

**History of Physics**

Code: 100170  
ECTS Credits: 6

Degree	Type	Year	Semester
2500097 Physics	OT	4	0

**Contact**

Name: Xavier Roqué Rodríguez  
Email: Xavier.Roque@uab.cat

**Use of languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Prerequisites**

The subject does not require a previous knowledge of history nor any specific subject of the degree. The program does take into account that the student has an advanced knowledge of physics.

**Objectives and Contextualisation**

The subject deals with the past and present of Physics with 4 aims:

- 1 To describe the main changes in the structure, methods and concepts of Physics.
  - 2 To identify the different ways of practising Physics, taking into account the institutional structure of the discipline.
  - 3 To analyze the social, cultural, and gender relations of Physics.
  - 4 To recognize the historical sources of Physics and the methodological problems that they pose.
- The subject also has the general aim of improving the student's capacity to advance and contrast arguments.

**Content**

The contents are grouped in two chronological parts. The first one deals with the rise of classical physics, from Antiquity through the Enlightenment; the second deals with the development of contemporary physics.

Part 1

- 1 Introduction: physics and history
- 2 Physics, movement and cosmology
- 3 The astronomical revolution
- 4 Newton and The Mathematical Principles of Natural Philosophy
- 5 Electricity and Enlightened physics

Part 2

- 6 The birth of a discipline: classical physics

- 7 The new physics: matter, energy and radiation
- 8 The quantum and relativistic revolutions
- 9 Physics, gender, culture and society in the 20th century
- 10 Physics in Spain and Catalonia