UNIVERSIDAD DE CASTILLA - LA MANCHA
GUÍA DOCENTE

1. General information

Course: DIGITAL TRANSFORMATION OF THE COMPANY

Type: ELECTIVE

Degree: 405 - DEGREE IN COMPUTER SCIENCE ENGINEERING (TA)

Center: 15 - FACULTY OF SOCIAL SCIENCES AND INFORMATION TECHNOLOGIES

Year: 4

Main language: Spanish

Use of additional languages:

Web site: Virtual space of the subject at https://campusvirtual.uclm.es

Code: 42407

ECTS credits: 6

Academic year: 2022-23

Group(s): 60

Duration: First semester

Second language: Spanish

English Friendly: Y

Bilingual: N

Lecturer: **LUIS JIMÉNEZ NAVAJAS** - Group(s): **60**

Building/Office	Department	Phone number	Email	Office hours
1.16	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN		Luis.JimenezNavajas@uclm.es	Available at https://www.uclm.es/toledo/fcsociales/grado-informatica/profesorado-y-tutorias

2. Pre-Requisites

It is desirable (although not compulsory) that the student has passed the subjects of Information Systems, Software Engineering I and Software Engineering II.

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

This subject belongs to module III-SI (Specific Technology of Information Systems), and aims to provide students with the necessary skills to deal with: i) the integration of technologies for digital services in the company, ii) implementing or designing advanced architectures to provide support for digital services, iii) technological innovation for digital transformation.

Because IT is a crucial asset in any company, they are affected by a constant evolution and transformation of their services or processes. In this subject you will learn the key concepts of digital transformation, its enablers and the possible innovations to which they can be subjected.

4. Degree competences achieved in this course

Course competences

Code	Description
INS02	Organising and planning skills.
INS03	Ability to manage information and data.
INS04	Problem solving skills by the application of engineering techniques.
PER01	Team work abilities.
PER02	Ability to work in an international context.
SI01	Ability to integrate information and communiction technology solutions and entrepeneurial process so as to fulfil the needs for information in organisation, allowing them to meet their goals in an effective and efficient manner, providing them with competitive benefits.
SI02	Ability to determine the needs of information and communication systems in an organisation, following security aspects and complying with current laws and regulations.
SI03	Ability to actively take part in the specification, design, implementation, and maintenance of informaiton and communication systems.
SI04	Ability to understand and apply principles and practices of organisations in such a way that they can be the link between technical and managerial aspects, and actively participate in the user's learning process.
SI05	Ability to understand and apply principles for the assessment of risks, and correctly apply them in the elaboration and execution of acting plans.
SI06	Ability to understand and apply principles and management techniques for quality and technological innovation in organisations.
SIS01	Critical thinking.
SIS03	Autonomous learning.
SIS05	Creativity.
SIS08	Initiative and entrepreneurial abilities.
SIS09	Care for quality.
UCLM03	Accurate speaking and writing skills.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Ability to know how to integrate digital services of different types: infrastructure, systems or data.

Knowledge about the importance of innovation as an enabler of digital transformation.

Knowledge of advanced architectures and technologies to support digital services.

Knowledge of the key aspects of digital transformation and its enablers.

Knowledge of advanced technologies, such as blockchain and others, to support digital services.

6. Units / Contents

Unit 1: Introduction to digital transformation
Unit 2: Digital Value
Unit 3: Digital Infrastructure
Unit 4: Application Delivery
Unit 5: Product and Service Management
Unit 6: Digital Innovation

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	INS02	0.6	15	N	-	Teaching of the subject matter by lecturer (MAG)
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	INS02 INS03 INS04 PER01 PER02 SI01 SI02 SI03 SI04 SI05 SI06 SIS01 SIS03 SIS05	0.6	15	Y	N	Worked example problems and cases resolution by the lecturer and the students (PRO)
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	INS04 PER01 PER02 SI01 SI02 SI03 SI04 SI05 SI06 SIS01 SIS05 SIS08 SIS09	0.72	18	Y	Y	Realization of practicals in laboratory /computing room (LAB)
Individual tutoring sessions [ON-SITE]		INS02 SIS03	0.18	4.5	N	-	Individual or small group tutoring in lecturer¿s office, classroom or laboratory (TUT)
Study and Exam Preparation [OFF-SITE]	Self-study	SIS03	1.8	45	N	-	Self-study (EST)
Other off-site activity [OFF-SITE]	Practical or hands-on activities	INS02 INS03 INS04 SI01 SI02 SI03 SI04 SI05 SI06 SIS05	0.9	22.5	N	-	Lab practical preparation (PLAB)
Writing of reports or projects [OFF-SITE]	Self-study	INS02 INS04 PER01 SIS01 SIS03 SIS05 SIS08 UCLM03	0.9	22.5	Y	N	Preparation of essays on topics proposed by lecturer (RES)
Other on-site activities [ON-SITE]	Assessment tests	INS04 SI01 SI02 SI03 SI04 SI05 SI06 SIS01	0.15	3.75	Y	Y	Partial test 1 of the first half of the syllabus of the subject (EVA)
Other on-site activities [ON-SITE]	Assessment tests	INS04 SI01 SI02 SI03 SI04 SI05 SI06 SIS01	0.15	3.75	Y	Y	Partial test 2 of the second half of the syllabus of the subject (EVA)
		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
Test	25.00%	0.00%	Partial Test 1. Compulsory activity that can be retaken (rescheduling). To be carried out at the end of the first half of the teaching period
Test	25.00%	0.00%	Partial Test 2. Compulsory activity that can be retaken. To be carried out within the planned dates of the final exam call. The Partial Test 1 retake will be performed at this date.
Theoretical papers assessment	15.00%	15.00%	Non-compulsory activity that can be retaken. To be carried out before end of teaching period
Laboratory sessions	25.00%	25.00%	Compulsory activity that can be retaken. To be carried out during lab sessions
Oral presentations assessment	10.00%	10.00%	Non-compulsory activity that can be retaken. To be carried out during the theory/lab sessions for students in the continuous assessment modality. The students of non-continuous modality will be evaluated of this activity through an alternative system in the final exam call (convocatoria ordinaria).
Final test	0.00%	50.00%	Compulsory activity that can be retaken (rescheduling) to be carried out within the planned exam dates of the final exam call (convocatoria ordinaria).
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. If the activity consists of several sections, each section may be evaluated separately provided students are informed in writing of this evaluation criterion at the beginning of the academic year. 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 final exam 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 who are unable to attend training activities on a regular basis may apply at the beginning of the semester for the non-continuous assessment mode. Similarly, if a student who is undergoing continuous assessment incurs any circumstance that prevents her/him from regularly attending the classroom-based training activities, she/he may renounce the accumulated mark in continuous assessment and apply 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 course is divided into three weekly sessions of 1.5 hours each.

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Capgemini Consultin	DIGITAL TRANSFORMATION: A ROADMAP FOR BILLION-DOLLAR ORGANIZATIONS https://www.capgemini.com/wp-content/uploads/2017/07/Digital_Transformation__A_Road-Map_for_Billion-Dollar_Organizations.pdf				2011	
Alexander Osterwalder and Yves Pigneur	Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers	John Wiley and Sons		9780470876411	2010	
Dave Hornford, Sriram Sabesan, Vidhya Sriram and Ken Street	The Seven Levers of Digital Transformation. Guidance for Decision-Makers. https://publications.opengroup.org/w17d				2017	
Betz C.	Managing Digital	Van Haren			2018	