

COURSE DETAIL

QUANTUM PHYSICS I

Country

Spain

Host Institution

Complutense University of Madrid

Program(s)

Complutense University of Madrid

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics

UCEAP Course Number

119

UCEAP Course Suffix**UCEAP Official Title**

QUANTUM PHYSICS I

UCEAP Transcript Title

QUANTUM PHYSICS I

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course offers a study of the origin and experimental basis of Quantum Physics. It discusses the concept of wave function, mathematical formalism, states, and observables. This course covers Schrödinger's equation to solve one and three-dimensional problems with spherical symmetry (hydrogen atom and harmonic oscillator).

Pre-requisites: Mathematical concepts learned in Algebra and Calculus and Mathematical Methods I. Physical concepts learned in Classical Mechanics and Electromagnetism I

Language(s) of Instruction

Host Institution Course Number

800503

Host Institution Course Title

FÍSICA CUÁNTICA I

Host Institution Course Details

<https://www.ucm.es/data/cont/docs/18-2025-05-10-800503%20-%20F%C3%ADsica%20cu%C...>

Host Institution Campus

MONCLOA

Host Institution Faculty

Facultad de Ciencias Físicas

Host Institution Degree

GRADO EN FÍSICA

Host Institution Department

Departamento de Física Teórica

Course Last Reviewed

2025-2026

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