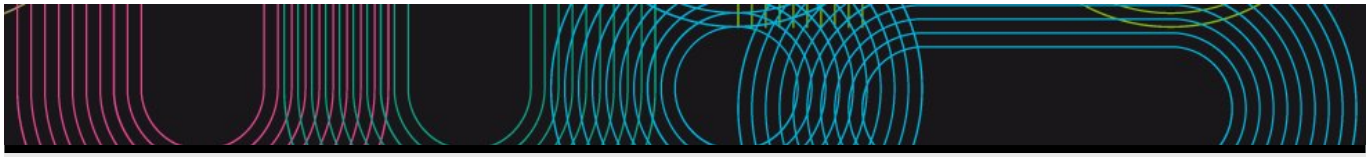
Universidade Vigo

Subject Guide 2019 / 2020



IDENTIFYING DATA				
Knowledge and technological innovation management				
Subject	Knowledge and technological innovation management			
Code	V03G020V01925			
Study programme	(*)Grao en Administración e Dirección de Empresas			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	4th	1st
Teaching language	Galician English			
Department				
Coordinator	Vázquez Vicente, Xosé Henrique			
Lecturers	Silva França Santos, Alexandra Maria Vázquez Vicente, Xosé Henrique			
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General description	The course highlights the challenges posed by the knowledge economy, justifies the need to innovate in this context, and deepens into the tools available to sistematize R&D and innovation within organizations. Although we will mainly focus in private firms, the course will show that the management of knowledge and innovation finds a wide field of application beyond the business arena. The rationale of the course will thus play an important role in the dynamization of change in any type of organization; from an NGO or a trade union, for instance, to the very same public administration.			

Competencies	
Code	
A2	Students need to be able to apply the knowledge acquired to their work or vocation in a professional manner, and should have the skills normally demonstrated through the ability to develop and defends points of view and to solve problems related to their field of study.
A3	Students should be able to collect and interpret relevant data (usually within their field of study) in order to make judgements that include a reflection on the relevant social, scientific or ethical issues.
A4	Students should be able to transmit information, ideas, problems and solutions to both specialised and non-specialised audiences.
B1	Ability to analyse and synthesise
B2	Critical and self-critical thinking
C1	Acquire and understand knowledge regarding: the relationships between the different subsystems that make up the business system
C3	Acquire and understand knowledge regarding: Internal aspects, functions and processes of organisations including their nature, structure, direction, operation and management
D2	Capacity for leadership, including empathy with others

Learning outcomes				
Expected results from this subject	Training and Learning Results			
Understand the Knowledge Economy and the role that the management of the innovation plays.	A3	B1 B2	C1 C3	
Capacity to analize the main strengths that move the ecosystem of innovation	A2	B1 B2	C1 C3	
Capacity to analyse the internal processes of the company that influence the potential of innovation	A4	B2	C1 C3	D2
Creative capacity to distinguish new projects of innovation, evaluate them with rigour, and implement them.	A2 A3	B1	C1	D2

Contents	
Topic	
1.- Why innovation management? From an industrial to a knowledge economy.	The world economy. The rationale of growth and convergence. The new technological system: microelectronics and biotechnology. Knowledge economy: more than bytes. The firm in a new context: the innovation plan.
2.- Technological change and National Systems of Innovation.	Technology and innovation: definitions and typologies. The configuration of National Systems of Innovation. The system Science-Technology-Industry: the role of universities.
3.- The elaboration of a diagnosis: from environmental insights to new ideas for the market.	Competitive intelligence. Technological prospection. Technological audit.
4.- The importance of designing a strategy to develop a project portfolio.	Strategic coherence. Innovation strategies. Technological strategies. Interactions. Indicators. Project portfolio. Technology protection.
5.- How to implement a project? Organizational structure, control and leadership.	Organizational structures to stimulate change and innovation. Coordination mechanisms to innovate. The technological perspective of control systems and incentives. Participation systems for the workforce. The flow of change: training, comunication and leadership.

Planning	Class hours	Hours outside the classroom	Total hours
Introductory activities	1	0	1
Lecturing	19	30	49
Problem solving	10	10	20
Debate	10	10	20
Mentored work	10	20	30
Objective questions exam	2	28	30
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	Description
Introductory activities	Presentation of contents and goals. Teaching methodology and evaluation systems.
Lecturing	Presentation of the theoretical basis and guidance on program contents. Students should read previously the recommended material for each session.
Problem solving	Each of these sessions consists of a simulation to put the knowledge developed in master sessions into practice.
Debate	Teachers will debate with students about questions with answers that will require to associate arguments from the current and previous lectures.
Mentored work	These sessions will also have the teachers' support, but students will work cooperatively and autonomously in small groups in order to carry out an analysis of a particular innovation topic, develop simulations of tools and techniques that were studied in the theoretical lectures, and ellaborate an Innovation Plan for any business or industry. In order to carry out these tasks, it is important to absorve the knowledge discussed in master sessions and develop the target skills during problem solving exercises.

Personalized assistance	
Methodologies	**Description**
Problem solving	Several problems and exercises will be adressed in class.
Mentored work	The innovation plan will be supervised by the teacher.

Assessment	Description	Qualification	Training and Learning Results
Debate	The teachers will question the students with issues that will require answers relating to different topics.	10	A2 B2 A3 A4

Mentored work	There are two types of tutored works: (1) simulations guided by the teacher; and (2) an Innovation Plan. The Innovation Plan follows a model that is available in FAITIC. The assesment of this Plan will be based on the following criteria: FORMAL PRESENTATION The table of contents will be broken down and will indicate the page on which each element is. All the figures included in the text, tables, graphs and figures must specify the source. Literal quotations must be enclosed in quotation marks and accompanied by the source from which they are extracted. If they are not literal, only the source will be cited. The detection of a plagiarism will be punished with the greater of the sanctions according to the regulations of the University of Vigo. The sources (documentary, oral, internet...) must be collected in a final section. LEVEL AND QUALITY OF THEMATIC DEPTH ANALYTICAL SKILL Structuring and critical analysis of information Originality and rigor of the arguments FINAL PRESENTATION TO SEEK FINANCING OF ONE OF THE PROJECTS DEVELOPED IN THE INNOVATION PLAN Adjustment to a 10 minutes presentation Fluency of the presentation Conviction capacity	40	A2 A3 A4	B1 B2	C1 C3	D2
Objective questions exam	The exam will consist of 20 test questions with 4 possible answers each. One correct answer adds one point; one incorrect answer substracts 0,33. Alternatively, this test-type exam may be substituted by short questions that students must deal with extensively.	50	A3	B1 B2	C1 C3	

Other comments on the Evaluation

Students can choose to be evaluated through a continuous assessment procedure, or just with a final exam that will represent 100% of the students' grade.

About the continuous assessment procedure:

(1) The weighting of the different methods is as follows: the exam will have a value of 50%, and the other 50% will depend on the student's performance in both the theoretical and practical sessions. The performance in the theoretical sessions will depend on the proactive attitude participating in the debates under way (10%), while in the practical sessions it will depend on the effort and results showed in the tutored works (40%).

(2) The score for the participation and the fulfillment of all the defined tasks is maintained in the academic course and will not be saved for successive years.

About the exam:

(1) It can be a test or made of short questions.

(2) In the slides available in FAITIC you can find an extended index of the course that the students will have to complement on their own during face-to-face teaching and/or with the recommended bibliography.

(3) In the □final bachelor call for examination□ (a special call for students with just a few courses left to graduate), the exam will represent 100% of the grade.

(4) The exam dates can be consulted on the website: http://fccee.uvigo.es

Sources of information

Basic Bibliography

Fernández Sánchez, Esteban, **Estrategia de innovación**, Thomson,

Antonio Hidalgo, Gonzalo León, Gonzalo LeónJulián Pavón, **La Gestión de la innovación y la tecnología en las organizaciones**, Pirámide, 2013

Enric Barba, José Ramón Magarzo, **Cómo gestionar la innovación**, Altran, 2018

Complementary Bibliography

Tidd, Joe e Bessant, John, **Managing Innovation: Integrating technological, market and organizational change**, Wiley, 2013

Tidd, Joe e Bessant, John, **Managing Innovation: Integrating technological, market and organizational change**, Wiley,
Antonio Davila, Marc J Epstein, and Robert D. Shelton, **Making Innovation Work: How to Manage It, Measure It, and Profit from it**, Pearson Education, 2013

Recommendations

Subjects that continue the syllabus

Investment decisions/V03G020V01402
Financing decisions/V03G020V01501

Subjects that are recommended to be taken simultaneously

Commercial Research/V03G020V01701

Subjects that it is recommended to have taken before

History: Economic history/V03G020V01103
Operations management/V03G020V01302
Accounting analysis/V03G020V01601

Other comments

The master sessions address topics that must be related to other contents of the course and other courses such as statistics, market research, law or business economics.
The practical sessions demand from the students a proactive and creative attitude that can be hardly exaggerated. Lateral thinking and innovative output in the innovation plan and in the teacher's own exercises are key elements in the evaluation of these sessions.
The development of the course and its future exploitation in professional life advises a level of reading in English equivalent to that required in the entrance exams to the university.