IDENTIFYING DATA
Information Systems Needs and Technologies

Subject	Information Systems Needs and Technologies
Code	P02M163V01114
Study programme	(*)Máster Universitario en Dirección Integrada de Proxectos

Descriptors	ECTS Credits		Choose	Year	Quadmester
	5		Optional	1st	An

Teaching language	Spanish
Department	
Coordinator	Cancela Carral, José María
Lecturers	Cancela Carral, José María Núñez Ortuño, José María
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General description	This course is aimed at students who are going to work in the IT sector and/or in the field of ICT. It will enable them to analyse and identify a technological project in the business field, from all disciplinary points of view, looking at the information, data and technology systems that need to be integrated into a company and, in short, it will help them to manage and direct IT system projects. information.

Skills

Code	
A2	That the students know to apply the knowledges purchased and his capacity of resolution of problems in new surroundings or little known inside contexts wider (or multidisciplinary) related with his area of study.
B1	Capacity of analysis and synthesis.
B2	Capacity of Organisation and Planning
C4	Know initiate, schedule, direct, control and close Projects of Systems of Information in the speciality of Systems of Information
C19	Capacity for the editorial of the project as well as for his communication of form convincing, clear, concise and without ambiguities
C20	Capacity to apply the knowledges purchased to the professional field in which it develops his activity the Project Manager.
C21	Capacity to manage the obtaining of the resulted chord to the criteria of term, cost and quality, and of the customer
C22	Habits of excellence and ethical commitment in the professional exercise of the Project Manager.
D5	Value critically the knowledge, the technology and the available information to resolve the problems with which have to confront.
D8	Use the basic tools of the technologies of the information and the communications (TIC) necessary for the exercise of his profession and for the learning along his life.

Learning outcomes

Expected results from this subject	Training and Learning Results

Be able to analyze and identify a technological project from all disciplinary points of view, contemplating all aspects of information that can intervene in the system.	A2 B1 B2 C4 C19 C20 C21 C22 D5 D8
Be able to identify the data and technologies that need to be integrated into an information system so that it provides interfaces for all aspects of the required information	A2 B1 B2 C4 C19 C20 C21 C22 D5 D8

Contents

Topic	
Topic 1. The business world and its information	Objectives of a company Areas of activity of a company Organizational Structures and Designs Information systems in the company
Topic 2. Information Systems	Information Systems (IS) Definition Components of an SI Classification of IS Principles in the development of an IS The life cycle of an SI
Topic 3. Strategic planning of IS	Concepts IS/IT strategic planning process Phase 1. Understanding the business strategy Phase 2. Analysis of the current IS/IT Phase 3. Formulation of the strategy Phase 4. Implementation plan
Topic 4. Architecture, communications and system development	Introduction Modularity: concepts Software architecture Architectural principles Databases Communications and networks
Topic 5. Company management applications	Introduction Enterprise Resource Planning: ERP Customer relationship management: CRM Supply Chain Management: SCM Corporate Information Integration: EII
Topic 6. Analysis applications	Introduction Business Intelligence (BI) Business Process Management: BPM Decision-making support systems: DSS
Topic 7. Internet trends and mobility	Web and social networks (Web2.0) Mobile Advances
Topic 8. Trends in Cloud Services	Cloud Computing Big Data
Topic 9. Trends in digital marketing and e-commerce	E-Business Digital Marketing

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	30	0	30
Problem solving	27	0	27
Case studies	24	0	24
Mentored work	12	0	12

Problem and/or exercise solving	30	0	30
Problem and/or exercise solving	2	0	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 of study, theoretical bases and/or guidelines of the work, exercise or project to be developed by the student.
Problem solving	Exercises will be proposed to be solved individually by the student.
Case studies	Problem-situations are presented, which will be analyzed and studied by the students in order to propose solutions to the case.
Mentored work	Individual or group work tutored by the teacher.

Personalized assistance

Tests	Description
Problem and/or exercise solving	The student will receive individualized attention during the tutorial schedule established for this purpose during the current academic year. To consult the tutorial schedule and location, please visit the master's degree course website: www.mdip.es

Assessment

	Description	Qualification	Training and Learning Results			
Case studies	Study of cases proposed by the teacher with the delivery of the proposed answers or a possible solution to the case by the student	30	A2	B1 B2	C4 C19 C21	D5 D8
Mentored work	Elaboration, in a guided way, of a practical case proposed by the student	20	A2	B1 B2	C4 C19 C20 C21 C22	D5 D8
Problem and/or exercise solving	Short questions about the subject matter	50		B1 B2	C20 C21	D5

Other comments on the Evaluation

Sources of information
Basic Bibliography

Complementary Bibliography

Steven Alter, **Information Systems**, 4ª Edición, Prentice Hall Editions, 2002

Anita Cassidy, **A Practical Guide to Information Systems Strategic Planning**, 978-0-8493-5073-3, 2ª Edición, Auerbach Publications, 2005

Effy Oz, **Administración de los sistemas de información**, 978-607-481-434-7, 5ª Edición, Cengage Learning Editores, S.A., 2008

Vicenç Fernández Alarcón, **Desarrollo de sistemas de información: Una metodología basada en el modelado**, 84-8301-862-4, 1ª Edición, Edicions de la Universitat Politècnica de Cataluny, 2006

James D. McKeen; Heather A. Smith, **IT Strategy: Issues and Practices**, 978-1-292-08026-0, 3ª Edición, Pearson Education Limited, 2015

Tomás Guillén Gorbe, **Las TIC en la estrategia empresarial**, V-3094-2007, 1ª Edición, Anetcom, 2007

James A. O□Brien; George M. Marakas, **Sistemas de información gerencial**, 970-10-5630-2, 7ª Edición, McGRAW-HILL/INTERAMERICANA EDITORES, S.A. DE C.V., 2006

Kenneth C. Laudon; Jane P. Laudon, **Sistemas de información gerencial**, 978-607-32-3696-6, 14ª Edición, PEARSON EDUCACIÓN, México,, 2016

Sandra Sieber; Josep Valor; Valentín Porta, **Los Sistemas De Información En La Empresa Actual**, 84-481-4006-0, 1ª Edición, McGraw-Hill, 2006

Recommendations
Subjects that continue the syllabus

Management of an ICT Projects/P02M163V01115

Subjects that it is recommended to have taken before

Project Monitoring, Control and Closure/P02M163V01113

Contingency plan

Description

As a consequence of the COVID-19 and in accordance with the extraordinary and urgent measures for the development of the teaching organization in the course 2020/2021 in case of health crisis, approved by the Governing Council of June 12, 2020 and the Rectory Resolution of June 17, 2020 for its implementation, an instruction from the VOAP for the elaboration of the teaching guides was elaborated.

Based on this, the teaching of this subject in the event of a resurgence of the COVID-19 will be by means of virtual attendance (Classroom 12; https://campusremotouvigo.gal/public/2025273042), in which neither the teacher nor the student attend the classroom. Classes and evaluation will be carried out through Remote Campus and Moodle platform. If necessary, this modality will be activated by means of RR.