

### **External Practicum**

Code: 103656 ECTS Credits: 12

2024/2025

Degree	Туре	Year
2500097 Physics	ОТ	4

### Contact

Name: Immaculada Martínez Rovira
Email: immaculada.martinez@uab.cat

### **Teachers**

Maria Jose Garcia Fuste

## **Teaching groups languages**

You can view this information at the <u>end</u> of this document.

# **Prerequisites**

There are no academic prerequisites to take this course. However, it is necessary to consider:

- It is recommended that the student who enrolls in this subject is finishing the degree because she/he will have taken optional subjects that will allow her/him to have more knowledge applicable to the External Internships.
- It is necessary to have time available to reconcile the work tasks outside the UAB with the ordinary academic year.

### **Objectives and Contextualisation**

The main objective of this course is that students can put into practice the knowledge acquired during the degree and introduce the student into the world of work by offering a possible future path of employment. Physics students may take the subject of External Internships in any of the Companies, Services or Institutes with which the Physics Department establishes a collaboration agreement.

### Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values
- Apply fundamental principles to the qualitative and quantitative study of various specific areas in physics

- Communicate complex information in an effective, clear and concise manner, either orally, in writing or through ICTs, and before both specialist and general publics
- Develop the capacity for analysis and synthesis that allows the acquisition of knowledge and skills in different fields of physics, and apply to these fields the skills inherent within the degree of physics, contributing innovative and competitive proposals.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Plan and perform, using appropriate methods, study, research or experimental measure and interpret and present the results.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Use computer tools (programming languages and software) suitable for the study of physical problems
- Use critical reasoning, show analytical skills, correctly use technical language and develop logical arguments
- Using appropriate methods, plan and carry out a study or theoretical research and interpret and present the results
- Work independently, have personal initiative and self-organisational skills in achieving results, in planning and in executing a project
- Working in groups, assume shared responsibilities and interact professionally and constructively with others, showing absolute respect for their rights.

## **Learning Outcomes**

- 1. Acquire autonomy in work, contributing personal initiative and organising oneself to attain results within the framework of a project or study.
- 2. Acquire knowledge and skills from different fields within physics and apply the skills pertaining to a Degree in Physics to these.
- 3. Apply the knowledge acquired in different courses to a professional or research context.
- 4. Communicate complex information in an effective, clear and concise manner, either orally, in writing or through ICTs, in front of both specialist and general publics.
- 5. Demonstrate knowledge and skills in different fields within physics.
- 6. Explain the explicit or implicit code of practice of one's own area of knowledge.
- 7. Identify situations in which a change or improvement is needed.
- 8. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
- 9. Interpret and communicate the results obtained in a study through the correct use of technical language and logical arguments.
- 10. Plan and conduct a practical study using appropriate methods and contributing innovational and competitive proposals.
- 11. Use critical reasoning, show analytical skills, correctly use technical language and develop logical arguments
- 12. Use suitable computer tools in the resolution of problems, the execution of studies or projects and the presentation and diffusion of results.
- 13. Work independently, take initiative itself, be able to organize to achieve results and to plan and execute a project.
- 14. Working in groups, assume shared responsibilities and interact professionally and constructively with others, showing absolute respect for their rights.

#### Content

Each of the companies or external centres of the UAB where external internships can be carried out have different areas of work and therefore the contents of the internships will depend on the work that is carried out. Before starting an external internship it will be necessary for the student to have a work plan agreement with the company or centre detailing the tasks and contents of the work to be carried out. This work plan must be approved by the external internships coordinator in order to start the internship.

# **Activities and Methodology**

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Directed activities in companies or centres	295	11.8	
Type: Autonomous			
Autonomous activities	5	0.2	

- The external intership can be carried out in either of the two terms of the course or during the summer.
- The students will be able to carry out the external intership in companies of the historical catalogue of companies of the degree of Physics, companies that are looking for a student or other companies that the student has contacted.
- During the month prior to the internship, the student contacts the external intership coordinator and they agree on the company where the internship can be carried out.
- The student meets with the contact person of the company who will act as tutor for the internship, to whom he/she delivers his/her personal resume and with whom he/she has to agree on: the tasks to be performed, the period and the schedule. With this information, plus the contact information of the person signing the company's internship agreements, they fill out and sign the "Dades formalització agreement" form.
- The student sends document "Dades formalització conveni" to the external intership coordinator, who check the work plan, signs the document and send it to Gestió Acadèmica to initiates the process of signing the agreement.
- The student receives the agreement from the Oficina de Gestió Acadèmica once signed by both parties and performs the internship in the period agreed with the company. It must be taken into account that PRACTICES CANNOT BE INITIATED WITHOUT THE SIGNED AGREEMENT.
- Once the internship is over, the student will write a report, which must be presented according to the format and deadlines established by the external intership coordinator.
- Finally, the company tutor will carry out an evaluation according to the regulatory model which will be send within the established evaluation period directly to the external intership coordinator.
- \* ALL THE INFORMATION AND DOCUMENTATION RELATING TO THE EXTERNAL INTERSHIPS CAN BE FOUND HERE: https://www.uab.cat/web/estudiar/graus/graus/grau-de-fisica-1345722992726.html

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

### **Assessment**

#### **Continous Assessment Activities**

Title	Weighting	Hours	ECTS	Learning Outcomes

Directed activities in the company or centre: evaluation by the company/centre tutor	40%	0	0	9, 12
External intership evaluation by the coordination: final report	60%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14

The evaluation of the subject will be carried out on the basis of two concepts: an evaluation by the company tutor (60%) and the final report of the internship given to the coordinator (40%).

The coordinator of external interships reserves the right to take an oral exam regarding the final report of internships if he deems it appropriate.

# **Bibliography**

There is no assigned bibliography.

### **Software**

No software is required for this subject.

# Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.