

Teaching guide

IDENTIFICATION DETAILS

Degree:	Computer Engineering		
Field of Knowledge:	Engineering and Architecture		
Faculty/School:	Senior Polytechnic School		
Course:	INTRODUCTION TO COMPUTER ENGINEERING		
Type:	Basic Training	ECTS credits:	6
Year:	1	Code:	3646
Teaching period:	First semester		
Area:	IT		
Module:	Basic Training		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

SUBJECT DESCRIPTION

The Basics of Computer Engineering course is designed to provide students with an overview of computer engineering. To do so, it starts by presenting the historical foundations of the discipline and analysing its role in today's society. It then goes on to provide the basic aspects that cover the main areas of computer engineering: the representation, management and storage of data, programs, compilers and the fundamentals of programming, types of computer systems and their hardware structure, operating systems and principles of connectivity and computer networks.

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 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

Basic knowledge of the use and programming of computers, operating systems, databases and computer programmes with applications for engineering.

Knowledge of the structure, organisation, operation and interconnection of computer systems, programming foundations and their application to solving engineering-specific problems.

DISTRIBUTION OF WORK TIME

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