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:	3620

Teaching period:	Fifth semester

Area:	Software Design and Development

Module:	IT core subject

Teaching type:	Classroom-based

Language:	Spanish

Total number of student study hours:	150

SUBJECT DESCRIPTION

Once students have acquired basic knowledge about databases, on the Advanced Databases course they are offered the tools they require for them to provide database management systems with new functions, improved performance in a shorter response time and a reduced chance of system crashes.

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

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

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.

An ability to solve problems with initiative, with effective decision-making, independence and creativity. Capacity for being able to communicate and convey knowledge and skills of the technical computer engineering profession.

Specific skills

Knowledge, administration and maintenance of computer applications, systems and services.

Knowledge, design and effective use of the most suitable data structures and types for solving problems.

Knowledge and application of the characteristics, functionalities and structure of databases making it possible to use them suitably, and of the design, analysis and implementation of applications stemming from them.

Knowledge and application of the tools needed to store, process and access information systems, including web-based systems.

An ability to design, develop, choose and assess computer applications and systems, ensuring their reliability, security and quality in line with ethical principles, legislation and applicable regulations.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
67 hours	83 hours