



IDENTIFYING DATA

Information Systems Needs and Technologies

Subject	Information Systems Needs and Technologies			
Code	P02M163V01114			
Study programme	Máster Universitario en Dirección Integrada de Proyectos			
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 subject, oriented to students that go to make his activity in the computer sector and/or in the field of the TIC, will qualify them to analyse and identify a technological project in the business field, from all the points of seen disciplined, contemplating the systems of information, data and technologies that need integrate in a company and, in definite, will help them to manage and direct projects of systems of information.			

Training and Learning Results

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.

Expected results from this subject

Expected results from this subject	Training and Learning Results
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Be able to identify the data and technologies that need integrate in a system of information so that it offer A2 interfaces for all the appearances of information required.

B1
B2
C4
C19
C20
C21
C22
D5
D8

Contents

Topic

Subject 1. The business world and his information	Aims of a company Areas of activity of a company Structure and organisational designs Information systems in the company
Subject 2. Information Systems	Information Systems (IS) definition Components of an IS Classification of IS Principles in the development of an IS The cycle of life of an IS
Subject 3. Strategic planning of IS	Concepts Process of strategic planning of IS Phase 1. Understanding of the strategy of business Phase 2. Analysis of the actual IS Phase 3. Formulation of the strategy Phase 4. Plan of implantation
Subject 4. Architecture, communications and development of systems	Introduction Modularity: concepts Software architecture Architectural principles Databases Communications and networks
Subject 5. Applications of management of the company	Introduction Enterprise Resource Planning (ERP) Customers Relations Management (CRM) Supply Chain Management (SCM)
Subject 6. Applications of analysis	Introduction Business Intelligence: BI Architecture of a BI Business Process Management: BPM Systems for taking decisions: DSS
Subject 7. Applications for the management of incidences	SLA Politics Architecture of ticketing tools Ticketing tools
Subject 8. Tendencies of internet and mobility	Web and social networks (Web2.0) Web 3.0 Mobile Advances: NFC, IoT, BigData, BYOD, RPA, etc.
Subject 9. Tendencies in Cloud services	Big Data Cloud computing Virtualization
Subject 10. Tendencies in the digital marketing and e-commerce	E-Business Digital Marketing Social Gaming 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	Exhibition by part of the professor of the contents on the matter of study, theoretical bases and/or guidelines of the work, exercise or project to develop by the student.
Problem solving	They will propose exercises that will have to resolve of individual form by part of the student.
Case studies	They present situations-problem that will be analysed and studied by the students to propose solutions to the case.
Mentored work	Individual or grouped works mentored by the professor.

Personalized assistance	
Tests	Description
Problem and/or exercise solving	The student will receive individualized attention in the tutoring schedule established for this purpose during the current academic year. To consult the tutoring schedule and the place where the tutoring will take place, please consult the Master's website: www.mdip.es

Assessment		Qualification Training and Learning Results				
	Description					
Case studies	Face-to-face and on-line modality: study of cases proposed by the professor with the delivery of the answers posed or a possible solution of said case by part of the student	40	A2	B1 B2	C4 C19 C21	D5 D8
Mentored work	Face-to-face and on-line modality: preparation, of form guided, of a practical case proposed by the student	20	A2	B1 B2	C4 C19 C20 C21 C22	D5 D8
Problem and/or exercise solving	Face-to-face and on-line modality: short questions on the contents of the matter	40		B1 B2	C20 C21	D5

Other comments on the Evaluation

To be able to surpass the subject, the mentored work will be of compulsory realisation by part of all the students.

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**, 2ª Edición, Auerbach Publications, 2005

Effy Oz, **Administración de los sistemas de información**, 5ª Edición, Cengage Learning Editores, S.A., 2008

Vicenç Fernández Alarcón, **Desarrollo de sistemas de información: Una metodología basada en el modelado**, 1ª Edición, Edicions de la Universitat Politècnica de Catalunya, 2006

James D. McKeen; Heather A. Smith, **IT Strategy: Issues and Practices**, 3ª Edición, Pearson Education Limited, 2015

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

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

Kenneth C. Laudon; Jane P. Laudon, **Sistemas de información gerencial**, 14ª Edición, PEARSON EDUCACIÓN, México,, 2016

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

Recommendations

Subjects that continue the syllabus

Standards for ICT Project Management/P02M163V01116

Management of an ICT Projects/P02M163V01115