Teaching guide

IDENTIFICATION DETAILS

Degree:	Computer Engineering

Field of Knowledge:	Engineering and Architecture

Faculty/School:	Senior Polytechnic School

Course:	

Type:	Compulsory	ECTS credits:	6

Year:	3	Code:	3631

Teaching period:	Fifth semester

Area:	Computers and Systems

Module:	IT core subject

Teaching type:	Classroom-based

Language:	Spanish

Total number of student study hours:	150

SUBJECT DESCRIPTION

This course deals with the different protocols and topologies that exist in computer networks and acquaints students with the operation of a network environment and the design of communications solutions that meet the requirements of each case. It also describes the principles of distributed systems and the main architectures that sustain them.

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

General Skills

An ability to conceive, draft, organise, plan, develop and execute projects in the field of computer engineering whose purpose is to conceive, develop or exploit computer applications, services and systems.

Knowledge for preparing measurements, calculations, valuations, appraisals, inspections, studies, reports, task planning and other similar computing work.

An ability to design, develop, assess and guarantee the accessibility, ergonomics, usability and security of computer applications, services and systems, and the information managed therein.

An ability to define, assess and choose hardware and software platforms for the development and execution of computer applications, services and systems.

An ability to conceive, develop and maintain computer applications, services and systems using software engineering methods as an instrument to ensure quality.

An ability to conceive and develop computer systems or architectures that are centralised or distributed, integrating hardware, software and networks.

Knowledge of the basic materials and technologies, giving rise to learning and the developing of new methods and technologies, and which also provide huge versatility to adapt to new contexts.

Specific skills

Knowledge and application of the characteristics, functionalities and structure of distributed systems, computer networks and the Internet, and an ability to implement applications based on them.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
68 hours	82 hours