



IDENTIFYING DATA

Open systems and quantum thermodynamics

Subject	Open systems and quantum thermodynamics		
Code	V05M198V01206		
Study programme	(*)Máster Universitario en Ciencia e Tecnoloxías de Información Cuántica		
Descriptors	ECTS Credits	Choose	Year
	3	Optional	1st
Teaching language			
Department			
Coordinator			
Lecturers	Fernández Veiga, Manuel		
E-mail			
Web	http://www.usc.gal/gl/estudios/masteres/ciencias/master-universitario-ciencia-tecnoloxias-informacion-cuantica/20232024/sistemas-abertos-termodinamica-cuantica-19345-18438-3-103746		
General description			

Training and Learning Results

Code	
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.
A6	Know and understand the nature of the physical platforms for the processing of quantum information in photonic systems: quantum optics, integrated optical systems, opto-atomic systems, detection and measurement systems, semiconductor photonics.
B1	To know the theoretical foundations of quantum mechanics, the mathematical formalism, the axioms and simpler systems.
B2	To acquire knowledge about quantum systems with many degrees of freedom as a means of storing and processing information.
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

A14
A14
A14
A14
A4
A14
A6
B1
B2
B18
C1
C2
C3
C18
D18
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