



IDENTIFYING DATA

Project direction and management

Subject	Project direction and management			
Code	O07G410V01701			
Study programme	Grado en Ingeniería Aeroespacial			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	4th	1st
Teaching language	Spanish			
Department				
Coordinator	Rey González, Guillermo David			
Lecturers	Rey González, Guillermo David			
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General description	<p>This subject covers the technical, economic, financial, legal and management aspects about aerospace projects.</p> <p>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.</p>			

Competencies

Code	
A2	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
A3	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
A4	That the students can transmit information, ideas, problems and solutions to a specialized and non-specialized audience
A5	That the students develop those learning capabilities necessary to undertake further studies with a high degree of autonomy.
B1	Capability for design, development and management in the field of aeronautical engineering (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.
B2	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.
B4	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.
B5	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.
B7	Capability to analyze and assess the social and environmental impact of technical solutions.
B8	Knowledge, understanding and capability to apply necessary legislation in the profession as aeronautical technical engineer.
C19	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.
D3	Capability of oral and written communication in native language
D4	Capability of autonomous learning and information management

D5	Capability to solve problems and draw decisions
D6	Capability for interpersonal communication
D8	Capability for critical and self-critical reasoning
D11	Show motivation for quality with sensitivity towards subjects within the scope of the studies
D12	Ethical and democratic commitment
D13	Sustainability and environmental commitment. Equitable, responsible and efficient use of resources

Learning outcomes

Expected results from this subject	Training and Learning Results			
- Knowledge of the determining factors of the environmental impact of the aeronautical sector.	A2	B1	C19	D3
	A3	B2		D4
	A4	B4		D5
	A5	B5		D6
		B7		D8
		B8		D11
				D12
				D13

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 clasification. 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
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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	Training	and Learning	Results
Laboratory practical	Laboratory practice memory	25	A2 A3 A5	B1 B2 B4 B5 B7 B8	C19 D3 D4 D5 D8 D11 D13
Essay questions exam	Performing partial tests and a final continuous assessment exam	50	A2 A3 A5	B1 B2 B4 B5 B7 B8	C19 D3 D4 D5 D11 D13
Presentation	Presentation in class of the group work developed.	25	A2 A3 A4 A5	B1 B2 B4 B5 B7 B8	C19 D3 D4 D5 D6 D8 D11 D12 D13

Other comments on the Evaluation

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 order to pass evaluation in the first call, it will be necessary:

- A 4.0 minimum grade in the continuous assesment final exam.
- Complete delivery of every practice report and/or assignment obtaining, at least, a 3 mark in every evaluable item

In the case both conditions are not met, final grade will be the result of the minimum average grade at Continuous Assesment, and 4

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

Contingency plan

Description

In the extraordinary event that face-to-face teaching is not feasible, every teaching and evaluation activities will be completely performed remotely, using the mechanisms and tools that University of Vigo will provide.

As far as possible, synchronous online teaching will be used, minimizing asynchronous learning.

Laboratory or classroom activities that might not be adapted will be replaced by problem classes, master classes and/or virtual laboratories