



IDENTIFYING DATA

Experimental techniques for quantum information

Subject	Experimental techniques for quantum information			
Code	V05M198V01121			
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://www.usc.gal/gl/estudos/masteres/ciencias/master-universitario-ciencia-tecnoloxias-informacion-cuantica			
General description				

Training and Learning Results

Code				
A2	Know and acquire competence in experimental techniques for the processing of quantum information: interactions, measurements, oscillations, interference, communication systems, ...			
A4	Know and be able to apply the physical theories inherent to the understanding of systems for quantum information processing, including quantum thermodynamics as well as advanced aspects of magnetism and quantum mechanics.			
A5	Know and understand the nature of the physical platforms for the processing of quantum information in solid state systems: superconducting systems, cryoscience and quantum materials, including or studying two topological states.			
A11	Acquiring a solid foundation on quantum theory gives information on its application in quantum communications, as well as on the technology of two photonic devices used in quantum communications, both terrestrial and aerial and via satellite.			
B1	To know the theoretical foundations of quantum mechanics, the mathematical formalism, the axioms and simpler systems.			
B17	To have knowledge of experimental techniques of quantum information and communication. Optical and solid state devices.			
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
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New

A2
A14
A4
A5
A11
B1
B18
B18
B17
C1
C2
C3
C18
C18
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