

Teaching guide

IDENTIFICATION DETAILS

Degree:	Computer Engineering		
Field of Knowledge:	Engineering and Architecture		
Faculty/School:	Senior Polytechnic School		
Course:	SOFTWARE ENGINEERING I		
Type:	Compulsory	ECTS credits:	6
Year:	2	Code:	3635
Teaching period:	Third 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

The Software Engineering I course establishes principles of engineering in software development using methods, advanced techniques and tools that ensure an economical, reliable and effective design and construction of software in accordance with current regulations.

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.

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 learn, understand and apply legislation needed in the professional practice of a technical computer engineer and handle specifications, regulations and mandatory rules.

Specific skills

An ability to analyse, design, build and maintain applications in a robust, secure and efficient manner, choosing the most appropriate programming languages and paradigm.

Knowledge and application of software engineering principles, methodologies and life cycles.

An ability to design and assess person-computer interfaces, ensuring accessibility to and usability of computer applications, services and 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.

An ability to plan, conceive, deploy and direct computer systems, services and projects in all fields, taking a leading role in their implementation and on-going improvement, and assessing their economic and social impact.

DISTRIBUTION OF WORK TIME

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