## Universida<sub>de</sub>Vigo

Subject Guide 2023 / 2024

	YING DATA			
	n computing architectures			
Subject	Quantum computing			
	architectures			
Code	V05M198V01120			
Study	(*)Máster Universitario en			
programn	ne Ciencia e tecnoloxías de			
	información cuántica			
Descripto	rs ECTS Credits	Choose	Year	Quadmester
	3	Optional	1st	1st
Teaching		·		
language				
Departme	ent			
Coordinat				
Lecturers				
E-mail				
Web	http://guiadocente.udc.es/guia_docent/index.php academic=2023 24&any academic=2023 24	o?centre=614&ensenyamen	t=614551&assi	gnatura=614551022&any
General				
descriptio	n			

## **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.
- B16 To have knowledge of quantum computer architectures, different platforms and "full stack".
- 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	A14
	A9
	A10
	B18
	B4
	B18
	B18
	B18
	B18
	B16
	C1
	C2
	C3
	C18
	D18

Contents	
Торіс	

Planning							
		Class hours	Hours outside the classroom	Total hours			
*The information in t	he planning table is for g	uidance only and does no	t take into account the hete	erogeneity of the students.			
Methodologies							
	Description						
Personalized assist	tance						
Assessment							
Description	Qualification		Training and Learning Results				
Other comments on the Evaluation							
Sources of information							
<b>Basic Bibliography</b>							
Complementary Bibliography							

Recommendations