer	ntc		
description	Classical and Hamerical calcul	ation of Mechanical Elemen	163		
- Know the m - Know calcu	oults from this subject nost common components of the late the elements more commo eneral appearances of the cons	nly used in machines.	machines.		Training and Learning Results C14 D9
Contents					
Topic					
Presentation	of the contents	- Introduction			
Chafta was w	and backson	- Syllabus			
Shafts, gears	s and bearings	 Definition of the ele theoretical Calculat 	ion and selec	tion	
Dollar all all	and anvince	- Software of calculat			
	and springs.	- Definition of the ele		tion	
Lead screws.		- theoretical Calculat		LION	
lointe		- Software of calculat			
Joints:		 Definition of the ele theoretical Calculat 		tion	
- screws		- Software of calculat			
Introduction	to FEM	- FEM calculation	.1011		
min oduction	CO I LIM	- Definition of a FEM	case		
		- Demindon of a LIM	cusc		
-· ·					
Planning		CI I			Tatal barres
		Class hours		outside the	Total hours
Markar Carri		10	classro	om	10
Master Sessi		10	0		10
110ubleshoot	ting and / or exercises	5	0		5

Case studies / analysis of situations	5	0	5	
Group tutoring	2	0	2	
Troubleshooting and / or exercises	0	30	30	
Practical tests, real task execution and / or	2	0	2	
simulated.				
Jobs and projects	0	21	21	

^{*}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	Review of previous contents of design / calculation of machines.	
	Presentation of syllabus	
Troubleshooting and / o exercises	r Resolution of exercises	
Case studies / analysis of situations	Discussion of particular cases	
Group tutoring	Discussion and resolution of doubts about the development of works and projects	

Personalized attention			
Tests	Description		
Troubleshooting and / or exercises	Individual discussions for the resolution of problems and/or exercises proposed		
Jobs and projects	Individual discussions to solve the doubts related to the works and projects proposed		

Assessment				
	Description	Qualification	Training ar	nd Learning
			Res	sults
Troubleshooting and / or exercises	Resolution of exercises	50	C14	D9
Practical tests, real task execution and / or	Resolution and presentation of problems	20	C14	D9
simulated.	(examination **)			
Jobs and projects	Resolution of realistic cases proposed	30	C14	D9

Other comments on the Evaluation

The continuous evaluation will be done considering both the regular exercises and the project to hand in. The quota of the exam will pass to the project.

In anyone gives up (officially) the continuous evaluation, the examination for the evaluation will be done together with the proposed project, and the distribution of the evaluation will be of 50% for the examination.

It is expected an adequate ethical behaviour of the student. In case of detecting unethical behaviour (copying, plagiarism, unauthorized use of electronic devices, etc.) shall be deemed that the student does not meet the requirements for passing the subject. In this case, the overall rating in the current academic year will be Fail (0.0).

The use of any electronic device for the assessment tests is not allowed unless explicitly authorized. The fact of introducing unauthorized electronic device in the examination room will be considered reason for not passing the subject in the current academic year and will hold overall rating (0.0).

Sources of information	
Basic Bibliography	
various authors, Shigley's mechanical engineering design, McGraw-Hill,	
Complementary Bibliography	
Mott, R.L., diseño de elementos de máquinas, Pearson, 2006	
Norton, R., Diseño de Máquinas , Pearson, 2000	
Ansys, documentation,	

Recommendations