

**1. General information****Course:** AIRCRAFT SYSTEMS**Type:** CORE COURSE**Degree:** 403 - UNDERGRADUATE DEGREE PROGRAMME IN AEROSPACE ENGINEERING**Center:** 303 - E.DE INGENIERÍA INDUSTRIAL Y AEROSPOACIAL DE TOLEDO**Year:** 3**Main language:** Spanish**Use of additional languages:****Web site:****Code:** 56727**ECTS credits:** 6**Academic year:** 2023-24**Group(s):** 40**Duration:** C2**Second language:** English**English Friendly:** N**Bilingual:** N**Lecturer:** LUIS SANCHEZ RODRIGUEZ - 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
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.
CE03	Basic knowledge of the use and programming of computers, operating systems, databases and computer programs with application in engineering.

5. Objectives or Learning Outcomes**Course learning outcomes**

Description

Knowledge of the avionics systems, their interrelation and possibilities of integration

Knowledge of the basic terminology related to concurrent systems, real-time systems, and formal modeling and formal verification techniques.

Knowledge of the terminology related to avionics.

6. Units / Contents**Unit 1:**

Unit 1.1

Unit 1.2

Unit 2:

Unit 2.1

Unit 2.2

Unit 2.3

Unit 2.4

Unit 3:

Unit 3.1

Unit 3.2

Unit 3.3

Unit 4:

Unit 4.1

Unit 4.2

Unit 4.3
Unit 5:
Unit 5.1
Unit 5.2
Unit 6:
Unit 6.1
Unit 6.2
Unit 6.3
Unit 7:
Unit 8:
Unit 8.1
Unit 8.2
Unit 8.3

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]	Lectures	CA04 CA05 CA06 CE03	0.8	20	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CA04 CA05 CA06 CE03	0.8	20	Y	N	
Computer room practice [ON-SITE]	Problem solving and exercises	CA01 CA02 CA03 CA04 CA05 CA06 CE03	0.6	15	Y	N	
Practicum and practical activities report writing or preparation [OFF-SITE]	Group Work	CA02 CA03 CA06 CE03	0.8	20	Y	N	
Writing of reports or projects [OFF-SITE]	Group Work	CA01 CA02 CA03 CA04 CA05 CA06 CE03	1.2	30	Y	N	
Study and Exam Preparation [OFF-SITE]	Self-study	CA01 CA04 CA05 CA06 CE03	1.6	40	N	-	
Final test [ON-SITE]	Assessment tests	CA01 CA02 CA03 CA04 CA05 CA06 CE03	0.12	3	Y	Y	
Project or Topic Presentations [ON-SITE]	Assessment tests	CA01 CA02 CA03 CA04 CA05 CA06 CE03	0.08	2	Y	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
Final test	60.00%	100.00%	
Oral presentations assessment	15.00%	0.00%	
Theoretical papers assessment	15.00%	0.00%	
Assessment of problem solving and/or case studies	10.00%	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
Practicum and practical activities report writing or preparation [AUTÓNOMA][Group Work]	20
Writing of reports or projects [AUTÓNOMA][Group Work]	30
Study and Exam Preparation [AUTÓNOMA][Self-study]	40
Final test [PRESENCIAL][Assessment tests]	3
Project or Topic Presentations [PRESENCIAL][Assessment tests]	2
Unit 1 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Computer room practice [PRESENCIAL][Problem solving and exercises]	3
Unit 2 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3

Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Computer room practice [PRESENCIAL][Problem solving and exercises]	3
Unit 3 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Computer room practice [PRESENCIAL][Problem solving and exercises]	3
Unit 4 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Unit 5 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Computer room practice [PRESENCIAL][Problem solving and exercises]	3
Unit 6 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	1
Unit 7 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Computer room practice [PRESENCIAL][Problem solving and exercises]	3
Unit 8 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Global activity	
Activities	hours
Class Attendance (theory) [PRESENCIAL][Lectures]	20
Computer room practice [PRESENCIAL][Problem solving and exercises]	15
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	20
Writing of reports or projects [AUTÓNOMA][Group Work]	30
Study and Exam Preparation [AUTÓNOMA][Self-study]	40
Final test [PRESENCIAL][Assessment tests]	3
Practicum and practical activities report writing or preparation [AUTÓNOMA][Group Work]	20
Project or Topic Presentations [PRESENCIAL][Assessment tests]	2
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Carry R. Spitzer	Avionics: elements, software and functions	CRC PReSS			2007	
Chris Binns	Aircraft Systems. Instruments, Communications, Navigation, and Control	Wiley - IEEE Press		9781119259862	2019	