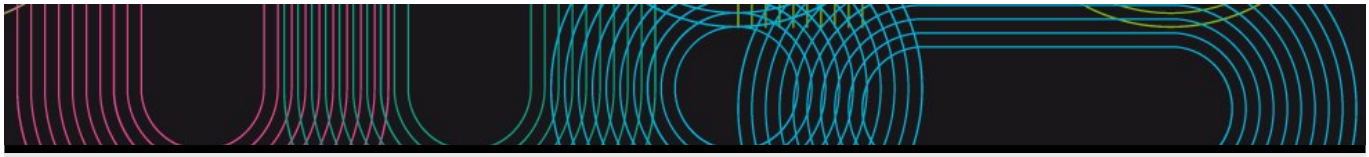

IDENTIFYING DATA				
Entrepreneurship, project management and intellectual property				
Subject	Entrepreneurship, project management and intellectual property			
Code	V04M196V01104			
Study programme	Máster Universitario en Fabricación Aditiva			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	#EnglishFriendly Spanish			
Department				
Coordinator	Goicoechea Castaño, María Iciar			
Lecturers	Goicoechea Castaño, María Iciar			
E-mail	igoicoechea@uvigo.es			
Web				
General description	English Friendly subject: International students may request from the teachers: a) resources and bibliographic references in English, b) tutoring sessions in English, c) exams and assessments in English			

Training and Learning Results	
Code	
C6	To develop creativity and a spirit of innovation in order to respond to the challenges that arise in the processes and organization of work and personal life.
D1	Prepare technical and administrative documentation in accordance with current legislation and customer requirements. Comply with current legislation governing additive manufacturing regulations.
D2	Evaluate the economic costs and business opportunities derived from the application of additive manufacturing in both production and R&D processes.

Expected results from this subject	Training and Learning Results
RA17: Develop the creativity and the spirit of innovation to answer to the challenges that present in the processes and in the organisation of the work and of the personal life	C6
RA22: Elaborate technical and administrative documentation in accordance with the valid legislation and with the requests of the customer. Fulfil with the valid legislation that regulates the rule of the additive manufacture	D1
RA23:Evaluate the economic cost and the opportunities of business derived of the application of the additive manufacture so much in the processes of production as in the ones of R&D	D2

Contents	
Topic	
1. Entrepreneurship	1.1 Definition 1.2 Tools for the entrepreneurship: Design thinking and lean start up
2. Project management	2.1 Predictive Methodologies and agile 2.2 Cycle life of the project and cycle of life of the product
3. Phase of Beginning: utilisation of agile methodologies for managing projects	3.1 Business Model Canvas 3.2 Project Model Canvas 3.3 Project charter

4. Phase Planning of the Project	4.1 Work breakdown structure (WBS) 4.2 Planning of the project with computer tool. 4.2.1 Method of the critical path 4.2.2 Allocation of resource. 4.2.3 Allocation costs 4-2-4 Creation of Baseline of the Project
5. Phase Executing and controlling of the Project	5.1 Tracking Gantt. Status date 5.2 Update of projects 5.3 Methodology of earned value
6. Phase of ending	6.1 Final deliverable 6.2 Lessons learned
7. Industrial/copyright	7.1 Standars
8. Digital inventories	8.1 Foundations of the digital inventories

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	10	23	33
Practices through ICT	8	15	23
Seminars	6	3	9
Mentored work	1	9	10

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

Methodologies

	Description
Lecturing	Exhibition by part of the teachers of the contents on the matter object of study, theoretical bases and/or guidelines of a work, exercise or project to develop by the student. The theoretical contents will go presenting by the teachers, complemented with the active intervention of the students, in total coordination with in the development of the practical activities programmed.
Practices through ICT	Practical classes in which the students works the computer classrooms with software of planning
Seminars	Conferences given by companies devoted to the additive manufacture
Mentored work	Work to make during the course

Personalized assistance

Methodologies	Description
Practices through ICT	Personalised attention to the students in the computer practices
Mentored work	Follow-up of the work along the course through tutorial classes

Assessment

	Description	Qualification	Training and Learning Results
Lecturing	Exhibition of theoretical appearances by part of the teacher. The students will have an examination to value the theoretical contents learnt. Results of learning: Elaborate technical and administrative documentation in accordance with the valid legislation and with the requests of the customer. Fulfil with the valid legislation that regulates the rule of the additive manufacture.	40	D1
Practices through ICT	They will make practices of management of projects with software of planning. The students has to make the reports of practices (deliverables) of each one of them, and deliver them in to the platform Moovi in the distinguished dates Resulted learning: Evaluate the economic costs and the opportunities of business derived of the application of the additive manufacture so much in the processes of production as in the ones of R&D.	30	D2
Mentored work	Work to make by the students along the course Resulted learning: Develop the creativity and the spirit of innovation to answer to the challenges that present in the processes and in the organisation of the work and of the personal life	30	C6

Other comments on the Evaluation

All the students can access to the continuous assesment of the matter along the course. Once happened a month from the

start of the course, the students can communicate by writing to the teacher his renunciation to the continuous assesment and opt to the global assesment The qualification of the continuous assesment is as the following:

- Reports of practices (deliverables) carried out throughout the course will have a value of 30% in the final grade.
- The written test has a value of 40% in the final grade.
- the menotored work will have a value of 30% in the final grade.

To be able to pass the continuous assessment, each part must be passed with a minimum of 3.5 points.

Students who opt for global evaluation will take the final exam on the corresponding date set by the school's management. The exam will cover both theoretical class content and practical content.

The official exam calendar will be published on the school's official website. http://eei.uvigo.es/

Ethical commitment: Students are expected to present appropriate ethical behavior. In case of detecting unethical behavior (copying, plagiarism, use of unauthorized electronic devices, and others), it is considered that the student does not meet the necessary requirements to pass the subject. In this case, the global grade for the current academic year will be a fail (0.0).

Sources of information

Basic Bibliography

Manuel Fernandez Iglesias y otros, **Design Thinking. Guía de iniciación**, 978-8481588460, 1, Servicio publicaciones Universidad de Vigo, 2020

Project management Institute (PMI), **A guide to the Project Management Body of Knowlegde (PMBok Guide)**, 978-1628256796, 1, PMI, 2021

Lewis, Cindy, **Step by Step. MICROSOFT PROJECT 2019**, 978-1-5093-0742-5, 1, pearson education, 2019

Complementary Bibliography

Buchtik, Liliana, **Secrets to Mastering the WBS in real world projects**, 978-9974987913, 1, PMI, 2013

Ramon Rubio, **INTRODUCCIÓN A LA FABRICACIÓN ADITIVA EN LA INDUSTRIA**, 978-8417701970, 1, Fundación Confemetal, 2021

Eric Rie, **El método Lean Startup : cómo crear empresas de éxito utilizando la innovación continua**, 978-8423409495, 11, Barcelona : Deusto, 2017

Alonso Alvarez garcia, **Métodos ágiles y scrum**, 978-8441531048, 1, Anaya multimedia, 2012

Recommendations