UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: INFORMATION SYSTEMS
Code: 42309
Type: CORE COURSE
ECTS credits: 6
Degree: 347 - DEGREE PROGRAMME IN COMPUTER SCIENCE ENGINEERING (CR)
Academic year: 2022-23
Center: 108 - SCHOOL OF COMPUTER SCIENCE OF C. REAL
Group(s): 20 21 22 23
Year: 1
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site: Virtual space for the subject at https://campusvirtual.uclm.es
Bilingual: N

Lecturer: **CORAL CALERO MUÑOZ** - Group(s): **20 23**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero/3.23	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	6481	coral.calero@uclm.es	Available at https://esi.uclm.es/index.php/grado-en-ingenieria-informatica/profesorado/

Lecturer: **ESTER DEL CASTILLO HERRERA** - Group(s): **20 21**

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Lecturer: **MARIA DE LOS ANGELES MORAGA DE LA RUBIA** - Group(s): **22 23**

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Lecturer: **JESÚS RAMÓN OVIEDO LAMA** - Group(s): **22 23**

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	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN		Jesus.Oviedo@uclm.es	Available at https://esi.uclm.es/index.php/grado-en-ingenieria-informatica/profesorado/

Lecturer: **ARTURO PERALTA MARTIN-PALOMINO** - Group(s): **23**

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Lecturer: **MOISES RODRIGUEZ MONJE** - Group(s): **21**

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Fermín Caballero/2.19	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	926052676	Moises.Rodriguez@uclm.es	Available at https://esi.uclm.es/index.php/grado-en-ingenieria-informatica/profesorado/

Lecturer: **LUIS ENRIQUE SANCHEZ CRESPO** - Group(s): **20 21 22**

Building/Office	Department	Phone number	Email	Office hours
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2. Pre-Requisites

This subject is based on the competences and knowledge acquired in the subjects:

- Fundamentos de Programación I.
- Fundamentos de Gestión Empresarial.

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

This subject is integrated into the subject of "Software Engineering, Information Systems and Intelligent Systems" of the curriculum and provides a transversal and integrating overview of the IT context, relating the business and business aspects with the specific aims of Information Technology (IT). To do this, the basic concepts of IT (engineering, abstraction, model, system, project, process, information) are introduced, next the concept of ¿¿computer system (hardware + software + data) is presented. And finally, the more global concept of Information System (IS) as a special type of socio-technical system (with technological and human, social and organizational elements) whose objective is to satisfy the information needs of an organization, is introduced.
This subject provides a horizontal vision of the computer activity. As a result, the student will be able to better understand the role that each subject plays in Computer Science.
The subject present some of the key concepts that will be addressed in the rest of the career.

4. Degree competences achieved in this course

Course competences

Code	Description
CO05	Knowledge, administration, and maintenance of systems, services and digital systems.
CO13	Knowledge and application of the required tools for the storage, process, and access to informational systems, even web based ones.
INS01	Analysis, synthesis, and assessment skills.
INS03	Ability to manage information and data.
INS04	Problem solving skills by the application of engineering techniques.
INS05	Argumentative skills to logically justify and explain decisions and opinions.
PER01	Team work abilities.
SIS01	Critical thinking.
SIS03	Autonomous learning.
SIS04	Adaptation to new scenarios.
SIS05	Creativity.
SIS09	Care for quality.
UCLM02	Ability to use Information and Communication Technologies.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Knowledge of the role of information systems in companies, as well as the main types and characteristics.

Knowledge of security problems in information systems, as well as the main techniques to solve them.

Knowledge and use of the technologies that support the construction and use of information systems.

Identification, modelling, and specifications of software and business requirements for the construction of software systems that implement them.

6. Units / Contents

Unit 1: Basic Concepts

Unit 2: Information Management

Unit 3: The role of the Information Systems

Unit 4: A company from the computer science perspective

Unit 5: Business Requirements and Information Systems

Unit 6: Automatized Information Systems

Unit 7: Something more than technology

ADDITIONAL COMMENTS, REMARKS

PRACTICES

P1: Modeling Ideas. Tool: CMapTools (free).
P2: Information Management. Tool: MS Excel spreadsheet or similar.
P3: Developing a Web SI. Tool: Sharepoint.
P4: Capture and Modeling of Business Requirements. Tools: MS Word or similar free word processor. REM 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]	Combination of methods	CO05 CO13 SIS01 SIS09 UCLM02	0.72	18	N	-	Teaching of the subject matter by lecturer (MAG)
Workshops or seminars [ON-SITE]	Workshops and Seminars	CO05 CO13 INS01 INS04 PER01 SIS03 SIS09	0.12	3	N	-	Workshops or seminars that are part of the lecturer clases (PRO).
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CO05 CO13 INS01 INS04 PER01 SIS03 SIS09	0.48	12	Y	N	Worked example problems and cases resolution by the lecturer and the students (PRO)
Laboratory practice or sessions [ON-SITE]	Lectures	CO05 CO13 INS03 INS04 INS05 PER01 SIS03 SIS05 SIS09 UCLM02	0.1	2.5	N	-	Teaching of practicals in laboratory /computing room (LAB)
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	CO05 CO13 INS03 INS04 INS05 PER01 SIS03 SIS05 SIS09 UCLM02	0.5	12.5	Y	Y	Realization of practicals in laboratory /computing room (LAB)
Individual tutoring sessions [ON-SITE]		CO05 CO13 UCLM02	0.18	4.5	N	-	Individual or small group tutoring in lecturer¿s office, classroom or laboratory (TUT)
Other on-site activities [ON-SITE]	Assessment tests	CO05 CO13 INS01 INS04 INS05 UCLM02	0.14	3.5	Y	Y	Examen to be carried out at the end the teaching period (EVA).
Project or Topic Presentations [ON-SITE]	Lectures	CO05 CO13 INS01 INS04 INS05 UCLM02	0.16	4	Y	N	Oral presentation of a paper (EVA)
Study and Exam Preparation [OFF-SITE]	Self-study	CO05 CO13 SIS01 SIS09 UCLM02	2.1	52.5	N	-	Self-study (EST)
Writing of reports or projects [OFF-SITE]	Guided or supervised work	CO05 CO13 INS01 INS04 INS05 PER01 SIS03	0.9	22.5	Y	N	Resolution of problems (RES)
Other off-site activity [OFF-SITE]	Practical or hands-on activities	CO05 CO13 INS03 INS04 INS05 PER01 SIS03 SIS04 SIS05 UCLM02	0.6	15	N	-	Preparation of practicals of laboratory (PLAB)

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
Final test	50.00%	50.00%	Test. Compulsory activity that can be retaken (rescheduling). To be carried out at the date scheduled for the final examination of the ordinary and extraordinary convocation.
Practicum and practical activities reports assessment	20.00%	20.00%	Deliverables from the scheduled practial activities. Compulsory activity that can be retaken. To be carried out during lab sessions.
Assessment of problem solving and/or case studies	15.00%	15.00%	Deliverables of problems and theory cases (topics t1-t7). Non-compulsary activity that can be retaken. To be done before the end of the teaching period.
Theoretical papers assessment	7.50%	7.50%	Elaboration in group of a theoretical paper. Non-compulsory activity that can be retaken. To be carried out before end of teaching period
Oral presentations assessment	7.50%	7.50%	Oral presentation of the theoretical paper. Non-compulsory activity that can be retaken. To be carried out before the end of the teaching period
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 final exam 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 final exam 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 examcall (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 final exam, 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 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
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	3
Laboratory practice or sessions [PRESENCIAL][Lectures]	2.5
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	12.5
Individual tutoring sessions [PRESENCIAL][]	4.5
Other on-site activities [PRESENCIAL][Assessment tests]	3.5
Project or Topic Presentations [PRESENCIAL][Lectures]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	52.5
Writing of reports or projects [AUTÓNOMA][Guided or supervised work]	22.5
Other off-site activity [AUTÓNOMA][Practical or hands-on activities]	15

General comments about the planning: The subject is taught in 3 x 1,5 hour sessions per week

Unit 1 (de 7): Basic Concepts	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2

Unit 2 (de 7): Information Management	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2

Unit 3 (de 7): The role of the Information Systems	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	1

Unit 4 (de 7): A company from the computer science perspective	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	1
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2.5

Unit 5 (de 7): Business Requirements and Information Systems	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	3
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2.5

Unit 6 (de 7): Automatized Information Systems	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	2

Unit 7 (de 7): Something more than technology	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Combination of methods]	4
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2

Global activity	
Activities	**hours**
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	3
Class Attendance (theory) [PRESENCIAL][Combination of methods]	18
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	12
Laboratory practice or sessions [PRESENCIAL][Lectures]	2.5
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	12.5
Individual tutoring sessions [PRESENCIAL][]	4.5
Other on-site activities [PRESENCIAL][Assessment tests]	3.5
Project or Topic Presentations [PRESENCIAL][Lectures]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	52.5
Writing of reports or projects [AUTÓNOMA][Guided or supervised work]	22.5
Other off-site activity [AUTÓNOMA][Practical or hands-on activities]	15
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Gómez Vieites, Álvaro	Sistemas de información : herramientas prácticas para la ges	Ra-ma		978-84-7897-937-0	2009	
Prieto Espinosa, Alberto	Introducción a la informática	McGraw-Hill, Interamericana de España		84-481-4624-7	2006	
Jane P. Laudon and Kenneth C. Laudon	Management Information Systems	Prentice Hall		978-0132142854	2012	
Coral Calero, María Angeles Moraga y Mario Piattini	Handbook of Research on Web Information Systems Quality	Information Science Reference		1599048477	2008	