

## External Work Placement

Code: 103269

ECTS Credits: 12

**2025/2026**

Degree	Type	Year
Nanoscience and Nanotechnology	OT	4

### Contact

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### Teaching groups languages

You can view this information at the [end](#) of this document.

### Prerequisites

To enroll, you must have completed all first-year subjects and earned at least 120 credits from the first three years.

### Objectives and Contextualisation

The main objective of the course is to enable students to apply the knowledge acquired during their bachelor's studies in a professional work environment.

### Competences

- Adapt to new situations.
- Apply ethical principles and legislative standards to the field of nanoscience and nanotechnology.
- Apply the concepts, principles, theories and fundamental facts of nanoscience and nanotechnology to solve problems of a quantitative or qualitative nature in the field of nanoscience and nanotechnology.
- Apply the general standards for safety and operations in a laboratory and the specific regulations for the use of chemical and biological instruments, products and materials in consideration of their properties and the risks.
- Be ethically committed.
- Communicate orally and in writing in one's own language.
- Demonstrate knowledge of legislation on intellectual property in the field of knowledge and application of nanoscience and nanotechnology.
- Demonstrate knowledge of the concepts, principles, theories and fundamental facts related with nanoscience and nanotechnology.
- Handle the standard instruments and materials of physical, chemical and biological testing laboratories for the study and analysis of phenomena on a nanoscale.
- Interpret the data obtained by means of experimental measures, including the use of computer tools, identify and understand their meanings in relation to appropriate chemical, physical or biological theories.
- Manage the organisation and planning of tasks.
- Obtain, manage, analyse, synthesise and present information, including the use of digital and computerised media.

- Operate with a certain degree of autonomy.
- Reason in a critical manner
- Recognise the terms used in the fields of physics, chemistry, biology, nanoscience and nanotechnology in the English language and use English effectively in writing and orally in all areas of work.
- Resolve problems and make decisions.
- Show initiative and an enterprising spirit.
- Show motivation for quality.
- Show sensitivity for environmental issues.
- Work correctly with the formulas, chemical equations and magnitudes used in chemistry.
- Work on the synthesis, characterisation and study of the properties of materials on a nanoscale from previously established procedures.

## Learning Outcomes

1. Adapt to new situations.
2. Apply ethical principles and legal standards to activities in the company during work experience.
3. Be ethically committed.
4. Communicate orally and in writing in one's own language.
5. Correctly apply concepts and theories related with nanoscience and nanotechnology to the professional world
6. Integrate acquired knowledge and skills to solve problems in the professional field.
7. Manage the organisation and planning of tasks.
8. Obtain, manage, analyse, synthesise and present information, including the use of digital and computerised media.
9. Operate with a certain degree of autonomy.
10. Produce a summary in English of the work done.
11. Produce an explanatory report of the results obtained in a professional study in fields related with nanoscience and nanotechnology.
12. Properly handle reagents and chemistry products.
13. Reason in a critical manner
14. Recognise the legal standards for activities in the company during work experience.
15. Resolve problems and make decisions.
16. Show initiative and an enterprising spirit.
17. Show motivation for quality.
18. Show sensitivity for environmental issues.
19. Show the necessary skill to develop synthesis and characterisation studies of materials in the professional field
20. Show the necessary skill to handle the instruments required for professional work in fields related with nanoscience and nanotechnology.
21. Work correctly with the formulas, chemical equations and magnitudes used in chemistry.

## Content

The content will vary depending on the nature of the company where the internship takes place.

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
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Type: Directed			
guided activities	40	1.6	1, 5, 6, 12, 3, 8, 14, 21

preparation of the report and the oral presentation	18	0.72	4, 17, 13, 11, 10
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Type: Supervised			
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supervised activities	61	2.44	1, 5, 2, 19, 20, 7, 6, 12, 3, 18, 13, 14, 15, 21
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Type: Autonomous			
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self-work	180	7.2	1, 5, 2, 16, 19, 20, 17, 7, 6, 12, 3, 18, 8, 9, 13, 14, 15, 21
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Internships can be completed in either of the two semesters of the course or during the summer period, but they must be evaluated within the academic year in which the student is enrolled.

Internships can only be carried out in companies, spin-offs, start-ups, technology centers, large-scale facilities such as the ALBA Synchrotron, the Barcelona Supercomputing Center, or the cleanroom of IMB-CNM, and technical divisions of universities or research centers. Internships cannot be conducted in research groups from universities or research centers. However, if the internship is scheduled abroad, it may be carried out in research groups from universities or research centers. In such a case, please contact the subject coordinator and the "Servei d'Ocupabilitat" of the UAB, as the latter will handle part of the documentation.

Duration of the internship: between 280 and 300 hours.

Companies may offer remuneration for internships, but this is optional.

Students are responsible for finding a company in which to carry out the internship. A list of companies potentially interested in hosting students can be found on the virtual campus (i.e., *a l'apartat de "Pràctiques Externes" de l'espai global de comunicació del grau en Nanociència i Nanotecnologia*). If the company where you would like to do the internship does not appear on that list, please contact the coordinator to discuss its suitability.

Before starting the internship, students must enroll in the subject. To do this, students must submit the "pre-agreement" document, which can be found both on the virtual campus. This "pre-agreement" is an internal university document and does not constitute the final agreement with the host company. It must be completed by the student and the host company. The required information includes details about the student, the host organization, the name of the external tutor, and the agreed work plan. Once completed, the document must be sent to the coordinator (in editable format) for review. After revision and any necessary corrections, the coordinator will sign it. Then, the student must send it to "Gestió Acadèmica" and initiate the enrollment process, which also includes arranging student insurance and finalizing the agreement between the university and the host organization. This registration process is relatively quick, typically taking only a few days. To expedite the process, students are advised to activate their electronic signature in advance.

All relevant information and documents are available on the virtual campus.

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
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oral presentation	25%	1	0.04	4, 17, 13
tutor evaluation	40%	0	0	1, 5, 2, 16, 19, 20, 17, 7, 6, 12, 3, 18, 8, 9, 13, 14, 15, 21
written report	35%	0	0	4, 8, 13, 11, 10

There are three evaluation periods:

- (i) January/February for students enrolled during the first semester.
- (ii) June/July for students enrolled during the second semester.
- (iii) September for students completing the internship over the summer.

Before starting the internship, the coordinator will contact the student's external tutor to provide him/her with the evaluation template for assessing the student.

Upon completion of the internship, the student must prepare:

- (a) A written report using the template available on the virtual campus.
- (b) Oral presentation, following the guidelines that can also be found on the virtual campus.

The final grade will be based on three components:

- The evaluation by the external tutor: 40%
- The written report: 35%
- The oral presentation: 25%

As the evaluation period approaches, the course coordinator will set the deadlines for submitting the final report and the external tutor's evaluation. During the evaluation period, the coordinator will inform students of the date and time of the oral presentations, which will be held online via TEAMS.

The evaluation will focus on the student's ability to integrate into the work environment, their adaptability, organizational skills, and the tasks performed. Students are advised to be precise and rigorous when presenting the scientific and technical aspects, while keeping the content concise.

## Bibliography

N/A.

## Software

N/A.

## Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

