UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: SYSTEMS AND SERVICES PLANNING AND INTEGRATION
Code: 42341
Type: CORE COURSE
ECTS credits: 6
Degree: 347 - DEGREE PROGRAMME IN COMPUTER SCIENCE ENGINEERING (CR)
Academic year: 2021-22
Center: 108 - SCHOOL OF COMPUTER SCIENCE OF C. REAL
Group(s): 20
Year: 4
Duration: First semester
Main language: Spanish
Second language: English
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **JAVIER AYLLON PEREZ** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Fermín Caballero	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN	3330	javier.ayllon@uclm.es	Available at https://esi.uclm.es/categories/profesorado-y-tutorias

Lecturer: **JESÚS BLANCO RODRÍGUEZ DE GUZMAN** - Group(s): **20**

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	TECNOLOGÍAS Y SISTEMAS DE INFORMACIÓN		Jesus.Blanco@uclm.es	

2. Pre-Requisites

Advanced networks knowledge, TCP/IP theory and programming. Linux administration experience.

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

In this course, such as others related, comes with th eneed of well trained desginers of systems integration. We will follow the teachings in "Diseño de Infraestructura de Red". We also show contents following all we learnt in "Seguridad en Redes"

4. Degree competences achieved in this course

Course competences

Code	Description
IC01	Ability to design and build digital systems, including computers, based on microprocessors and communication systems.
IC07	Ability to analyse, assess, select, and set up hardware platforms for the development and execution of applications and digital systems.
INS01	Analysis, synthesis, and assessment skills.
INS02	Organising and planning skills.
INS04	Problem solving skills by the application of engineering techniques.
INS05	Argumentative skills to logically justify and explain decisions and opinions.
PER02	Ability to work in multidisciplinary teams.
PER04	Interpersonal relationship skills.
PER05	Acknowledgement of human diversity, equal rights, and cultural variety.
SIS01	Critical thinking.
SIS03	Autonomous learning.
SIS04	Adaptation to new scenarios.
SIS05	Creativity.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Ability to size and integrate systems using the most appropriate hardware and software platforms for the development and execution of computer applications and services.

Configure services and plan the execution of applications

Ability to configure and manage the parameters related to the quality of service of a computer network

Ability to plan and size a SAN, LAN, MAN and WAN network.

6. Units / Contents

Unit 1: Intro. Generic networks

Unit 2: Network convergence.

Unit 3: Design, dimensioning and planning

Unit 4: Study cases
Unit 5: Hands on. PBX with asterisk.

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	IC01 IC07	0.6	15	N	-	Teaching of the subject matter by lecturer
Individual tutoring sessions [ON-SITE]		IC01 IC07	0.18	4.5	N	-	Individual or small group tutoring in lecturer's office, classroom or laboratory
Study and Exam Preparation [OFF-SITE]	Self-study	IC01 IC07	1.8	45	N	-	Self-study
Other off-site activity [OFF-SITE]	Practical or hands-on activities	IC01 IC07	0.9	22.5	N	-	Lab practical preparation
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	IC01 INS04 INS05 PER04	0.6	15	Y	N	Worked example problems and cases resolution by the lecturer and the students
Writing of reports or projects [OFF-SITE]	Self-study	IC01 IC07 INS01 INS02 INS04 INS05 PER02 SIS01 SIS03 SIS04 SIS05	0.9	22.5	Y	N	Preparation of essays on topics proposed by lecturer
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	IC01 IC07 INS04 INS05 PER02 PER04	0.72	18	Y	Y	Realization of practicals in laboratory /computing room
Other on-site activities [ON-SITE]	Assessment tests	IC01 IC07 INS01 INS04 INS05	0.15	3.75	Y	Y	According to the evaluation modality
Other on-site activities [ON-SITE]	Assessment tests	IC01 IC07 INS01 INS04 INS05	0.15	3.75	Y	N	
		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%	25.00%	Partial test 2 of the second half of the syllabus of the subject
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 cannot be retaken. To be carried out during the theory/lab sessions
Test	25.00%	25.00%	Partial test 1 of the first half of the syllabus of the subject
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 3 x 1,5 hour sessions per week.

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Nevio Benvenuto; Michele Zorzi	Principles of Communications Networks and Systems	John Wiley & Sons		978-0-470-74431-4	2011	
Huidobro, José Manuel	Redes y servicios de telecomunicaciones	Paraninfo		84-283-2922-2	2006	
	Regulación, competencia y convergencia de servicios de telecomunicación, audiovisual e Internet	Colegio Oficial de Ingenieros de Telecomunicación				
Forouzan, Behrouz A.	Transmisión de datos y redes de comunicaciones	McGraw-Hill		978-84-481-5617-6	2007	
Randy Zhang	GBP Design and Implementaation	Cisco Press		1-58714-470-0	2016	
Jim Van Meggelen; Russell Bryant; Leif Madsen	Asterisk: The Definitive Guide, 5th Edition	O'Reilly Media, Inc.		978-1-4920-3160-4	2019	