UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: METALLIC AND CONCRETE STRUCTURES: DESIGN AND CALCU
Code: 56320
Type: CORE COURSE
ECTS credits: 6
Degree: 351 - UNDERGRADUATE DEGREE PROG. IN MECHANICAL ENGINEERING (ALM)
Academic year: 2023-24
Center: 106 - SCHOOL OF MINING AND INDUSTRIAL ENGINEERING
Group(s): 56
Year: 3
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **JOSE TEJERO MANZANARES** - Group(s): **56**

Building/Office	Department	Phone number	Email	Office hours
ElHuyar/2.05	MECÁNICA ADA. E ING. PROYECTOS	926052320	jose.tejero@uclm.es	The tutorial schedule will be published at the beginning of each semester on the bulletin board of the center.

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
A01	To understand and have knowledge in an area of study that moves on from the general education attained at secondary level and usually found at a level that, while supported in advanced text books, also includes some aspects that include knowledge found at the cutting edge of the field of study.
A02	To know how to apply knowledge to work or vocation in a professional manner and possess the competences that are usually demonstrated by the formulation and defence of arguments and the resolution of problems in the field of study.
A04	To be able to transmit information, ideas, problems and solutions to a specialized audience.
A07	Knowledge of Information Technology and Communication (ITC).
A08	Appropriate level of oral and written communication.
A09	Ethical and professional commitment.
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CB02	Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area.
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
CB04	Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences.
CB05	Have developed the necessary learning abilities to carry on studying autonomously
D05	Knowledge and ability to design and make calculations for industrial structures and construction.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Additional outcomes

6. Units / Contents

Unit 1:
Unit 2:
Unit 3:
Unit 4:
Unit 5:
Unit 6:

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-		A01 A02 A04 A07 A08 A09					

SITE]	Lectures	CB01 CB02 CB03 CB04 CB05 D05	1.36	34	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	0.24	6	N	-	
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	0.6	15	N	-	
Writing of reports or projects [OFF-SITE]	Self-study	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	3.4	85	N	-	
Final test [ON-SITE]	project-based learning	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	0.04	1	Y	Y	
Final test [ON-SITE]	Group Work	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	0.16	4	Y	Y	
Writing of reports or projects [OFF-SITE]	Group Work	A01 A02 A04 A07 A08 A09 CB01 CB02 CB03 CB04 CB05 D05	0.2	5	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
Projects	70.00%	70.00%	
Practicum and practical activities reports assessment	15.00%	15.00%	
Oral presentations assessment	15.00%	15.00%	
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][Lectures]	34
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	6
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	15
Writing of reports or projects [AUTÓNOMA][Self-study]	85
Final test [PRESENCIAL][project-based learning]	1
Final test [PRESENCIAL][Group Work]	4
Writing of reports or projects [AUTÓNOMA][Group Work]	5

Global activity

Activities	hours
Writing of reports or projects [AUTÓNOMA][Self-study]	85
Final test [PRESENCIAL][Group Work]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	6
Writing of reports or projects [AUTÓNOMA][Group Work]	5
Final test [PRESENCIAL][project-based learning]	1
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	15
Class Attendance (theory) [PRESENCIAL][Lectures]	34
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Ministerio de Fomento	Código Técnico de la Edificación	Ministerio de Fomento			2010	
Ministerio de Fomento	Instrucción EAE	Ministerio de Fomento			2010	
Ministerio de Fomento	Estructural EHE	Ministerio de Fomento			2008	
Argüelles Álvarez, R.	Cálculo de Estructuras, Tomo II	Escuela Superior de	Madrid	84-600-2412-1	2015	

		Ingenieros de Montes			
Calavera Ruiz, J. M.	Cálculo de Estructuras de Cimentación	INTEMAC	Madrid	84-88764-09-X	2000
Juan Tomás Celigüeta	Curso de Análisis Estructural	EUNSA	Pamplona	84-313-1612-8	1998
Argüelles Álvarez, R.	Cálculo de Estructuras, Tomo I	Escuela Superior de Ingenieros de Montes	Madrid	84-600-2411-3	2015
Argüelles Álvarez, R.	La Estructura Metálica Hoy	Bellisco	Madrid	84-600-5672-4	2010
Monfort Leonart , José	Estructuras Metálicas para Edificación	Universidad Politécnica de Valencia	Valencia	84-8363-021-4	2006
Montoya, Messeguer y Morán	Hormigón Armado	Gustavo Gili	Barcelona	978-84-252-2307-5	2009
Argüelles Álvarez, R.	Análisis de Estructuras	Fundación del Conde del Valle de Salazar	Madrid	84-86793-37-8	1996
Argüelles Álvarez, R.	Cálculo de Estructuras, Tomo III	Escuela Superior de Ingenieros de Montes		84-600-4189-1	2015