UNIVERSIDAD DE CASTILLA - LA MANCHA
GUÍA DOCENTE

1. General information

Course: MANAGEMENT OF INFORMATION TECHNOLOGIES

Type: CORE COURSE

Degree: 2361 - MÁSTER UNIVERSITARIO EN INGENIERÍA INFORMÁTICA (AB) (2020)

Center: 604 - SCHOOL OF COMPUTER SCIENCE AND ENGINEERING (AB)

Year: 1

Main language: Spanish

Use of additional languages:

Web site:

Code: 311045

ECTS credits: 6

Academic year: 2023-24

Group(s): 10 11

Duration: First semester

Second language: English

English Friendly: Y

Bilingual: N

Lecturer: **VIRGINIA BARBA SANCHEZ** - Group(s): **10 11**				
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Lecturer: **ÁNGEL MESEGUER MARTÍNEZ** - Group(s): **10 11**				
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2. Pre-Requisites

There are no prerequisites.

3. Justification in the curriculum, relation to other subjects and to the profession

This subject belongs to the subject of 'Direction and Management' and aims to provide the student with the necessary training to face: i) computer managerial responsibilities related to project management, IT departments, and even IT companies, (ii) the managerial skills required to assume these responsibilities efficiently and effectively.

Firstly, it will afford aspects related to "Information Technologies Management and Governance", an essential task in the professional development of computer engineers, linked to one of the main challenges that many of them will face throughout their working lives. This task encompasses the highest level of responsibilities in the professional activity of computer engineers, associated with to the role of Chief Information Officer (CIO). Thus, this t part addresses managerial aspects at the project, IT department and company levels. The use of good practices and techniques for taking IT decisions and for IT management will be studied; methods and techniques to facilitate their alignment with the objectives and strategies of the organization; and how to organize IT departments or IT companies.

With respect to the second part, it works on management skills that every project leader or manager must have: motivation, leadership, management of multidisciplinary work teams. It complements the student's training, for example, as a future CIO, project manager, etc. so that she can act as a liaison between the technical and the management communities of an organization. All this in the context of the Resolution of 8 June 2009 of the General Secretariat of Universities (BOE 04-08-2009), which includes the studies of Computer Science.

4. Degree competences achieved in this course

Course competences

Code	Description
CB07	Apply the achieved knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
CB09	Know how to communicate the conclusions and their supported knowledge and ultimate reasons to specialized and non-specialized audiences in a clear and unambiguous way
CB10	Have the learning skills which allow to continue studying in a self-directed or autonomous way
CE01	Ability to integrate technologies, applications, services and systems within the field of computer engineering in a general manner, in wide and multidisciplinary situations.
CE02	Ability for strategic planning, making, supervision, coordination and economic and technical management in the fields of computer engineering which have to do with: systems, applications, services, networks, infrastructures or computer installations and facilities for software development; adequately following quality and environmental criteria in multidisciplinary contexts.
INS01	Analysis, synthesis and assessment skills.
INS02	Organising and planning skills.
INS03	Ability to manage information and data.
PER04	Interpersonal relationship skills.
SIS02	Ethical commitments.
SIS05	Creativity.
SIS06	Leadership skills.
SIS09	Care for quality.
UCLM03	Accurate speaking and writing skills.
UCLM04	Professional ethics.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Manage and plan IT departments in companies

Have basic knowledge of the strategic management process in IT companies

Execute the strategic planning of information technologies and systems and ensure that it complies with the general organisation strategy

Work in multidisciplinary areas with people from diverse professional backgrounds

Possess team management skills for the development of projects

View IT projects and systems in a broader context of human organisations

Apply systems of integration, motivation and development of people

Oversee and coordinate the technical and financial aspects of systems, applications, services, networks, infrastructure and computing facilities

Familiarise oneself with the basics of IT governance

6. Units / Contents

Unit 1: Strategic planning of information systems and technologies (IT)

Unit 2: IT Governance

Unit 3: IT Department Management

Unit 4: Managing People in IT

Unit 5: Management of multidisciplinary and multicultural teams

Unit 6: Motivation & Leadership

Unit 7: Culture and organizational change

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CE01 CE02 SIS02	0.72	18	N	-	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Class Attendance (practical) [ON-SITE]	Combination of methods	CE01 CE02 INS01 INS02 INS03 PER04 SIS02 SIS05 SIS06 SIS09 UCLM03 UCLM04	1.2	30	Y	N	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Group tutoring sessions [ON-SITE]	Group tutoring sessions	CE01 CE02 INS01 INS03	0.18	4.5	N	-	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Writing of reports or projects [OFF-SITE]	Self-study	CB07 CB09 CB10 CE01 CE02 INS01 INS03 PER04 SIS02 SIS05 SIS06 SIS09 UCLM03 UCLM04	1.5	37.5	Y	N	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Study and Exam Preparation [OFF-SITE]	Self-study	CE01 CE02 INS01	2.1	52.5	N	-	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Project or Topic Presentations [ON-SITE]	Individual presentation of projects and reports	CB07 CB09 INS02 UCLM03	0.26	6.5	Y	N	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
Final test [ON-SITE]	Assessment tests	CB07 CB09 CE01 CE02 INS01 UCLM03	0.04	1	Y	N	Both students attending the presence-based and blended modality will be assessed in the same type of examination sessions.
		Total:	6	150			

Total credits of in-class work: 2.4	Total class time hours: 60
Total credits of out of class work: 3.6	Total hours of out of class work: 90

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Theoretical exam	25.00%	25.00%	Test on the basic contents of the subject.
Oral presentations assessment	20.00%	20.00%	Several of the written works will be presented orally.
Assessment of problem solving and/or case studies	20.00%	20.00%	Workshop on creativity and case study analysis.
Projects	35.00%	35.00%	Written work on various topics of the contents of the course.
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of

the competences).

Evaluation criteria for the final exam:
  Continuous assessment:
  The course is passed with a total of at least 5 points out of 10, and it is not compulsory to carry out any of the activities described above.
  Non-continuous evaluation:
  The course is passed with a total of at least 5 points out of 10, and it is not compulsory to carry out any of the activities described above.

Specifications for the resit/retake exam:
The grades obtained in the ordinary course can be saved in this case, and those activities that were suspended can be recovered. The course is passed with a total of at least 5 points out of 10.

Specifications for the second resit / retake exam:
In this case, it will be evaluated with the same evaluation systems as the ordinary and extraordinary ones, respecting the same percentages. The course is passed with a total of at least 5 points out of 10.

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	**hours**
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	4.5
Final test [PRESENCIAL][Assessment tests]	1
Unit 1 (de 7): Strategic planning of information systems and technologies (IT)	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Combination of methods]	6
Writing of reports or projects [AUTÓNOMA][Self-study]	8
Study and Exam Preparation [AUTÓNOMA][Self-study]	8
Project or Topic Presentations [PRESENCIAL][Individual presentation of projects and reports]	1
Unit 2 (de 7): IT Governance	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2
Writing of reports or projects [AUTÓNOMA][Self-study]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Unit 3 (de 7): IT Department Management	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2
Writing of reports or projects [AUTÓNOMA][Self-study]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Unit 4 (de 7): Managing People in IT	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Combination of methods]	8
Writing of reports or projects [AUTÓNOMA][Self-study]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	12
Project or Topic Presentations [PRESENCIAL][Individual presentation of projects and reports]	2
Unit 5 (de 7): Management of multidisciplinary and multicultural teams	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Combination of methods]	4
Writing of reports or projects [AUTÓNOMA][Self-study]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	8.5
Project or Topic Presentations [PRESENCIAL][Individual presentation of projects and reports]	1.5
Unit 6 (de 7): Motivation & Leadership	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Combination of methods]	6
Writing of reports or projects [AUTÓNOMA][Self-study]	3
Study and Exam Preparation [AUTÓNOMA][Self-study]	15
Project or Topic Presentations [PRESENCIAL][Individual presentation of projects and reports]	2
Unit 7 (de 7): Culture and organizational change	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Combination of methods]	2
Writing of reports or projects [AUTÓNOMA][Self-study]	.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	5
Global activity	
Activities	**hours**
Project or Topic Presentations [PRESENCIAL][Individual presentation of projects and reports]	6.5
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	4.5
Writing of reports or projects [AUTÓNOMA][Self-study]	37.5

Class Attendance (practical) [PRESENCIAL][Combination of methods]	30
Class Attendance (theory) [PRESENCIAL][Lectures]	18
Final test [PRESENCIAL][Assessment tests]	1
Study and Exam Preparation [AUTÓNOMA][Self-study]	52.5
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	City	ISBN	Year	Description
Guerras, L.A. y Navas, J.E.	La dirección estratégica de la empresa: teoría y aplicaciones http://www.guerrasynavas.com/deta5_presentacion.htm	Thompson-Civitas	Madrid	978-84-470-5334-6	2015	
Todorov, K. y Smallbone, D.	Strategic Management in Small and Medium Enterprises	IGI Global		978-14-666-5962-9	2014	
Piattini, M.G. y Hervada, F. (Coord.)	Gobierno de las Tecnologías y Sistemas de Información http://www.ra-ma.es/libros/GOBIERNO-DE-LAS-TECNOLOGIAS-Y-LOS-SISTEMAS-DE-INFORMACION/259/978-84-7897-767-3	Ra-Ma	Madrid	978-84-7897-767-3	2007	
Barba-Sánchez, V. y Atienza-Sahuquillo, C.	Las teorías motivacionales y su aplicación a la creación de empresas	EAE	Saarbrücken	978-3-8473-5208-2	2011	
Cardona, P.	Cómo desarrollar las competencias del liderazgo	Eunsa		978-84-313-2309-7	2009	
Misiego, F. y Ortega, E.	De tigres y corderos: las nuevas habilidades directivas en tiempo de cambio	Rasche		978-84-941229-2-7	2014	
Puchol, L. et al.	El libro de las habilidades directivas	Díaz de Santos		978-84-798975-6	2010	
Gómez-Grass, J.M. (Coord.)	Manual de casos prácticos para la creación de empresas en España	McGraw-Hill	Madrid		2011	
Whetten, D.A. y Cameron, K.S.	Desarrollo de habilidades directivas	Pearson Educación	México D.C.	978-607-32-0580-1	2011	
Laratta, R.	Social Enterprise: Context-dependent dynamics in a global perspective	InTech	Rijeka	978-953-51-2275-3	2016	
Bak, O. y Stair, N. (Coord.)	Impact of E-Business Technologies on Public and Private Organizations: Industry comparasons and perspectives	IGI Global			2011	
Patón-Romero, J.D., Baldassarre, M.T., Rodríguez, M., Runeson, P., Hörst, M., y Piattini, M.	Governance and Management of Green IT: A multi-case study				2021	
Ariño, M.A. y Maella, P.	Iceberg a la vista: principios para tomar decisiones sin hundirse	Empresa Activa	Barcelona	978-84-92452-41-5	2009	