Universitat Autònoma de Barcelona

2023/2024

External Practicum

Code: 103656
ECTS Credits: 12

Degree	Type	Year	Semester
2500097 Physics	OT	4	0

Contact

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Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Maria Jose Garcia Fuste

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 a work task 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. Information on the necessary protocol to follow can be found on the Physics Department website.

Methodology

- 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 companies with which the student has made a first contact.

- 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 is interviewed by the contact person of the company, to whom he/she gives his/her personal curriculum and with whom he/she has to agree: the tasks to be carried out; the period, timetables and total dedication of the student. With this information, the company fills out and signs the "la fitxa del pla de treball". If there is no agreement, the student contacts the external intership coordinator to look for an alternative company.

- The student sends the work plan to the external intership coordinator who, if he or she agrees with the work plan, completes and signs the agreement proposal. The student takes the proposal to the Oficina de Gestió Acadèmica that initiates the process of agreement.

- The student collects 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 delivered within the established evaluation period in a sealed envelope.

* ALL THE INFORMATION AND DOCUMENTATION RELATING TOTHE EXTERNAL INTERSHIPS ARE ON THE WEB OF THE PHYSICAL DEPARTMENT:
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.

Activities

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

Assessment

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 person in charge of the subject reserves the right to take an oral exam regarding the final report of internships if he deems it appropriate.

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, 8, 7, 10, 11, 13, 14

Bibliography

There is no assigned bibliography.

Software

No software is required for this subject.