

## Course guide

### 230769 - BSI - Biopham Short Internship

**Last modified:** 11/05/2022

**Unit in charge:** Barcelona School of Telecommunications Engineering  
**Teaching unit:** 748 - FIS - Department of Physics.

**Degree:** ERASMUS MUNDUS MASTER'S DEGREE IN BIO & PHARMACEUTICAL MATERIALS SCIENCE (Syllabus 2021).  
(Compulsory subject).

**Academic year:** 2022    **ECTS Credits:** 5.0    **Languages:** English

#### LECTURER

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**Coordinating lecturer:** Roberto Macovez

**Others:**

#### PRIOR SKILLS

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none

#### REQUIREMENTS

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none

#### TEACHING METHODOLOGY

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- Guided literature search on a specific scientific topic related to the BIOPHAM Master programme
- Self-study of literature survey
- Supervised laboratory and/or computer research work, supervised by external or UPC project tutor
- Autonomous data collection and/or analysis
- Individual preparation of a report in the form of a scientific paper (structure supervised by course coordinator) on the goals and results obtained by the student in his/her the reserach project

#### LEARNING OBJECTIVES OF THE SUBJECT

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The objective of this course is to introduce the student to the methodology of scientific research in Materials Science applied to pharmaceutical products and biophysical systems. For this purpose, the student will personally carry out a research project under the supervision of an expert in the field, either from the public or private sector.

The students will perform a literature search at the beginning of the project, to help them define their goal and plan their strategy, and they will write a report in the form of a scientific article at the end of it.

The expected results of this course are that the students:

- learn how to critically carrying out bibliography search on a research topic, analysing the state of the art or an open problem in their project of choice;
- obtain operative, hands-on knowledge of the experimental and/or computational tools available for their project;
- get acquainted with the scientific method, acquiring the ability of formulating working hypotheses, and proposing and carrying out simulations, models and/or experiments to validate or refute such hypotheses, and analyze the results obtained.
- practice how to present scientific results to the research community by preparing a report in the form of a journal article

## STUDY LOAD

Type	Hours	Percentage
Hours small group	39,0	31.20
Self study	86,0	68.80

**Total learning time:** 125 h

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### It will depend on the specific project

**Description:**

A research topic in Materials Science applied to pharmaceutical products or biophysical systems (depending on the specific project)

**Full-or-part-time:** 125h

Guided activities: 39h

Self study : 86h

## GRADING SYSTEM

The student mark will be determined by two items:

- An evaluation of the student's work and his/her overall commitment to the project, done by the external or UPC expert supervising the project work, and expressed as a numerical mark between 0 and 10 (ET)
- An evaluation of the student's report (in the format of a scientific article on the results of the project), done by the course coordinator, and expressed as a numerical mark between 0 and 10 (NM). Students must hand in the report to pass the course.

The students mark will be then calculated as:

$$\text{course mark} = 0.8 \cdot \text{ET} + 0.2 \cdot \text{NM}$$

## EXAMINATION RULES.

For their report, students will follow a format provided by the course coordinator on the Atenea platform