



IDENTIFYING DATA

Project direction and management

Subject	Project direction and management			
Code	O07G410V01701			
Study programme	(*)Grao en Enxeñaría Aeroespacial			
Descriptors	ECTS Credits	Type	Year	Quadmester
	6	Mandatory	4th	1st
Teaching language	#EnglishFriendly Spanish			
Department				
Coordinator	Orgeira Crespo, Pedro			
Lecturers				
E-mail				
Web	http://aero.uvigo.es			
General description	This subject covers the technical, economic, financial, legal and management aspects about aerospace projects. English Friendly subject: International students may request from the teachers: a) materials and bibliographic references in English, b) tutoring sessions in English, c) exams and assessments in English.			

Competencies

Code		Typology
CB2	That the students know how to apply their knowledge to their work or vocation in a professional way and that they possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study	<ul style="list-style-type: none"> • know • Know How
CB3	That the students have the capability to gather and interpret relevant data (usually within their area of study) to issue judgments that include a reflection on relevant social, scientific or ethical issues	<ul style="list-style-type: none"> • know • Know How
CB4	That the students can transmit information, ideas, problems and solutions to a specialized and non-specialized audience	<ul style="list-style-type: none"> • know • Know How
CB5	That the students develop those learning capabilities necessary to undertake further studies with a high degree of autonomy.	<ul style="list-style-type: none"> • know • Know How
CG1	Capability for design, development and management in the field of aeronautical engineering (in according with what is established in section 5 of order CIN / 308/2009), aerospace vehicles, aerospace propulsion systems, aerospace materials, airport infrastructures, air navigation infrastructures and space management, air traffic and transport management systems.	<ul style="list-style-type: none"> • know • Know How
CG2	Planning, documentation, project management, calculation and manufacturing in the field of aeronautical engineering (in accordance with what is established in section 5 of order CIN / 308/2009), aerospace vehicles, propulsion systems, aerospace materials, airport infrastructures, air navigation infrastructures and space management, air traffic and transport management systems.	<ul style="list-style-type: none"> • know • Know How
CG4	Verification and certification in the field of aeronautical engineering that aim, in accordance with the knowledge acquired (in accordance with what is established in section 5 of order CIN / 308/2009), aerospace vehicles, aerospace propulsion systems, aerospace materials, airport infrastructures, air navigation infrastructures and space management, air traffic and transport management systems.	<ul style="list-style-type: none"> • know • Know How
CG5	Capability to carry out projection activities, technical management, expert training, drafting reports, opinions, and technical advice in tasks related to aeronautical technical engineering, exercise of functions with real aerospace character.	<ul style="list-style-type: none"> • know • Know How
CG7	Capability to analyze and assess the social and environmental impact of technical solutions.	<ul style="list-style-type: none"> • know • Know How
CG8	Knowledge, understanding and capability to apply necessary legislation in the profession as aeronautical technical engineer.	<ul style="list-style-type: none"> • know • Know How
CE19	Applied knowledge of: science and technology of materials; mechanics and thermodynamics; fluid mechanics; aerodynamics and flight mechanics; navigation and air traffic systems; aerospace technology; theory of structures; airborne transportation; economy and production; projects; environmental impact.	<ul style="list-style-type: none"> • know • Know How

CT2 Leadership, initiative and entrepreneurship	• know • Know How
CT3 Capability of oral and written communication in native language	• know • Know How
CT4 Capability of autonomous learning and information management	• know • Know How
CT5 Capability to solve problems and draw decisions	• know • Know How
CT6 Capabiliity for interpersonal communication	• know • Know How
CT8 Capabiliity for critical and self-critical reasoning	• know • Know How
CT9 Capability to work in interdisciplinary teams	• know • Know How
CT10 Capability to negotiate and deal with and act in situations of conflict	• know • Know How
CT11 Show motivation for quality with sensitivity towards subjects within the scope of the studies	• Know be
CT12 Ethical and democratic commitment	• Know be
CT13 Sustainability and environmental commitment. Equitable, responsible and efficient use of resources	• Know be

Learning outcomes

Learning outcomes	Competences
- Knowledge, understanding, analysis and synthesis of the economic management of a company and project management.	CB2 CB3 CB4 CB5 CG1 CG2 CG4 CG5 CE19 CT2 CT3 CT4 CT5 CT6 CT8 CT9 CT10 CT11 CT12
- Knowledge of the determining factors of the environmental impact of the aeronautical sector.	CB2 CB3 CB4 CB5 CG1 CG2 CG4 CG5 CG7 CG8 CE19 CT3 CT4 CT5 CT6 CT8 CT11 CT12 CT13

Contents

Topic
Unit 1. Business management: management role. Management of human resources and knowledge.
Unit 2. Quality Management. Marketing Management

Unit 3. Economic-financial management of the company.

Unit 4. Engineering projects classification. Planning, evaluation and project control

Unit 5. Management of the scope, time, quality, human resources and communications of a project. Cost and risk

Unit 6. Project key point indicators

Unit 7. Environmental impact of airports, airlines and aeronautical facilities. Legal restrictions

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	32	63	95
Mentored work	9	15	24
Laboratory practical	9	18	27
Essay questions exam	2	0	2
Presentation	0.5	1.5	2

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Presentation by the teacher of the contents on the subject under study, theoretical and / or guidelines for a job, exercise or project to be developed by the student.
Mentored work	The student, individually or in groups, prepares a paper on the subject of matter or prepare seminars, research, memoirs, essays, summaries of readings, lectures, etc.. Generally it is an autonomous activity of the student that includes finding and collecting information, reading and literature management, writing ...
Laboratory practical	Activities application of knowledge to specific situations and basic skills acquisition and related procedural matter under study. They are developed in specific spaces with specialized equipment (Laboratories, computer rooms, etc ...)

Personalized assistance

Methodologies	Description
Lecturing	In the field of tutorial action, academic tutoring actions are distinguished, as well as personalized tutoring. In the first case, the students will have at their disposal hours of tutorials in which they can consult any doubt related to the contents, organization and planning of the subject, with the development of the project, etc. The tutorials can be individualized, but group tutoring will be encouraged to solve problems related to the activities to be carried out in groups, or simply to inform the teacher of the evolution of the collaborative work. In the personalized tutorials, each student, individually, can discuss with the teacher any problem that is preventing him from properly monitoring the subject, in order to find some types of solution between them. By combining both types of tutorial action, it is intended to compensate the different learning rhythms through attention to diversity.
Mentored work	In the field of tutorial action, academic tutoring actions are distinguished, as well as personalized tutoring. In the first case, the students will have at their disposal hours of tutorials in which they can consult any doubt related to the contents, organization and planning of the subject, with the development of the project, etc. The tutorials can be individualized, but group tutoring will be encouraged to solve problems related to the activities to be carried out in groups, or simply to inform the teacher of the evolution of the collaborative work. In the personalized tutorials, each student, individually, can discuss with the teacher any problem that is preventing him from properly monitoring the subject, in order to find some types of solution between them. By combining both types of tutorial action, it is intended to compensate the different learning rhythms through attention to diversity.

Assessment

Description	Qualification	Evaluated Competences
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Laboratory practical	Laboratory practice memory	25	CB2 CB3 CB5 CG1 CG2 CG4 CG5 CG7 CG8 CE19 CT3 CT4 CT5 CT8 CT11 CT13
Essay questions exam	Performing partial tests and a final continuous assessment exam	50	CB2 CB3 CB5 CG1 CG2 CG4 CG5 CG7 CG8 CE19 CT3 CT4 CT5 CT11 CT13

Presentation	Presentation in class of the group work developed.	25	CB2
			CB3
			CB4
			CB5
			CG1
			CG2
			CG4
			CG5
			CG7
			CG8
			CE19
			CT2
			CT3
			CT4
			CT5
			CT6
			CT8
			CT9
			CT10
			CT11
			CT12
			CT13

Other comments on the Evaluation

The minimum grade to be reached in the final continuous assessment exam will be 4.0 in order to pass the subject.

The dates of the final exams are published on the website of the EEAE in the web page <http://aero.uvigo.es/gl/docencia/exames>

In the case of not reaching said grade, the final grade will be the result of the minimum of the average score of EC and 4.0. Extraordinary call Students who have not passed the subject in the ordinary call will perform an extraordinary exam that will have the same format and the same requirements as the ordinary exam.

In the extraordinary evaluation, an examination in three parts will be carried out that will suppose the complete score of the evaluation: short answer, long answer (development), and problems.

As a student of the University of Vigo, the Statute for University Students, approved by Royal Decree 1791/2010 of December 30, establishes in its article 12, point 2d, that the university student has the duty to "abstain from the use or cooperation in fraudulent procedures in the evaluation tests, in the works that are carried out or in official documents of the university ". Therefore, it is expected that the student has an adequate ethical behavior. If unethical behavior is detected during the course (copying, plagiarism, use of unauthorized electronic devices or others), the student will be penalized with a grade of "0.0" in the written or deliverable test where said fraud was detected.

Sources of information

Basic Bibliography

Project Management Institute, Guía de los Fundamentos Para la Dirección de Proyectos (guía del PMBOK), 6, Project Management Institute, 2017,

Cindy Lewis, Carl Chatfield, Timothy Johnson, Microsoft Project 2019 Step by Step, Microsoft Press, 2019,

Philip Kotler, Fundamentos De Marketing, 13, ADDISON-WESLEY, 2017,

Montserrat Cabrerizo, Gestión Económica y Financiera de la Empresa, 2, Marcombo Formación, 2017,

Complementary Bibliography

Recommendations