

### Work Placement

Code: 104052  
ECTS Credits: 12

Degree	Type	Year	Semester
2502444 Chemistry	OT	4	2

### Contact

Name: Jordi Coello Bonilla  
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### 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

### Teachers

Maria Muñoz Tapia

### Prerequisites

At the time of making the request to take this course, the student must have an average equal to or greater than 5.0 in the 34 scale and 150 approved credits (among which there must be those of all subjects in the first year).

If, in addition, the student wants to complete the Final Degree Project (TFG) via internships in companies, he must have passed 2/3 of the total ECTS credits of the degree. This means 160 credits for the students of the Degree of Chemistry and 212 credits for the students of the double Degree of Physics and Chemistry.

It is necessary to have an electronic signature in order to sign the internship agreement.

Fulfilling the prerequisites does not ensure that a student can complete the internships, since the availability of companies that accept trainees varies each course. In the case of having more applications to take the subject than companies, the places will be awarded according to the criteria established in the methodology section.

### Objectives and Contextualisation

The acquisition of theoretical and experimental foundations should allow the undergraduate student to develop his professional career. The subject of External Practices (PE) has as main objective to introduce students to the professional world. Therefore, this subject aims for students to develop an activity outside the UAB facilities and to carry out practical projects in a company in the chemical sector. As an additional objective, the subject could be a way of employment for the students of the Degree, especially if they attend this subject at the end of their studies.

There are two modalities to carry out this subject:

- The conventional one, in which the student performs 300 h in a company and obtains, after the positive evaluation of the company and the tutor, the 12 credits of the subject. The number of places is limited only by the number of companies that collaborate with the subject welcoming students.
- The one that combines the subject with the Final Degree Project. In this modality the student performs 600h in the company and obtains, after the positive evaluations of the two subjects, the 12 credits of External Practices, plus the 15 of the Final Degree Project.

### Competences

- "Interpret data obtained by means of experimental measures, including the use of IT tools; identify their meaning and relate the data with appropriate chemistry, physics or biology theories."
- Adapt to new situations.
- Apply knowledge of chemistry to problem solving of a quantitative or qualitative nature in familiar and professional fields.
- Be ethically committed.
- Communicate orally and in writing in one's own language.
- Develop synthesis and analyses studies in chemistry from previously established procedures.
- Handle chemical products safely.
- Handle standard instruments and material in analytic and synthetic chemical laboratories.
- Manage, analyse and synthesise information.
- Obtain information, including by digital means.
- Operate with a certain degree of autonomy and integrate quickly in the work setting.
- Show an understanding of the basic concepts, principles, theories and facts of the different areas of chemistry.
- Show motivation for quality.
- Show sensitivity for environmental issues.
- Use IT to treat and present information.
- Use the English language properly in the field of chemistry.
- Work in a team and show concern for interpersonal relations at work.

## Learning Outcomes

1. Adapt to new situations.
2. Be ethically committed.
3. Communicate orally and in writing in one's own language.
4. Integrate acquired knowledge and skills to solve problems in the professional field.
5. Manage, analyse and synthesise information.
6. Obtain information, including by digital means.
7. Operate with a certain degree of autonomy and integrate quickly in the work setting.
8. Produce a summary in English of the work done.
9. Produce an explanatory report of the results obtained from a professional task in the field of chemistry.
10. Properly apply the concepts and theories of chemistry to the professional world.
11. Properly handle reagents and chemistry products.
12. Show motivation for quality.
13. Show sensitivity for environmental issues.
14. Show the necessary skill at handling the instruments required to work professionally in the field of chemistry.
15. Show the necessary skill to develop chemical synthesis or analysis in the professional field.
16. Use IT to treat and present information.
17. Work in a team and show concern for interpersonal relations at work.

## Content

Each one of the places where the student can take the subject has different areas of work and, therefore, the contents of the practices will depend on the selected company.

Before starting the internship period, it will be necessary for the student to have a work plan agreed with the company or institution, detailing the tasks and contents of the work that will be done. This work plan must be approved by the teacher responsible for the subject in order to start the internship.

## Methodology

The internships can be done in any of the two semesters of the course or during the summer. In any of the cases, the subject will have a minimum of 300 hours of permanence in the chosen company or institution.

Students can do internships in companies, foundations or laboratory services of the catalog available to the Chemistry Department; companies that are looking for a student or companies with which the student has made a first contact, as long as they are authorized by the teacher responsible for the subject. You cannot perform the practices in research groups of public institutions, since they do not fit the objectives of the subject.

During the months prior to the start of the internship, students must attend a mandatory information meeting that will be held in the moodle of the subject. The student will register to take the subject by filling out a form published in the moodle. At the time of registration, the student must meet the requirements to take this subject (see prerequisite section). The coordinators will publish the list of accepted students and, following the order of their academic records, taking into account the preferences of the companies and the personal circumstances of the student, they will contact each of them to agree with the company where they can perform the practices. The student will send his / her personal resume to the contact person in the company, with a presentation message, requesting an interview, where the tasks to be carried out and the period and hours of the internships will be agreed upon. If the student is accepted to do the internship, he will fill in, in collaboration with the company, the data requested in the "previous agreement form" (FPC) and send it to the coordinators of the subject, who will approve the work plan and they will assign a tutor teacher.

In case there is no agreement, the student will contact the coordinators, who will provide an alternative company if possible. In any case, it can not be guaranteed that a student is accepted by a company, since the decision on acceptance depends on the company.

Once approved the work plan and assigned a tutor, the coordinators of the subject will send the file to the Academic Management of the Faculty to write the agreement.

After drafting and signing the agreement, the Academic Management will contact the student, who will take the agreement to the company. Keep in mind that THE INTERNSHIPS CANNOT START UNTIL THE STUDENT BRINGS THE SIGNED AGREEMENT TO THE COMPANY.

Registration is in person and will be done at the time of collecting the agreement. It is compulsory to hire Supplementary Insurance.

The student must present himself to his tutor in the initial period of the stay, explaining the tasks to be performed.

The student who wants to apply for a scholarship for the same academic year in which the work will be evaluated will have to speak with the coordinators before the general enrollment period. STUDENTS WITHOUT A SCHOLARSHIP WILL BE ENROLLED AT THE TIME OF THE SIGNATURE OF THE AGREEMENT AND ALWAYS IN THE SAME ACADEMIC YEAR THAT THEY WANT TO BE EVALUATED.

Students who want to do the practices during the summer should choose between enrolling in the same academic course that corresponds in summer (and be compulsorily evaluated in September), or enroll the following year (and be evaluated in any call for the next course). In the latter case, the student must sign an enrollment commitment to begin the internship before this enrollment period is opened and hire the supplementary insurance for the time of completion of the internship prior to the registration of the subject.

Once the internship is over, the student will communicate it to the coordinators and will write a report of the PE, Its delivery will be made through the system enabled in the teaching space of the subject.

If the student has opted for the PE + TFG modality, he or she must also present a memory of their TFG that meets the requirements indicated in the section corresponding to the TFG. Its delivery will be made, analogously to the case of the PE report.

It is mandatory to consult the moodle of the subject to be updated on possible notices and meetings. In the moodle you can find all the information and all the necessary forms. The only valid email for any communication is the institutional one.

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			
Realization and drafting of a project or projects in a company of the chemical sector and writing of the corresponding report	294	11.76	1, 10, 3, 14, 15, 12, 5, 4, 11, 2, 13, 6, 7, 9, 8, 17, 16

## Assessment

The evaluation of the subject of External Practices will be carried out from two elements: evaluation by the tutor of the student in the company (40% of the grade) and the evaluation of the memory by the tutor of the student in the UAB (60% of the grade)

The first will assess:

1. Previous training and knowledge.
2. Interest, motivation and availability.
3. The ability to learn.
4. The quality of the work developed.
5. Compliance.

The second will assess:

1. The scientific and technical correction of the work carried out.
2. The formal correction (writing, spelling, syntax, good organization, etc.), as well as the presentation.

To carry out the weighted average, a minimum score of 4 out of 10 points is required, both tutor in the company and the tutor in the UAB.

If the score of the tutor in the company is less than 4, the course will have a final grade of "Fail".

If the score of the tutor in the UAB is less than 4, the course will have a grade of "Not evaluable" and the student must rewrite the report and present it at the next call of the academic year

The tutor in the UAB may conduct an interview with the student in case he considers it necessary.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Search for bibliography, analyze and process data and write a report	100%	6	0.24	1, 10, 3, 14, 15, 12, 5, 4, 11, 2, 13, 6, 7, 9, 8, 17, 16

## Bibliography

Bibliography is not suggested for this subject

## Software

No subject software is used