UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course:	AERONAUTICAL PRODUCTION ENGINEERING	**Code:**	56734
Type:	CORE COURSE	**ECTS credits:**	6
Degree:	403 - UNDERGRADUATE DEGREE PROGRAMME IN AEROSPACE ENGINEERING	**Academic year:**	2023-24
Center:	303 - E.DE INGENIERÍA INDUSTRIAL Y AEROESPOACIAL DE TOLEDO	**Group(s):**	40
Year:	4	**Duration:**	First semester
Main language:	Spanish	**Second language:**	
Use of additional languages:		**English Friendly:**	N
Web site:		**Bilingual:**	N

Lecturer: **MARIA REYES GARCIA CONTRERAS** - Group(s): **40**

Building/Office	Department	Phone number	Email	Office hours
Sabatini/1.57	MECÁNICA ADA. E ING. PROYECTOS	926052624	mariareyes.garcia@uclm.es	

Lecturer: **PEDRO REY MARTÍNEZ** - Group(s): **40**

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	MECÁNICA ADA. E ING. PROYECTOS		Pedro.Rey@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
CA01	Ability to carry out bibliographic searches, use databases and other sources of information for its application in tasks related to Technical Aeronautical Engineering.
CA02	Ability to efficiently design experimentation procedures, interpret the data obtained and specify valid conclusions in the field of Aeronautical Technical Engineering.
CA03	Ability to autonomously select and carry out the appropriate experimental procedure, operating the equipment correctly, in the analysis of phenomena within the scope of Engineering.
CA04	Ability to select advanced tools and techniques and their application in the field of Aeronautical Technical Engineering.
CA05	Knowledge of the methods, techniques and tools as well as their limitations in the application for the resolution of problems typical of Aeronautical Technical Engineering.
CA06	Ability to identify and assess the effects of any solution in the field of Aeronautical Technical Engineering within a broad and global context and the ability to interrelate the solution to an engineering problem with other variables beyond the technological field, which must be considered.
CA07	Knowledge, understanding and ability to apply business and project management practices, as well as their limitations in the exercise of the profession of Technical Aeronautical Engineer.
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.
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
CE06	Knowledge of the concept of company, institutional and legal framework of the company. Business organization and management.
CE11	Knowledge of the technological benefits, the optimization techniques of the materials and the modification of their properties by means of treatments.
CE12	Knowledge of manufacturing processes.
CE23	Knowledge applied to Engineering of: Technological performance, optimization techniques for materials used in the aerospace sector and treatment processes to modify their mechanical properties.
CE25	Knowledge applied to Engineering of: The methods of calculation and development of defense materials and systems; the management of experimental techniques, equipment and measuring instruments typical of the discipline; the numerical simulation of the most significant physical-mathematical processes; inspection, quality control and fault detection techniques; the most appropriate repair methods and techniques.
CG02	Planning, drafting, direction and management of projects, calculation and manufacturing in the field of aeronautical engineering that have as their object, in accordance with the knowledge acquired as established in section 5 of order CIN/308/2009, aerospace vehicles , aerospace propulsion systems, aerospace materials, airport infrastructures, air navigation infrastructures and any space, traffic and air transport management system.
CG03	Installation, operation and maintenance in the field of aeronautical engineering that have as their object, in accordance with the knowledge acquired as established in section 5 of order CIN/308/2009, aerospace vehicles, aerospace propulsion systems, materials aerospace, airport infrastructure, air navigation infrastructure and any space, traffic and air transport management system.
CG04	Verification and Certification in the field of aeronautical engineering that have as their object, in accordance with the knowledge acquired as established in section 5 of order CIN/308/2009, aerospace vehicles, aerospace propulsion systems, aerospace materials ,

airport infrastructures, air navigation infrastructures and any space, traffic and air transport management system.

CG05	Ability to carry out activities of projection, technical direction, expert opinion, report writing, opinions, and technical advice on tasks related to Aeronautical Technical Engineering, exercise of functions and genuine aerospace technical positions.
CT02	Knowledge and application of Information and Communication Technologies (ICT).
CT03	Correct use of oral and written communication.
CT04	Knowledge of ethical commitment and professional ethics.
CT05	Knowledge of the principles of management skills and teamwork.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

6. Units / Contents

Unit 1:
Unit 2:
Unit 3:
Unit 4:
Unit 5:
Unit 6:
Unit 7:
Unit 8:

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]	Lectures	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	1.08	27	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	0.6	15	N	-	
Group tutoring sessions [ON-SITE]	Guided or supervised work	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	0.6	15	N	-	
Writing of reports or projects [OFF-SITE]	Cooperative / Collaborative Learning	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	0.8	20	Y	Y	
Other off-site activity [OFF-SITE]	Problem solving and exercises	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	1.2	30	N	-	
Study and Exam Preparation [OFF-SITE]	Self-study	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	1.6	40	N	-	
Final test [ON-SITE]	Assessment tests	CA01 CA02 CA03 CA04 CA05 CA06 CA07 CB02 CB04 CB05 CE06 CE11 CE12 CE23 CE25 CG02 CG03 CG04 CG05 CT02 CT03 CT04 CT05	0.12	3	Y	Y	
		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
Theoretical papers assessment	15.00%	15.00%	
Final test	85.00%	85.00%	
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]	27
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	30
Group tutoring sessions [PRESENCIAL][Guided or supervised work]	15
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	15
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	20
Study and Exam Preparation [AUTÓNOMA][Self-study]	40
Final test [PRESENCIAL][Assessment tests]	3

Global activity

Activities	hours
Group tutoring sessions [PRESENCIAL][Guided or supervised work]	15
Study and Exam Preparation [AUTÓNOMA][Self-study]	40
Class Attendance (theory) [PRESENCIAL][Lectures]	27
Final test [PRESENCIAL][Assessment tests]	3
Other off-site activity [AUTÓNOMA][Problem solving and exercises]	20
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	15
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	30
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
	Production Engineering Research and Development https://www.springer.com/journal/11740 Journal of Industrial and Production Engineering https://www.tandfonline.com/toc/tjci21/current					Electronic ISSN 1863-7353, Print ISSN 0944-6524