

Teaching guide

IDENTIFICATION DETAILS

Degree:	Computer Engineering		
Field of Knowledge:	Engineering and Architecture		
Faculty/School:	Senior Polytechnic School		
Course:	KNOWLEDGE ENGINEERING		
Type:	Compulsory	ECTS credits:	6
Year:	4	Code:	3658
Teaching period:	Seventh semester		
Area:	Computing		
Module:	Specific Technology		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

SUBJECT DESCRIPTION

Knowledge Engineering is part of Artificial Intelligence. It deals with the development of Expert Systems or Knowledge-based Systems. It initially addresses the methods of problem-solving that exist and then analyses how knowledge can be extracted in a particular area and how it can be represented using ontologies so that this knowledge may be managed through the use of computers.

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.

Specific skills

Familiarity with the fundamental aspects, paradigms and techniques specific to smart systems and an ability to analyse, design and build computer applications, services and systems using said techniques in any field of application.

An ability to acquire, obtain, formalise and represent human knowledge in a computable manner to solve problems by means of a computer system in any field of application, particularly those relating to computing, perception and action in smart settings or environments.

An awareness of and the ability to develop computational learning techniques and to design and implement applications and systems using said techniques, including those devoted to the automatic extraction of information and knowledge from large bodies of data.

DISTRIBUTION OF WORK TIME

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