UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: FACILITIES II
Type: CORE COURSE
Degree: 378 - UNDERGRADUATE DEGREE PROGRAMME IN ARCHITECTURE
Center: 606 - SCHOOL OF ARCHITECTURE OF TOLEDO
Year: 5
Main language: Spanish
Use of additional languages:
Web site:

Code: 11328
ECTS credits: 6
Academic year: 2023-24
Group(s): 40
Duration: C2
Second language: English
English Friendly: Y
Bilingual: N

Lecturer: **ADELAIDA DEL PUERTO GARCIA** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
Toletum	INGENIERÍA CIVIL Y DE LA EDIFICACIÓN	925268800 ext. 5353	Adelaida.Puerto@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 competences

Code	Description
E18	Ability to maintain facilities
E36	Ability to conceive, calculate, design, integrate and execute in buildings and urban complexes Water supply, treatment and drainage systems
E37	Ability to design, calculate, design, integrate and implement heating and air-conditioning systems in buildings and district assemblies
E38	Ability to solve passive environmental conditioning
E39	Ability to solve thermal and acoustic conditioning, climate control
E40	Ability to solve energy efficiency and natural lighting problems
E41	Suitability for construction management
E42	Ability to evaluate the works
E43	Ability to design building and urban installations for electrical transformation and supply, from communication to audio-visual.
E44	Ability to design building and urban installations for acoustic conditioning and artificial lighting
E55	Applied knowledge of ecology, sustainability and the principles of conservation of energy and environmental resources
G01	Capacity for analysis and synthesis
G02	Organizational and planning skills
G03	Information management capacity
G04	Problem solving
G05	Decision making
G06	Critical thinking
G09	Working in an international context
G15	Sensitivity to environmental issues
G16	Creativity
G19	Innovation
G22	Mastery of Information and Communication Technologies (ICT)

5. Objectives or Learning Outcomes

Course learning outcomes

Description

To provide the student with the ability to design, calculate, design, integrate into buildings and urban complexes and to install water supply, treatment and drainage, heating and air-conditioning systems, as well as the ability to design building and urban electrical transformation and supply installations, audiovisual communication, acoustic conditioning and artificial lighting, and to maintain installations, all by applying the relevant technical standards.

Application of the principles of universal accessibility and design for all in the field of transport facilities.

Additional outcomes

6. Units / Contents

Unit 1:
- **Unit 1.1**
- **Unit 1.2**

Unit 2:
- **Unit 2.1**
- **Unit 2.2**
- **Unit 2.3**

Unit 3:

Unit 4:
- **Unit 4.1**
- **Unit 4.2**
- **Unit 4.3**
- **Unit 4.4**
- **Unit 4.5**
- **Unit 4.6**

Unit 5:
- **Unit 5.1**
- **Unit 5.2**
- **Unit 5.3**

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Cooperative / Collaborative Learning	E36	2	50	Y	N	
In-class Debates and forums [ON-SITE]	Creation of Mind Maps	E38	1	25	Y	N	
Project or Topic Presentations [ON-SITE]	Case Studies	G06	2	50	Y	N	
Problem solving and/or case studies [ON-SITE]	project-based learning	E55	1	25	Y	N	
		Total:	**6**	**150**			
		Total credits of in-class work: 6					**Total class time hours: 150**
		Total credits of out of class work: 0					**Total hours of out of class work: 0**

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 active participation	15.00%	0.00%	
Oral presentations assessment	5.00%	0.00%	
Practicum and practical activities reports assessment	10.00%	20.00%	
Assessment of problem solving and/or case studies	70.00%	80.00%	
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
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	2

In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	1
Project or Topic Presentations [PRESENCIAL][Case Studies]	2
Problem solving and/or case studies [PRESENCIAL][project-based learning]	1
Unit 1 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	8
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	4
Project or Topic Presentations [PRESENCIAL][Case Studies]	8
Problem solving and/or case studies [PRESENCIAL][project-based learning]	4
Group 40:	
Initial date: 01-02-2024	**End date:** 15-02-2024
Unit 2 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	10
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	5
Project or Topic Presentations [PRESENCIAL][Case Studies]	10
Problem solving and/or case studies [PRESENCIAL][project-based learning]	5
Group 40:	
Initial date: 16-02-2024	**End date:** 14-03-2024
Unit 3 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	10
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	5
Project or Topic Presentations [PRESENCIAL][Case Studies]	10
Problem solving and/or case studies [PRESENCIAL][project-based learning]	5
Group 40:	
Initial date: 15-03-2024	**End date:** 28-03-2024
Unit 4 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	10
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	5
Project or Topic Presentations [PRESENCIAL][Case Studies]	10
Problem solving and/or case studies [PRESENCIAL][project-based learning]	5
Group 40:	
Initial date: 29-03-2024	**End date:** 25-04-2024
Unit 5 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	10
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	5
Project or Topic Presentations [PRESENCIAL][Case Studies]	10
Problem solving and/or case studies [PRESENCIAL][project-based learning]	5
Group 40:	
Initial date: 26-04-2024	**End date:** 23-05-2024
Global activity	
Activities	**hours**
Problem solving and/or case studies [PRESENCIAL][project-based learning]	25
In-class Debates and forums [PRESENCIAL][Creation of Mind Maps]	25
Project or Topic Presentations [PRESENCIAL][Case Studies]	50
Class Attendance (theory) [PRESENCIAL][Cooperative / Collaborative Learning]	50
	Total horas: 150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	City	ISBN	Year	Description
Richard Weston	UTZON: inspiration, vision, architecture	Edition Blondal	Hellerup	8788978982	2002	Obra completa de Utzon con descripciones y material gráfico de alta calidad. Disponible en biblioteca uclm. Se adjunta enlace
	https://catalogo.biblioteca.uclm.es/opac/BaratzCL/O7254/ID5da65974?ACC=161					
César Martín Gómez	Los apuntes de salubridad e higiene de Francisco Javier Sáenz de OIZA	Navarra	Pamplona	978-84-92409-20-4	2010	Apuntes de las clases impartidas por Saenz de Oiza en la ETSAM que contienen temas de análisis soleamiento/proyección de sombras Disponible en la uclm
	https://catalogo.biblioteca.uclm.es/opac/BaratzCL/O7254/ID5da65974/NT16					
Edward Mazria	El libro de la energía solar PASIVA	GG	Barcelona	9789686085761	1996	El autor describe todas las estrategias posibles de aprovechamiento solar pasivo en la arquitectura
	https://www.academia.edu/34756185/Mazria_El_Libro_De_La_Energia_Solar_Pasiva					
Félix Solaguren-Beascoa	ARNE JACOBSEN : dibujos 1958-1965	Fundación caja de arquitectos	Barcelona		2002	Uno de los tres libros de la trilogía que describe la obra y dibujos de Arne Jacobsen publicado por la fundación caja de arquitectos. Disp adjunta enlace
	https://catalogo.biblioteca.uclm.es/opac/BaratzCL/O7254/ID5da65974/NT4					
Javier Vázquez Moreno et Al	Números gordos en el PROYECTO DE INSTALACIONES	Cinter Divulgación Técnica	Madrid	978-84-939305-1-6	2012	Aproximación a los órdenes de magnitud en el cálculo de las instalaciones de los edificios. Disponible en la uclm
	https://eds.s.ebscohost.com/eds/detail/detail?vid=1&sid=22e2c274-1069-45ab-9e50-648fc90071b6%40redis&bdata=JkF1dGhUeXBlPWIwLHNoaWlmbGFuZz1cyZzaXRlPWVkcy1saXZl#AN=uclm.uclm.es.710367&db=cat09149a					
Félix Solaguren-Beascoa	ARNE JACOBSEN: aproximación a la obra completa	Fundación caja de arquitectos	Barcelona	84-931388-4-3	2001	Uno de los tres libros de la trilogía que describe la obra y dibujos de Arne Jacobsen publicado por la fundación caja de arquitectos. Disp adjunta enlace
	https://catalogo.biblioteca.uclm.es/opac/BaratzCL/O7254/ID5da65974/NT4					
Peter COOK	EXPERIMENTAL Architecture	Universe	NYC	087663130S	1970	La integración de las instalaciones en la arquitectura experimental de mediados del s. XX
	https://ingenio.upm.es/primo-explore/fulldisplay?docid=TN_cdi_proquest_miscellaneous_1306936128&context=PC&vid=34UPM_VU1&lang=es_ES&search_scope=TAB1_SCOPE1&adaptor=primo_central_multiple_fe&tab=tab1&query=any,contains,experimental%20architecture%20%20peter%20c					
Simon Sadler	ARCHIGRAM: architecture without architecture	The MIT Press	Cambridge	0262195216	2005	Integración de las instalaciones en proyectos metabolistas
	https://eds.s.ebscohost.com/eds/detail/detail?vid=4&sid=22e2c274-1069-45ab-9e50-648fc90071b6%40redis&bdata=JkF1dGhUeXBlPWIwLHNoaWlmbGFuZz1cyZzaXRlPWVkcy1saXZl#AN=138443&db=nlebk					
Félix Solaguren-Beascoa	ARNE JACOBSEN : dibujos 1958-1965	Fundación caja de arquitectos	Barcelona	84-931388-4-3	2001	Uno de los tres libros de la trilogía que describe la obra y dibujos de Arne Jacobsen publicado por la fundación caja de arquitectos. Disp adjunta enlace
	https://catalogo.biblioteca.uclm.es/opac/BaratzCL/O7254/ID5da65974/NT4					
Juan Monjo Carrió	Patologías y TÉCNICAS DE INTERVENCIÓN en las instalaciones	Munilla Lería	Madrid	8489150230	1999	Técnicas de intervención en instalaciones de edificios a rehabilitar
	https://www.worldcat.org/es/title/Tratado-de-rehabilitacion.-T.-3-Patologia-y-tecnicas-de-intervencion-:-elementos-estructurales/oclc/733956804					
Basilio Pavón Maldonado	Tratado de Arquitectura Hispano-musulmana. TOMO I: EL AGUA	CSIC	Madrid	8400070704	1990	Descripción gráfica de alta calidad de los sistemas hidráulicos de la arquitectura hispano musulmana
	https://ingenio.upm.es/primo-explore/fulldisplay?docid=TN_cdi_crossref_primary_10_1017_S0041977X00004705&context=PC&vid=34UPM_VU1&lang=es_ES&search_scope=TAB1_SCOPE1&adaptor=primo_central_multiple_fe&tab=tab1&query=any,contains,tratado%20arquitectura%20hispano%					
Jacques Sbriglio	L,unité d,habitation de Marseille	Parentheses	Marseille	2863640453	1992	Ejemplo detallado de la integración de las instalaciones desde el arranque de proyecto en su diseño estructural y la compartimentación Disponible publicación complementaria en biblioteca UPM