UNIVERSIDAD DE CASTILLA - LA MANCHA
GUÍA DOCENTE

1. General information

Course:	MANAGEMENT OF INFORMATION TECHNOLOGIES	**Code:**	311045
Type:	CORE COURSE	**ECTS credits:**	6
Degree:	2359 - MASTERS DEGREE PROGRAMME IN COMPUTER ENGINEERING (CR-2019)	**Academic year:**	2021-22
Center:	108 - SCHOOL OF COMPUTER SCIENCE OF C. REAL	**Group(s):**	20
Year:	1	**Duration:**	First semester
Main language:	Spanish	**Second language:**	
Use of additional languages:		**English Friendly:**	Y
Web site:	https://campusvirtual.uclm.es	**Bilingual:**	N

Lecturer: CORAL CALERO MUÑOZ - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero/3.23	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	6481	coral.calero@uclm.es	https://esi.uclm.es/categories/profesorado-y-tutorias

Lecturer: MARIA DE LOS ANGELES MORAGA DE LA RUBIA - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero/3.26	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	3748	mariaangeles.moraga@uclm.es	https://esi.uclm.es/categories/profesorado-y-tutorias

Lecturer: FRANCISCO RUIZ GONZALEZ - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero / 3.27	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	3741	francisco.ruizg@uclm.es	https://esi.uclm.es/categories/profesorado-y-tutorias

2. Pre-Requisites

Not established

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

Familiarise oneself with the basics of IT governance

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

Manage and plan IT departments in companies

Have basic knowledge of the strategic management process in IT companies

Possess team management skills for the development of projects

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

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

Apply systems of integration, motivation and development of people

6. Units / Contents

Unit 1: Planning of Information Systems and Technologies

Unit 2: Integration of Information Technology and Business

Unit 3: Governance and Management of Information Technologies

Unit 4: Leadership and Motivation

Unit 5: Team Management

Unit 6: Change Management

ADDITIONAL COMMENTS, REMARKS

The content is divided into two parts:

- P1: Management and Governance of Information Technology (units 1-3).

- P2: Management Skills (units 4-6).

In addition in the part 1, a workshop and case study on Enterprise Architecture is carried out: Design the business, data, application, and IT infrastructure of the company, which can be real or fictitious, and implement it through Archimate standard models using a tool.

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	INS01 PER04	1.04	26	N	-	Teaching of the subject matter by lecturer
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CB07 SIS09	0.32	8	Y	N	Worked example problems and cases resolution by the lecturer and the students
Problem solving and/or case studies [ON-SITE]	Guided or supervised work	CE01 CE02 INS02	0.6	15	Y	N	Preparation of practical case.
Project or Topic Presentations [ON-SITE]	Individual presentation of projects and reports	CB09 SIS05 UCLM03	0.16	4	Y	N	Presentation of the practical case.
Study and Exam Preparation [OFF-SITE]	Self-study	CB10 INS03	1.76	44	N	-	Self-study
Writing of reports or projects [OFF-SITE]	Cooperative / Collaborative Learning	CE01 CE02 INS02	1.52	38	Y	N	Realization and delivery of a practical case.
Progress test [ON-SITE]	Assessment tests	SIS02 UCLM03 UCLM04	0.12	3	Y	Y	Partial test in the middle of the teaching period.
Final test [ON-SITE]	Assessment tests	SIS02 UCLM03 UCLM04	0.16	4	Y	Y	Final test
Writing of reports or projects [OFF-SITE]	Problem solving and exercises	CB07 SIS06	0.32	8	Y	N	Realization and delivery of exercises
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
Projects	25.00%	25.00%	Non-Compulsory activity that can be retaken. Deliverable of a practical case and an exercise of part 1.
Projects	20.00%	20.00%	Non-Compulsory activity that can be retaken. Deliveries of exercises of part 2.

Oral presentations assessment	15.00%	15.00%	Non-Compulsory activity that can be retaken. Oral presentation of the practical case.
Practical exam	10.00%	10.00%	Non-Compulsory activity that can be retaken. Workshop for the preparation of the practical case.
Test	15.00%	15.00%	Compulsory activity that can be retaken. Test of part 1 (units 1 to 3).
Test	15.00%	15.00%	Compulsory activity that can be retaken. Test of part 2 (units 4 to 6).
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:

In compulsory activities, a minimum mark of 40% is required in order to pass that activity and have the possibility to therefore pass the entire subject. The evaluation of the activities will be global and therefore must be quantified by means of a single mark. In the case of the activities that may be retaken (i.e., rescheduling), an alternative activity or test will be offered in the resit/retake exam call (convocatoria extraordinaria).

The partial tests will be common for all the theory/laboratory groups of the subject and will be evaluated by the lecturers of the subject in a serial way, i.e., each part of the partial tests will be evaluated by the same lecturer for all the students.

A student is considered to pass the subject if she/he obtains a minimum of 50 points out of 100, taking into account the points obtained in all the evaluable activities, and also has passed all the compulsory activities.

For students who do not pass the subject in the final exam call (convocatoria ordinaria), the marks of activities already passed will be conserved for the resit/retake exam call (convocatoria extraordinaria). If an activity is not recoverable, its assessment will be preserved for the resit/retake exam call (convocatoria extraordinaria) even if it has not been passed. In the case of the passed recoverable activities, the student will have the opportunity to receive an alternative evaluation of those activities in the resit/retake exam call and, in that case, the final grade of the activity will correspond to the latter grade obtained.

The mark of the passed activities in any call, except for the partial tests, will be conserved for the subsequent academic year at the request of the student, provided that mark is equal or greater than 50% and that the activities and evaluation criteria of the subject remain unchanged prior to the beginning of that academic year. The failure of a student to attend the partial 1 and partial 2 tests will automatically result in her/him receiving a "Failure to attend¿ (no presentado). If the student has not passed any compulsory evaluation activity, the maximum final grade will be 40%.

Non-continuous evaluation:

Students may apply at the beginning of the semester for the non-continuous assessment mode. In the same way, the student may change to the non-continuous evaluation mode as long as she/he has not participated during the teaching period in evaluable activities that together account for at least 50% of the total mark of the subject. If a student has reached this 50% of the total obtainable mark or the teaching period is over, she/he will be considered in continuous assessment without the possibility of changing to non-continuous evaluation mode.

Students who take the non-continuous evaluation mode will be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences), through the assessment systems indicated in the column "Non-continuous evaluation".

In the "non-continuous evaluation" mode, it is not compulsory to keep the mark obtained by the student in the activities or tests (progress test or partial test) taken in the continuous assessment mode.

Specifications for the resit/retake exam:
Evaluation tests will be conducted for all recoverable activities.

Specifications for the second resit / retake exam:
Same characteristics as the resit/retake exam call.

9. Assignments, course calendar and important dates

Not related to the syllabus/contents

Hours	hours

General comments about the planning: The subject is taught in 2 x 2 hours sessions per week, alternating aspects of knowledge (theoretical) with aspects of know-how (practical). It is focused on active learned, for that reaoson. In order to increase active learning, students should carry out different activities by themselves.

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	City	ISBN	Year	Description
Piattini & Ruiz	Gobierno y Gestión de las Tecnologías y los Sistemas de Información	Ra-Ma		978-84-9964-876	2020	Facilita una introducción a los conceptos claves de qué es gobernar y gestionar las TI, los dos tipos de responsabilidades que asumen los responsables TI.
	https://www.ra-ma.es/libro/gobierno-y-gestion-de-las-tecnologias-y-los-sistemas-de-informacion_104970/					
Stephen R. Covey	Los 7 hábitos de la gente altamente eficiente	Paidós		978-8408143987	2015	
Luis Puchol & Isabel Puchol	El libro de las habilidades directivas. 4ª Edición	Díaz de Santos		9788490520413	2016	
Lankhorst	Enterprise Architecture at Work	Springer		978-3-662-53933-0	2017	Buena lectura para entender la importancia y utilidad de la arquitetura empresarial para un responsable TI, especialmente a la hora de alinear tecnología y negocio y planificar y

https://www.springer.com/gp/book/9783662539323