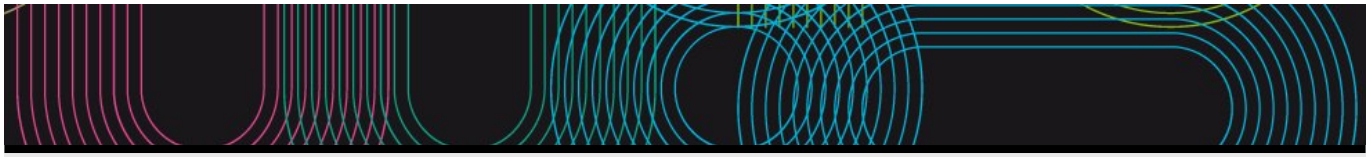

IDENTIFYING DATA				
Fundamentals of quantum information				
Subject	Fundamentals of quantum information			
Code	V05M198V01104			
Study programme	(*)Máster Universitario en Ciencia e tecnoloxías de información cuántica			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language				
Department				
Coordinator				
Lecturers				
E-mail				
Web	http://guiadocente.udc.es/guia_docent/index.php?centre=614&ensenyament=614551&assignatura=614551004&any_academic=2023_24&any_academic=2023_24			
General description				

Training and Learning Results	
Code	
A7	Acquire and know how to apply the basic principles of quantum computing: analyze, understand and implement quantum algorithms, master the appropriate computer languages as well as understand the paradigm of two quantum circuits.
A8	Know the classical computing algorithms and strategies inspired by quantum computing: tensor networks, product states of matrices, etc.
B3	To know the physical bases that allow encoding and processing information. Understanding of the new rules that Quantum Mechanics imposes for its processing.
B4	To have knowledge of quantum computing, algorithms, circuits, its programming in different languages and accessible platforms.
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 A14 A14 A14 A14 A7 A8 B3 B4 C1 C2 C18 C3 C18 C18 C18 C18 C18 C18 C18 D18 D18 D18 D18 D18 D18

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