

UNIVERSIDAD DE CASTILLA - LA MANCHA GUÍA DOCENTE

1. General information

 Course: PHYSIFB
 Code: 11302

 Type: BASIC
 ECTS credits: 6

 Degree: 378 - UNDERGRADUATE DEGREE PROGRAMME IN ARCHITECTURE
 Academic year: 2022-23

Center: 606 - SCHOOL OF ARCHITECTURE OF TOLEDO

Year: 1

Group(s): 40

Duration: First semester

Main language: Spanish

Use of additional

languages:

Web site:

Bilingual: N

Lecturer: ENRIQUE SA	cturer: ENRIQUE SANCHEZ SANCHEZ - Group(s): 40						
Building/Office	Department	Phone number	Email	Office hours			
Sabatini / 0.19	CIENCIAS AMBIENTALES	5461	e.sanchez@uclm.es				

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course

Course	com	petences

Code Description

Adequate and applied knowledge of the principles of general mechanics, statics, mass geometry and vector fields in architecture and

town planning

E04 Adequate and applied knowledge of the principles of thermodynamics, acoustics and optics in architecture and urban planning

Adequate and applied knowledge of the principles of fluid mechanics, hydraulics, electricity and electromagnetism in architecture and

town planning

G01 Capacity for analysis and synthesis
G02 Organizational and planning skills
G03 Information management capacity

G04 Problem solving
G05 Decision making
G06 Critical thinking

G15 Sensitivity to environmental issues

G19 Innovation

G20 Motivation for quality

G22 Mastery of Information and Communication Technologies (ICT)

G23 Correct oral or written communication

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Ability to demonstrate knowledge of concepts and principles related to the basics of wave, thermodynamics and electromagnetism.

Ability to learn and work autonomously on the physical foundations.

Ability to actively participate in the training process, both in theory and laboratory classes, problems, seminars and other complementary activities.

Ability to work with physical measuring instruments, perform experimental measurements, analyze and interpret the results and prepare a report of the study conducted.

Ability to analyze and solve basic exercises.

Recognize the relevant physical variables in each problem, learn how to measure them and calibrate the error in the measurement and results of your calculations.

To study physical reality through theoretical models and apply these models to specific cases and use them to predict phenomena.

From the description of a problem the student must be able to identify (1) the laws governing the phenomenon in question and (2) the data that are relevant to the case and finally arrive at the result that is requested

Acquire habits of reasoning, interpretation and analysis.

Acquire habits of critical thinking and scientific rigor that can be applied to their future professional activities.

6. Units / Contents

Unit 1:

Unit 2:

Unit 3:

Unit 4:

Unit 5:
Unit 6:
Unit 7:
Unit 8:
Unit 9:
Unit 10:
Unit 11:
Unit 12:

7. Activities, Units/Modules and M	Methodology						
Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Assessment tests	E03 E04 E05	1.12	28	N	-	
Study and Exam Preparation [OFF-SITE]	Problem solving and exercises	E03 E04 E05 G01 G02 G03 G04 G06 G15 G19 G22 G23	3.6	90	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	E03 E04 E05 G01 G02 G03 G04 G05 G06	1.12	28	Υ	Υ	
Final test [ON-SITE]	Assessment tests	E03 E04 E05 G01 G02 G03 G04 G05 G06 G23	0.08	2	Υ	Υ	
Progress test [ON-SITE]	Assessment tests	E03 E04 E05 G01 G02 G03 G04 G05 G06 G23	0.08	2	Υ	N	
		Total:	6	150			
Total credits of in-class work: 2.4			Total class time hours: 60				
Total credits of out of class work: 3.6			Total hours of out of class work: 90				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System					
Evaluation System	Continuous assessment	Non- continuous evaluation*	Description		
Assessment of problem solving and/or case studies	10.00%	0.00%			
Progress Tests	20.00%	0.00%			
Final test	70.00%	100.00%			
Total:	100.00%	100.00%			

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours
Final test [PRESENCIAL][Assessment tests]	2
Progress test [PRESENCIAL][Assessment tests]	2
Unit 1 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	6
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 2 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	6
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 3 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	6
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	16
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	6
Unit 4 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	6
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 5 (de 12):	
Activities	Hours

Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	15
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 6 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	14
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 7 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 8 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 9 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	5
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 10 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	6
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 11 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Unit 12 (de 12):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Global activity	
Activities	hours
Progress test [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Problem solving and exercises]	90
Class Attendance (theory) [PRESENCIAL][Assessment tests]	28
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	28
Final test [PRESENCIAL][Assessment tests]	2
	Total horas: 150

10. Bibliography and Sour	ces					
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Giancoli, Douglas C.	Física para universitarios	Pearson Educación		970-26-0133-9 (v.II)	2002	
Salu, Yehuda	Physics for architects	Infinity Publishing		0-7414-1929-7 (rúst.	2004	
http://www.physicsforarchitects.com/						
Tipler, Paul Allen	Física para la ciencia y la tecnología	Reverté		84-291-4410-2	2005	
	Física con ordenador					
	http://www.sc.ehu.es/sbweb/fis	ica/default.htm				