IDENTIFYING DATA
Computer networks 2

Subject	Computer networks 2
Code	O06G150V01505
Study programme	(*)Grao en Enxeñaría Informática

Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	3rd	1st

Teaching language	Spanish Galician
Department	
Coordinator	Diaz-Cacho Medina, Miguel Ramón
Lecturers	Diaz-Cacho Medina, Miguel Ramón Sotelo Martínez, José Manuel
E-mail	mcacho@uvigo.es
Web	http://faitic.uvigo.es
General description	(*)Redes de computadores teórico/práctica, centrada en ferramentas de deseño, configuración e administración de redes LAN, inalámbricas e acceso a Internet. A web da materia está baixo o sistema FAITIC da Unversidade de Vigo, accesible ao alumnado matriculado da materia. A materia impartirase fundamentalmente en castelán e galego, existindo documentación en inglés.

Competencies

Code	
A1	Students will have shown they have sufficient knowledge and understanding of an area of study, starting after completion of general secondary education, and normally reaching a level of proficiency that, being mostly based on advanced textbooks, will also include familiarity with some cutting-edge developments within the relevant field of study.
A2	Students will be able to apply their knowledge and skills in their professional practice or vocation and they will show they have the required expertise through the construction and discussion of arguments and the resolution of problems within the relevant area of study.
A5	Students will acquire the learning skills that are required to pursue further studies with a high degree of independence.
B6	Ability to conceive and develop centralized or distributed computing systems and architectures, integrating hardware, software and networks, according to the knowledge and training acquired.
B8	Knowledge of the essential subjects and technologies that will allow students to learn and develop new methods and technologies, as well as those that will endow them with versatility to adapt to new situations.
C5	Knowledge of the structure, organization, functioning and interconnection of computing systems, the foundations of their programming, and their application to the resolution of specific problems in engineering.
C17	Knowledge and application of the characteristics, functions and structure of Distributed Systems, Computer Networks and the Internet and design and implementation of applications based on them.
C19	Knowledge and application of the necessary tools for storing, processing and accessing information Systems, including web-based ones.
C26	Ability to assess clients needs and determine the software requirements to satisfy these needs, reconciling conflicting goals through attempts to reach acceptable compromises within the limits imposed by costs, available times, existing developed systems and organizations themselves.
C27	Ability to solve problems of integration according to available strategies, standards and technologies.
C29	Ability to identify, assess and deal with associated risks that could potentially arise.
C31	Ability to understand the environment of an organization and its needs in the area of information and communication technologies.
C32	Ability to select, design, implement, integrate, assess, build, manage, exploit and maintain hardware, software and network technologies, within the appropriate costs and quality requirements.
C34	Ability to select, design, implement, integrate and manage networks and communications infrastructures in organizations.

C35	Ability to select, design, implement, integrate and manage information systems that meet the needs of organizations, once the costs and quality criteria have been identified.			
C36	Ability to design systems, applications and services based on network technologies, including the Internet, web, e-commerce, multimedia, interactive services and mobile computing.			
C37	Ability to understand, apply and manage the security and safety of computing systems.			
D1	I1: Analysis, synthesis and assessment skills.			
D2	I2: Organization and planning skills.			
D3	I3: Oral and written communication skills in one[]s native language.			
D5	I5: Abstraction skills: ability to create and use models that reflect real situations.			
D7	I7: Ability to search for, establish links and organize information coming from different sources and to integrate ideas, knowledge and skills.			
D8	I8: Problem-resolution skills.			
D9	I9: Ability to make decisions.			
D10	I10: Ability to present arguments and justify one[]s decisions and opinions in logical terms.			
D11	P1: Ability to act independently.			
D12	P2: Ability to work in situations where information is lacking and under pressure.			
D13	P3: Ability to quickly fit into a group and to work efficiently in intradisciplinary teams and to cooperate in an interdisciplinary environment.			
D15	P5: Interpersonal relations skills.			
D16	S1: Critical-thinking skills.			
D18	S3: Independent-learning skills.			
D19	S4: Ability to adapt to new situations.			
D20	S5: Creativity.			
D21	S6: Leadership skills.			
D22	S7: Ability to take the initiative and be determined.			
D24	S9: Commitment to striving for quality and continuous improvement.			

Learning outcomes

Expected results from this subject			Training and Learning Results	
New	A5		C5 C17 C19 C35	D2 D7 D15 D21 D24
New	A5		C17 C27	D1 D9 D11 D16
New		B8	C26 C27 C37	D8 D10 D24
New	A2		C5 C34 C35 C36	D10 D13 D15 D19 D20
New	A2		C26 C27	D1 D9 D10 D11 D12 D18
New	A1	B8	C5 C19 C29 C37	D3 D7 D9 D16 D18
New	A1	B8	C17 C19 C31	D3 D13 D22

New		A1	B6	C5	D5
				C17	D7
				C26	D9
				C27	D10
				C31	D11
				C32	
				C34	
				C35	
				C37	

Contents

Topic	
(*)1. *Introducción The wools *comunicaciones *y (*) nets of computers2. Means of transmission. *Topologías Of *red.	
(*)2. Means of transmission. *Topologías Of *red.	(*)Half guided.Means in the guided.*Estructuras Of *red.*Topologías.
(*)Block 3: Nets *troncales of extensive area.	(*)
(*)Prácticas de Laboratorio	(*)Deseño, configuración e administración de topoloxías LAN e acceso a WAN e Internet.

Planning

	Class hours	Hours outside the classroom	Total hours
Workshops	12	32	44
Laboratory practical	14	26	40
Introductory activities	2	0	2
Lecturing	20	40	60
Objective questions exam	3	0	3
Essay questions exam	1	0	1

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Workshops	(*)Son exercicios prácticos e supostos que se expoñen e desenvolven en laboratorio de redes.
Laboratory practical	(*)Son prácticas pechas de traballo en contornas de rede reais en laboratorio.
Introductory activities	(*)Prodúcense fundamentalmente ao comezo da impartición da materia, para poñer en valor os contidos que se van a dar e buscar e estimular a paixón por a mesma mediante a confrontación dos contidos con situacións na vida real.
Lecturing	(*)Explicación teórica por parte do profesorado do contido da materia

Personalized assistance

Methodologies	Description
Workshops	
Laboratory practical	

Assessment

Description	Qualification Training and Learning Results

Objective questions exam	(*)Realización dunha proba tipo test sobre os contidos aprendidos ao longo do curso Se evaluan as competencias seguintes: RA01,RA02,RA03,RA04,RA05,RA06,RA07,RA08.	65	A1 A2 A5	B6 B8	C5 C17 C19 C26 C27 C29 C31 C32 C34 C35 C36 C37	D1 D2 D3 D5 D7 D8 D9 D10 D11 D12 D13 D15 D16 D18 D19 D20 D21 D22 D24
Essay questions exam	(*)Formulación dun suposto a resolver. Se evaluan os resultados de aprendizaxe seguintes: RA06,RA07,RA08	35	A1	B6 B8	C5 C17 C19 C26 C27 C29 C31 C32 C34 C35 C36 C37	D3 D5 D7 D9 D10 D11 D16 D18 D22

Other comments on the Evaluation

Sources of information

Basic Bibliography

Kurose J., **Redes de Computadoras**, 6ª, Pearson Education, 2012

Complementary Bibliography

Stallings W., **Comunicaciones y Redes de Computadores**, 7ª,

Tannenbaum, **Redes de Ordenadores**,

Shroder C., **Redes en Linux**, 1ª,

Recommendations

Subjects that continue the syllabus

Final Year Dissertation/O06G150V01991

Subjects that are recommended to be taken simultaneously

Operating systems 2/O06G150V01405

Data centres/O06G150V01601

Subjects that it is recommended to have taken before

Computer networks 1/O06G150V01404