



IDENTIFYING DATA

Physical systems for quantum information

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| Subject | Physical systems for quantum information | | |
| Code | V05M198V01113 | | |
| 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 | Fernández Veiga, Manuel | | |
| E-mail | | | |
| Web | http://www.usc.gal/gl/estudios/masteres/ciencias/master-universitario-ciencia-tecnoloxias-informacion-cuantica/20232024/sistemas-fisicos-informacion-cuantica-19345-18438-3-103744 | | |
| General description | | | |

Training and Learning Results

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| 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. |
| B6 | To acquire knowledge about physical systems capable of implementing information processing in quantum degrees of freedom. |
| B7 | To have knowledge of quantum optics and the role and properties of light and its manipulation in quantum information processing and communications. |
| B10 | Knowledge about new solid-state quantum materials, their physical and topological properties. |
| 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

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|------------------------------------|---|
| Expected results from this subject | Training and Learning Results |
| New | A4 A6 B6 B7 B10 C18 C1 C2 C3 C18 C18 D18 |

Contents

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| Topic |
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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
