

Bachelor's Degree Final Project

Code: 102489

ECTS Credits: 15

2025/2026

Degree	Type	Year
Chemistry	OB	4

Contact

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Teachers

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Teaching groups languages

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

Prerequisites

The student must have passed at least 2/3 parts of the total of ECTS corresponding to the studies they are studying (160 ECTS for students of the Degree in Chemistry and 212 ECTS for students of the double Degree in Physics and Chemistry) and have all the first course passed to enroll in this subject (Academic Affairs Committee of the Faculty of Sciences of February 27, 2007).

The circuit for preparing the final year project begins with the course enrollment.

Prerequisites for the TFG modality via external internship:

The student must be enrolled in the course External Internship. This subject has the following prerequisites: At the time of making the application, to take the subject of external internships, the student must have an average equal to or greater than 5.0 in "barem 34" and 150 credits Approved (among which there must be those of all subjects of the first year).

In case you need to contact the TFG Coordination, please remember that the Coordination is different depending on whether it is through External Internships or not:

TFG Coordination: Joan Pau Bayón Rueda and Montserrat López Mesas, through the e-mail address: coordinacio.tfg.quimica@uab.cat

TFG Coordination via External Internships: Laura Masgrau and Maria Muñoz. (laura.masgrau@uab.cat o maria.muñoz@uab.cat)

Objectives and Contextualisation

OBJECTIVES OF THE TFG

The Final Project is an autonomous work based on topics related to any of the subjects or subjects of Chemistry.

The objectives of the Final Project are to deepen their own theme and / or apply and know how to convey knowledge acquired during the studies of Chemistry.

In general, the Work will incorporate both theoretical and practical aspects and a discussion.

The TFG must show the knowledge, abilities and skills achieved by the students in the Degree studies, demonstrating that they have achieved the maturity necessary to carry out the profession.

The TFG must show a certain degree of originality, either in the discussion of known results or in obtaining a new result.

OBJECTIVES OF THE METHODOLOGY MODULE OF RESEARCH WORK

Understand the significance of end-of-degree work, as research work, within the context of scientific research and its contribution to development and social progress.

Acquire a methodology for the elaboration of academic research work.

Learn to communicate and defend the results of an investigation through written memory and oral presentation.

Competences

- Be ethically committed.
- Communicate orally and in writing in one's own language.
- Develop synthesis and analyses studies in chemistry from previously established procedures.
- Learn autonomously.
- Manage, analyse and synthesise information.
- Manage the organisation and planning of tasks.
- Obtain information, including by digital means.
- Operate with a certain degree of autonomy and integrate quickly in the work setting.
- Propose creative ideas and solutions.
- Reason in a critical manner
- Resolve problems and make decisions.
- Show an understanding of the basic concepts, principles, theories and facts of the different areas of chemistry.
- Show initiative and an enterprising spirit.
- Show sensitivity for environmental issues.
- Use IT to treat and present information.
- Use the English language properly in the field of chemistry.

Learning Outcomes

1. Adequately apply chemistry concepts and theory to produce an academic or professional study in the field of chemistry.
2. Be ethically committed.
3. Communicate orally and in writing in one's own language.
4. Learn autonomously.

5. Manage, analyse and synthesise information.
6. Manage the organisation and planning of tasks.
7. Obtain information, including by digital means.
8. Operate with a certain degree of autonomy and integrate quickly in the work setting.
9. Produce a summary in English of the work done.
10. Propose and develop protocols to perform an academic or professional study in the field of chemistry.
11. Propose creative ideas and solutions.
12. Reason in a critical manner
13. Resolve problems and make decisions.
14. Show initiative and an enterprising spirit.
15. Show sensitivity for environmental issues.
16. Use IT to treat and present information.

Content

CONTENTS OF THE TFG

The final thesis may be of one of the following types:

- a. Bibliographic study: Argumented summary type 'bibliographic review' on the current situation of a concrete subject in the scope of chemistry.
- b. Disclosure: It will consist of the dissemination of a scientific topic of social interest aimed at the general public or students at non-university educational levels.
- c. Experimental project: It will consist of the development of a project in a research laboratory of some university department or research center.

Each student will make a request with priority of 7 jobs of the mentioned types, which will be chosen from a list of proposals. Apart from that, if there are students who wish to do the TFG outside of the institutions that participate in the general offer, the student may propose a topic of his own which he must justify appropriately.

Regardless of the typology, the jobs may be developed in external institutions or companies at the UAB, as an extension of the subject 'External Practices' and within the framework of mobility programs.

The work will be done individually.

The TFG work will be tutored by doctoral professors belonging to the Department of Chemistry or other Departments that teach the Degree in Chemistry. Therefore, it will be necessary for the students to have a tutor who meets these requirements in the event that the TFG is carried out in a Department/Centre of the UAB different from those mentioned or in an external institution. The TFGs that are carried out in the framework of the double Degree of Physics and Chemistry will have to have a tutor for each of the qualifications involved.

CONTENTS OF THE RESEARCH WORK METHODOLOGY MODULE

THEORY:

The TFG as research work: significance and planning.

TFG documentation process: Approach to the subject. Systematic bibliographic search in specialized databases. Preparation of bibliographies according to the style of the American Chemical Society (ACS).

The memory and oral presentation of the TFG: formal and structural aspects.

PRACTICES: Activities related to the theoretical content worked on and contextualized in the particular subject of each student's TFG.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Methodology module for research work	9	0.36	4, 3, 5, 6, 7, 10, 9, 16
Type: Supervised			
Follow-up tutorials	10	0.4	1, 14, 5, 6, 15, 10, 11, 9
Type: Autonomous			
Oral presentation and public defense	0.5	0.02	1, 3, 6, 2, 15, 11, 16
Preparation of a written memory	69	2.76	1, 3, 14, 5, 6, 2, 15, 8, 11, 12, 9, 13, 16
Reading texts and finding information	43	1.72	4, 14, 5, 6, 2, 15, 7, 8, 12, 13, 16
Study and elaboration of work	243	9.72	1, 4, 14, 5, 6, 2, 15, 7, 8, 10, 11, 12, 13

1. TFG elaboration circuit, TFG modality without External Practices

1.1. Organization chart and responsibilities

1.1.1. Tutor/supervisor/a

The supervising Tutor will be a member of the staff of the receiving center with a minimum degree of Doctor. There may be a co-tutor who will have to have a minimum degree of Bachelor's degree. The function of Tutor and/or co-tutor/supervisors will be to design and supervise the project. It will also take care of the students' schedule compliance and must issue an evaluation on the work done by the student and the learning achieved, among other criteria.

1.1.2. Academic tutor

The Academic Tutor will be responsible for monitoring the students following the guidelines indicated in the corresponding section. This tutor may participate in the correction of the TFG report.

1.1.3. The Coordination

The Coordination of the TFG modality without External Practices will be formed by one or more professors from the Department of Chemistry, UAB.

1.1.4. Evaluation committee of the TFG

The TFG Evaluation Committee will be responsible for evaluating the students' written report and oral presentation. The evaluation commissions will be appointed by the Coordination of the modality and will be constituted by two members chosen from among the teaching staff of the Department.

1.2. Enrollment

Degree student in Chemistry without External Internships:

The students will register according to the calendars established in the academic year in which they want to perform and defend the TFG. Students can enroll in one of the three different groups: groups 1, 2 and 3. Enrollment in group 1 implies that the subject will be completed and evaluated in its entirety during the 1st semester (February convocation). Enrollment in group 2 involves evaluation at the end of the 2nd semester (call in July). In the case of groups 2, the work of the TFG can be carried out both annually and only during the 2nd semester.

However, there will only be two rounds of application and job assignment: in July of the previous course (1st round of assignment) and in September immediately before the start of the course (2nd round of reassignment for students who have not requested or those who do not have work assigned). Eventually, there will be a 3rd round of reassignment in the 2nd semester.

Student of the Double Degree in Physics and Chemistry without External Practices:

For double-degree students, enrollment only applies to groups 72 (July call) and 73 (September), given that the TFG is annual and not semester-long. The assignment and reassignment shifts are the same.

1.3. Proposal and allocation of the TFG

Job proposal: Project offers for the realization of the TFG will be given in two ways:

**General Offer: Where all the projects proposed from the Department of Chemistry, other Departments and scientific-technical services of the UAB and the external research centers (ICMAB, ICN2, CNM, IBB, ALBA,

ICTA) will be registered. Prior to the beginning of each academic year, the coordination of the TFG will ask the professors who can act as tutors, proposals of topics for the realization of the works. In these proposals, the following must be indicated: the number of the tutor, the title of the work, and the typologies to which it could be assigned (see section 3, more than one typology can be specified) and the preferred semester of completion. The professors who present proposals will act as tutors for the assignments.

****Offer Free:** The Free Projects are reserved only for implementation in centers other than those participating in the General Offer. Always within the established periods, students may propose TFG projects to the coordination of the subject, in a reasoned and justified way. These projects must be different from those of the General Offer. In any case, the coordination team will assess and manage these proposals.

Dissemination of proposals: The coordination of the TFG will publish the job proposals received in the virtual space dedicated to the subject.

Assignment request: The student request for assignments will be made through an online form, which will be accessed through a link in the Degree's virtual space. In this form, up to 7 prioritized preferences from the list of jobs offered will be stated.

Work assignment: The TFG coordination will assign the projects requested in the general offer to the students taking into account their academic records (Barem 34) and the order of preferences. The result of the allocation will be made public through the virtual space. Students without assigned work in the 1st round will be assigned in the 2nd or 3rd reassignment round.

Safety seminar: All students will have to attend a theoretical safety course given by OSHA of the UAB. The students who do the TFG (experimental or computational) in the Department of Chemistry must also do the practical fire extinguishing course. The students who carry out experimental TFGs in other external research centers will have to carry out the activities programmed from the receiving center. During the theoretical safety course, a test will be taken to achieve the skills associated with risk and security in a chemical laboratory. You will have to pass it to be able to present the TFG.

Calendars: The calendars of the process deadlines will be published in the virtual space of the subject.

1.4. Realization and monitoring of the TFG

Each TFG tutor will set a date for an initial joint meeting with their tutored students in which the follow-up calendar will be defined.

This monitoring will result in evidence that the students and tutors will have to generate, following the guidelines set by the TFG coordination and that will be available in the subject's virtual space as well as on the TFE platform (tfe.uab.cat).

All papers will be collected in a memo that will have a maximum length of 30 pages and can be written in Catalan, Spanish or English using the corresponding template. All submissions must include a summary of a maximum length of one page drawn up in Catalan, Spanish and English. Those memories that are experimental will also include as an annex the questions of security described in the template.

The students will not be able to make any dissemination of the TFG on their own and will sign a confidentiality agreement agreed by the Faculty of Sciences.

1.5. Deposit of the written memories of the works

Prior to the oral defense day, on dates that will be made public with sufficient advance notice, the students must deliver their respective written memories in PDF format through the TFE platform.

1.6. Oral presentation of the TFG

The Coordination of the Chemistry Degree will set the dates for the oral defense of the TFG that will be made public through the TFE platform. Specifically, three different periods of oral defenses will be scheduled in the calendar: calls in February, July and September. In the February convocation, all the oral presentations corresponding to students enrolled in group 1 of the subject will have to be given. The students of group 2 and 72 will perform the oral defense of the work in the July call, and those of group 3 and 73 in the September call. These students must agree on this decision with their tutors and communicate it to the coordination of the TFG. A deadline will be established to request group changes. After that date, group changes will not be accepted.

For each period of oral defenses, the schedule of each student's presentations will be drawn up by the TFG coordination and published in the virtual space. The oral presentation will be carried out with the help of computer support and will last a maximum of 15 minutes. The commission that will evaluate the exhibitions will be made up of two professors. Following the oral presentation, the commission will hold a round of questions of a maximum duration of 25 minutes. The defenses will be held publicly.

2. TFG elaboration circuit, TFG modality with External Practices

2.1. Organization chart and responsibilities

2.1.1. Company tutor

The Tutor of the company will be a member of the company's staff with a minimum qualification of licenciado or graduate. His role will be to design and supervise the project. It will also take care of the student's schedule compliance and must issue an evaluation on the work done by the student and the learning achieved, among other criteria.

2.1.2. Teacher/tutor/a

The teacher/tutor will be one of the correcting teachers or a coordinating teacher of the subject External Practices. This tutor will be responsible for monitoring the students following the guidelines indicated in the corresponding section. In addition, the teaching staff will participate in the evaluation of the TFGs.

2.1.3. The Coordination

The Coordination of the TFG modality via External Practices will be formed by one or more professors, who will also be responsible for the Coordination of the subject External Practices.

2.1.4. Evaluation committee of the TFG

The TFG Evaluation Committee will be responsible for evaluating each student's written report and oral presentation. The evaluation commissions will be appointed by the Coordination of the modality and will be made up of two members chosen from among the teaching staff of the subject External Practices, one of which will be part of the coordination of the modality.

2.2. Enrollment:

For students of TFG + External Practices, registration only applies to groups 11, 12 and 13

Enrollment is in person and will be done once it has been accepted by a company and always before starting the project. Normally, you will register simultaneously for the TFG and the subject External Practices, although you can start enrolling in External Practices and, during its completion, enroll after the TFG. The student will be able to defend his work in any of the February, July or September sessions of the course in which he has enrolled. The submission and defense dates will be similar to those of the other TFGs and will be announced in the Moodle classroom well in advance.

TFG enrollment will remain open throughout the academic year. However, there will only be two rounds of application and assignment of companies that will coincide with those of External Practices. The 1st period is in October/November, with practicals beginning in the 2nd academic semester. The second period is in March/April, the beginning of the practices can be in summer (beginning of July) or in the 1st semester of the following academic year.

2.3. Application and allocation of the TFG

The assignment and request mechanism is the same as that of the subject of External Practices.

2.4. Realization and monitoring of the TFG

Since this TFG modality is linked to the completion of the PE, in the student's mandatory meeting with the UAB tutor to discuss the PE, the student will inform him/her that he/she will do TFG+PE. The student will have, obligatorily, a new meeting with his UAB tutor during the writing of the memo, in which they will discuss the draft of the document. The tutor of the company will monitor the student according to the agreement.

The TFG report will have a limited extension, which will be indicated in the template that exists in the moodle of the subject, and may be written in Catalan, Spanish or English using the corresponding template found in the moodle of the subject. All submissions must include a summary of a maximum length of one page drawn up in each of the three languages: Catalan, Spanish and English.

2.5. Deposit of the written memories of the works

Prior to the day of the oral defense, on dates that will be made public sufficiently in advance, the student must deliver a copy of the report to the work enabled in the moodle of the subject "External Practices (PE) and TFG via PE".

2.6. Oral presentation of the TFG

The Coordination will fix the dates for the oral defense of the TFG that will be made public before the registration period for each academic year. Specifically, three different periods of oral defenses will be scheduled in the calendar: calls in February, July and September. For each period of oral defenses, the schedule of each student's presentations will be prepared by the Coordination and published in the Moodle classroom in advance. In the oral presentation, the student will have to use computer support and will have a maximum duration of 15 minutes. The Commission that will evaluate the presentations will be made up of two professors from the subject External Practices. Following the oral presentation, the commission will take a question turn. The oral presentation and the question-and-answer session will be held publicly, although when one of the involved parties requests it, it can be held behind closed doors and with the signature of a confidentiality agreement by the court.

3. Methodology of the RESEARCH WORK METHODOLOGY module

The module is mandatory for all students regardless of the type of TFG they take.

The module consists of 9 hours of class: 1 session of 1 hour and 4 sessions of 2 hours.

The sessions include a first part in which the theoretical content is presented and a second part aimed at its practical application.

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
Methodology module for research work	10	0	0	3, 5, 7, 10, 9
Note of the oral presentation and defense	30	0.5	0.02	3, 14, 2, 15, 11, 12, 16
Note of the report of the end of degree project	30	0	0	1, 3, 14, 5, 6, 2, 15, 7, 10, 11, 12, 9, 13, 16
Note of the tracking	30	0	0	1, 4, 14, 5, 6, 2, 15, 7, 8, 10, 11, 12, 13, 16

TFG ASSESSMENT:

1) TFG modality without External Practices:

The final grade will consist of the following contributions:

Note Tutor/Supervisor/a: They will evaluate the work done and the skills acquired based on the follow-up carried out. As a result, each tutor must write an evaluation report of the student that must be delivered to the coordination of the TFG via the TFE tool of a supervising tutor, a joint report will be made. The faculty Tutor/supervisor will have rubrics for the evaluation and forms of the student's portfolio, with the aim of establishing a unified frame of reference that allows a transparent evaluation.

Note Evaluation Committee (Tribunal): Based on the evaluation of the written reports and oral defenses, the evaluation committees will judge the transversal skills acquired, the content, approach, development and degree of difficulty of the work carried out and the quality of the presentation and defense carried out. TFG. This report must contain a memory note for the work and an oral defense note, each of which will be equivalent to 30% of the final grade of the subject.

Note Module Methodology of Research Work: This part will contribute 10% to the final grade. See module evaluation section.

Based on the previous grades, the TFG Coordination will calculate the final grade of the subject and make it public in the virtual space (Moodle). In addition, it will select a number of works among those with the best qualification in order to grant honorary registrations.

Students who do not complete the evidence of the follow-up process will not be able to present the TFG and will be classified as "non-evaluable". TFG (see below the Plagiarism section). In any of these cases, this will entail a new registration and completing and/or restarting the TFG preparation circuit in the next school year.

2) TFG modality with External Practices:

The evaluation of the students' TFG will be carried out jointly by their Tutor in the company and the Evaluation Committee. It will include the grade of the research methodology module, which will be equivalent to 10% of the final grade of the subject.

Tutor/a in the company: He will issue a report/evaluation based on the follow-up of the student, with a grade that will be equivalent to 30% of the final grade of the subject.

Evaluation Committee: Through the written report and the oral presentation, the Committee will evaluate the transversal skills acquired, the content, approach, development and degree of difficulty of the work carried out, as well as the quality of the presentation and defense of the work in response to the questions of the Committee. As a result of this evaluation, the Commission will prepare a memory report of the work (30% of the final mark of the subject) and a mark of the presentation and the oral defense (30% of the final mark of the subject).

3) TFG modalities with or without External Practices:

To achieve the weighted average, a minimum score of 4 out of 10 points is required, both from the Tutor supervisor or Tutor in the company and from the Evaluation Committee (Tribunal), as well as from the research methodology module.

If any of the grades of Tutor/a supervisor/a Tutor/a Tutor/a in the company as of the methodology module of research work is less than 4, the subject will have a final grade of 4.0 points out of 10 and will correspond to "Suspense".

According to the UAB Academic Regulations (Art. 261, section 1) regarding recovery: The evaluation process must always include recovery systems, except for external internships, end-of-study projects, and subjects that, due to their eminently practical nature, do not allow it.

4) Plagiarism:

Students must keep in mind that it is not allowed to use generative artificial intelligence tools (such as ChatGPT, Copilot, Gemini, etc.) for the preparation of the Final Degree Thesis. The content of the work must be original and the result of the student's personal effort. The use of these tools can be considered a violation of the academic regulations on authorship and can lead to disciplinary consequences. The students must sign a declaration of honesty in the first evidence (Evidence 0) and in this way they will declare themselves the sole author of their TFG.

For an efficient academic follow-up of the works, the traceability of the data and the referenced sources must be checked. Therefore, the use of Artificial Intelligence tools will not be allowed in the drafting of the TFG's report. In cases such as the use of AI as a text corrector, search engine and bibliographic reference formatter, yes it will be allowed.

It will be considered plagiarism (<http://www.plagiarism.org/>):

presenting someone else's work as one's own

adopt words or ideas of other authors without due recognition (that is, without quoting)

Do not use quotation marks in a literal quote

give incorrect information about the true source of a quote

the paraphrase of a source without mentioning the source (that is, without citing)

abusive paraphrasing, even if the source is mentioned.

Cases of plagiarism of the work will result in a grade of "Suspension" with a grade of 0. This will result in a new registration and completing and/or restarting the TFG processing circuit.

5) EVALUATION Research Work Methodology Module

It follows a continuous evaluation system that includes the following concepts, all of which are mandatory:

Attendance (20%): Unexcused absences will be penalized with 1 point.

Practicals (40%): Non-compliance (non-performance, non-completion and/or untimely delivery) will be penalized with 1 point.

Exam (40%): It will be held in the last session. It includes alternative answer and/or short essay questions on the theoretical and practical content covered during the course.

To be able to average with the rest of the grades in the TFG subject, it is necessary to obtain, in the module, a minimum final grade of 4 points.

Reevaluation: People who, having fulfilled the requirements of the continuous evaluation, do not obtain the minimum qualification required (4 points) may opt for a reevaluation. This will consist of a single exam. The grade obtained in this test will constitute the final grade of the module and may not exceed 4 points.

Bibliography

The basic bibliography will be suggested by the supervisor of each TFG according to the topics to work with, regardless of the bibliographical research that the student does.

Software

The subject does not have any explicitly recommended software

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.

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	1	Catalan	first semester	morning-mixed
(PLAB) Practical laboratories	2	Catalan	first semester	afternoon
(PLAB) Practical laboratories	3	Catalan	first semester	morning-mixed
(PLAB) Practical laboratories	4	Catalan	second semester	morning-mixed
(PLAB) Practical laboratories	5	Catalan	second semester	afternoon