UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: BASES OF CONSTRUCTION MATERIALS
Code: 11306
Type: BASIC
ECTS credits: 6
Degree: 378 - UNDERGRADUATE DEGREE PROGRAMME IN ARCHITECTURE
Academic year: 2023-24
Center: 606 - SCHOOL OF ARCHITECTURE OF TOLEDO
Group(s): 40
Year: 1
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **JUAN ALONSO APERTE** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
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Lecturer: **JOSE MARIA GARCIA CRESPO** - Group(s): **40**

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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
E14	Ability to apply technical and constructive standards
E19	Applied knowledge of the plastic, elastic and constructive qualities of heavy building materials
E20	Applied knowledge of the physical and chemical characteristics of building materials
E21	Applied knowledge of production procedures, pathology and use of construction materials
E22	Applied knowledge of conventional construction systems and their pathology
E28	Applied knowledge of ecology, sustainability and the principles of conservation of energy and environmental resources
E29	Applied knowledge of solid, continuous media and soil mechanics
G01	Capacity for analysis and synthesis
G03	Information management capacity
G04	Problem solving
G06	Critical thinking
G07	Working in a team
G08	Working in an interdisciplinary team
G12	Self-directed learning

5. Objectives or Learning Outcomes

Course learning outcomes

Description

To provide the student with the ability to calculate, design, integrate into buildings and urban complexes and to execute interior partitioning systems, carpentry, staircases and other finished works, as well as enclosure systems, roofing and other thick works.

In the field of building structures and foundation solutions, it takes the results of structural analysis and geotechnical engineering into account in order to design and integrate the different construction elements made of concrete, steel or any other material with which the structure is made into the building, taking into account the legislation in force.

To transmit to the student an adequate knowledge of conventional construction systems and their pathology, physical and chemical characteristics and production procedures, as well as to propose the study and research of new ways of thinking and facing construction in constant adaptation to the new techniques actively proposed by industry and the market.

To provide the student with the ability to apply the technical and construction standards, to evaluate the works and to execute, supervise and preserve the building structures, the foundations and civil works and the finished work, as well as the ability to preserve the thick work.

6. Units / Contents

Unit 1:
Unit 2:
Unit 3:
Unit 4:
Unit 5:

Unit 6:
Unit 7:
Unit 8:
Unit 9:
Unit 10:

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]	project-based learning	E14 E19 E20 E21 E22 E28 E29	1.2	30	N	-	
Class Attendance (practical) [ON-SITE]	project-based learning	E14 E19 E20 E21 E22 E28 E29 G01 G03 G04 G06 G07 G08 G12	1.2	30	N	-	
Practicum and practical activities report writing or preparation [OFF-SITE]	project-based learning	E14 E19 E20 E21 E22 E28 E29 G01 G03 G04 G06 G07 G08 G12	1.76	44	Y	N	
Study and Exam Preparation [OFF-SITE]	Self-study	E14 E19 E20 E21 E22 E28 E29	1.76	44	N	-	
Final test [ON-SITE]	Assessment tests		0.08	2	Y	Y	
		Total:	**6**	**150**			
		Total credits of in-class work: 2.48					**Total class time hours: 62**
		Total credits of out of class work: 3.52					**Total hours of out of class work: 88**

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
Final test	50.00%	100.00%	
Assessment of problem solving and/or case studies	50.00%	0.00%	
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
Unit 1 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 2 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 3 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 4 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 5 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3

Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 6 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 7 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 8 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 9 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	6
Study and Exam Preparation [AUTÓNOMA][Self-study]	6
Unit 10 (de 10):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	3
Class Attendance (practical) [PRESENCIAL][project-based learning]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	6
Study and Exam Preparation [AUTÓNOMA][Self-study]	6
Global activity	
Activities	**hours**
Class Attendance (theory) [PRESENCIAL][project-based learning]	30
Class Attendance (practical) [PRESENCIAL][project-based learning]	30
Practicum and practical activities report writing or preparation [AUTÓNOMA][project-based learning]	44
Study and Exam Preparation [AUTÓNOMA][Self-study]	44
Final test [PRESENCIAL][Assessment tests]	2
	Total horas: 150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Lloyd, Seton	Arquitectura de los orígenes	Aguilar		84-03-60065-8	1989	
Martin, Bruce	Las juntas en los edificios /	Gustavo Gili,		8425210526	1981	
Muller, Werner	Atlas de arquitectura. 1, Generalidades ; De Mesopotamia a B	Editorial		84-206-6204-6	1984	
Ortega Andrade, Francisco	Historia de la construcción. Libro cuarto, Visigoda e islámi	Universidad		84-89728-40-2 (T.4)	1998	
Ortega Andrade, Francisco	Historia de la construcción. Libro segundo, Romana y paleocr	Universidad		84-88412-97-5	1994	
Palacios, José Carlos	Trazas y cortes de cantería en el renacimiento español	Munilla-Lería		84-89150-60-5	2003	
Peraza Sánchez, Fernando	Guía de la madera I : productos básicos y carpintería : adap	AITIM, Asociación de Investigación Técnica de l		978-84-87381-41-6 (v	2010	
Peraza Sánchez, Fernando	Tableros de madera de uso estructural / [Fernando Peraza Sán	Asociación de Investigación Técnica de las Indu		84-87381-28-6	2004	
Price, Monica (1956-)	Rocas ornamentales : identificación, usos, geología, asociac	Blume		978-84-8076-757-6	2008	
Rabasa Díaz, Enrique	Forma y construcción en piedra : de la cantería medieval a l	Akal		84-460-1542-0	2000	
Reichel, Alexander	Plaster, render, paint and coastings : details, products, ca	Birkhäuser Detail-Institut für Internationale		3-7643-7110-2	2004	

Rodríguez Nevado, Miguel Angel	Diseño estructural de madera : una aproximación en imágenes	AITIM	84-87381-16-2	1999
Schmitt, Heinrich	Tratado de construcción	Gustavo Gili	84-252-1729-6	2004
Slavid, Ruth	Arquitectura en madera	Blume	978-84-9801-027-5	2005
Soriano Alfaro, Vicent (1950-)	Arquitectura de tierra en el sur de Marruecos : el oasis de	Fundación Caja de Arquitectos	84-934688-0-0	2007
Sánchez Mazaira, Antonio	La madera laminada encolada	Fundación Escuela de Edificación	84-86957-44-3	1992
Vandelvira, Alonso de	El tratado de arquitectura de Alonso de Vandelvira	Caja de Ahorros Provincial	84-7231-390-5(o.c.)	1977
Vignola (1507-1573)	Regla de los cinco órdenes de arquitectura	Comisión de Cultura del Colegio Oficial de Apar	84-300-1921-9	1981
Villasuso, Bernardo M.	La madera en la arquitectura	El Ateneo	950-02-5302-X	2004
Wachsmann, Konrad (1901-1980)	Building the wooden house : technique and design	Birkhäuser	3-7643-5134-9	1995
Zurita Ruiz, José	Diccionario básico de la construcción	Ceac	84-329-2905-0	1985
	Arquitectura de tierra : Encuentros Internacionales, Centro	Ministerio de Fomento, Centro de Publicaciones	84-498-0387-X	1999
	Atlas of deformational and metamorphic rock fabrics	Springer-Verlag	3-540-11278-2 (R.F.A	1982
	El arte de la piedra : teoria y práctica de la cantería	CEU Ediciones	978-84-92456-62-8	2009
	Guía de la madera : un manual de referencia para el uso de l	AITIM	84-87381-07-3	1994
	Ensayos sobre arquitectura y cerámica = Essays on architectu	Mairena Libros Escuela Técnica Superior de Ar	978-84-92641-14-7	2009
	La Pierre, la connaitre et savoir l'utiliser : habitat et en	GRET	2-11-084819-7	1984
	La arcilla tecnológica : nuevo origen para la arquitectura c	Actar	84-95273-84-5	2001
	Stucco, stone, and steel : new materials in open space desig	Callwey Verlag Birkhäuser-Publishers for Arch	3-7643-6502-1	2001
	Tecnología de la construcción	CEAC	84-329-2620-5	2008
	Tectónica : monografías de arquitectura, tecnología y constr	ATC	1136-0062	1998
Acocella, Alfonso (1954-)	Stone architecture : ancient and modern construction skills	Skira Lucense	88-7624-696-7	2006
Adell Argilés, Josep María	Arquitectura de ladrillos del siglo XIX : técnica y forma	Fundación Universidad-Empresa	84-86227-76-3	1987
Adell Argilés, Josep María	Arquitectura sin fisuras	Munilla Lería	84-89150-35-4	2000
Adell Argilés, Josep María	El ladrillo, material moderno	Sección de Ladrillo Cara Vista de la Federación	84-404-2333-0	1988
Adell Argilés, Josep María	La fábrica armada	Munilla-Lería	84-89150-39-7	2000
Affentranger, Christoph	Neue Holzarchitektur in Skandinavien = New wood architecture	Birkhäuser	0-8176-5458-5	1997
Allen, Edward	Cómo funciona un edificio : principios elementales	Gustavo Gili	84-252-1089-5	2008
Arnau Amo, Joaquín	La Teoría de la arquitectura en los tratados	Tebas Flores	84-7360-089-4 (vol.	1987
Avellaneda, Jaume	Los revestimientos de piedra	Bisagra	84-923125-5-6	1999
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Baud, Gerad	Tecnología de la construcción	Blume	84-8076-060-5	1994
Bender, Richard	Una visión de la construcción industrializada	Gustavo Gili	84-252-0636-7	1976
Bermejo Polo, Juan	Vademecum de la construcción : materiales, mezclas, instalac	Dossat 2000	978-84-96437-72-2	2007
CURSO SOBRE REVESTIMIENTO DE FACHADAS (1990. Toledo)	Curso sobre revestimiento de fachadas	Servicio de Publicaciones de la Junta de Comuni	84-7788-970-8	1992
Cassinello, F.	Construcción. Hormigonería	Rueda	84-7207-007-7	1974
Castellanos Miguélez, Agustín	Guía práctica de la cantería	Editorial de los Oficios	84-87469-45-0	1999
Chudley, Roy	Manual de construcción de edificios	Gustavo Gili	978-84-252-2005-0	2008

Fallacara, Giuseppe (1973-)	Verso una progettazione stereotomica = Towards a stereotomic	Aracne	978-88-548-1228-4	2007
Fanelli, Giovanni	El principio del revestimiento : prolegómenos a una historia	Akal	84-460-1180-8	1999
Fernández Ruiz, Enrique	Revestimientos de fachadas : manual práctico	Progensa	84-86505-46-1	1997
Fontoira, Rafael	Fábricas de cantería	Diputación Provincial de Pontevedra, Servicio d	84-8457-043-6	2000
Fornes y Gurrea, Manuel	El arte de edificar : compuesto de Observaciones sobre la pr	Poniente	84-85935-03-9	1982
Frampton, Kenneth	Historia crítica de la arquitectura moderna	Gustavo Gili	968-6085-68-8	1987
García Ramos, Martín	El mundo de los canteros y el léxico del mármol en Macael y	Arráez Ayuntamiento	84-89606-03-X	1996
Gómez Canales, Francisco	Manual de cantería	Fundación Santa María la Real-C.E.R.	84-89483-95-7	2008
Hugues, Theodor	Bloques cerámicos : detalles, productos, ejemplos	Gustavo Gili	978-84-252-2185-9	2008