Universida_de_Vigo

IDENTIFYING DATA
Quantum computing and machine learning

Subject	Quantum computing and machine learning
Code	V05M198V01108
Study programme	(*)Máster Universitario en Ciencia e tecnoloxías de información cuántica

Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	1st

Teaching language	
Department	
Coordinator	
Lecturers	
E-mail	
Web	http://guiadocente.udc.es/guia_docent/index.php?centre=614&ensenyament=614551&assignatura=614551008&any_academic=2023_24&any_academic=2023_24
General description	

Training and Learning Results

Code	
A9	Know and know how to apply advanced aspects of quantum computing: quantum learning, efficient quantum architecture, mode of operation of two quantum accelerators, high-performance computing, quantum systems based on rules and applications to numerical calculation.
A10	Know scenarios of practical application of quantum computing in problems of scientific, technological and financial interest. Identify domains that exhibit quantum advantage. Know the institutions and companies that are actors in quantum computing, acquiring a perspective of the agenda that is reasonable to expect in the coming years.
B4	To have knowledge of quantum computing, algorithms, circuits, its programming in different languages and accessible platforms.
B15	To have knowledge of high-level aspects of quantum computing: learning quantum machines, quantum simulators, architectures, etc.
C1	To analyze and break down a complex concept, examine each part and see how they fit together
C2	To classify and identify types or groups, showing how each category is different from the others
C3	To compare and contrast and point out similarities and differences between two or more topics or concepts

Expected results from this subject

Expected results from this subject	Training and Learning Results

New

A9
A10
B4
B15
C1
C18
C2
C18
C3
C18
C18
C18
C18
C18
C18
D18
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Contents

Topic

Planning

	Class hours	Hours outside the classroom	Total hours

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

Description

Personalized assistance

Assessment

Description	Qualification	Training and Learning Results

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations