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:	3634

Teaching period:	Sixth semester

Area:	Computing

Module:	Specific Technology

Teaching type:	Classroom-based

Language:	Spanish

Total number of student study hours:	150

SUBJECT DESCRIPTION

The Theory of PLCs and Formal Languages course provides students with the essentials to understand the basic principles of the theory of computation and design of robots. It also explores the theoretical aspects of the design of programming languages. The study of regular languages, context-free languages and Turing machines is the core feature of the course.

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, 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.

Specific skills

An ability to gain an in-depth knowledge of basic computing principles and models and be able to apply them to interpret, choose, value, model and create new technological developments, concepts, theories and uses linked to computing.

An ability to assess the computational complexity of a problem, being familiar with algorithmic strategies that may lead to their resolution, and recommend, develop and implement the right strategy to ensure the best performance in line with the requirements established.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
66 hours	84 hours