

**COURSE DATA****DATA SUBJECT****Code:** 34212**Name:** External internships**Cycle:** Undergraduate Studies**ECTS Credits:** 6**Academic year:** 2026-27**STUDY (S)**

Degree	Center	Acad. year	Period
1110 - Degree in Chemistry	Facultat de Química	4	Indefinite (Individuals)

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1110 - Degree in Chemistry	External internships	INTERNSHIPS

**COORDINATION**

MONLEON VENTURA ALICIA

**SUMMARY**

Internships is an optional subject worth 6 ECTS credits scheduled to be taken during the 8th semester (year 4) of the Degree in Chemistry.

Internships primarily aim to enable students to apply and supplement the knowledge acquired during their academic training and to promote their acquisition of skills that prepare them for the exercise of professional activities, facilitate their employability and encourage their entrepreneurial capacity.

Internships must be defined in a training project according to one of the pre-established models and which specifies the educational goals and tasks that the student must pursue during his or her stay at the company or institution. The training project should be established by agreement between tutors, either on a proposal from the collaborating institution or from the University of Valencia. Also, the contents of internships must be defined so as to ensure the direct relationship between the skills to be acquired and the studies completed.

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

**1110 - Degree in Chemistry**

Obligation to have previously passed the subject(s)

34183 - General Chemistry I  
34184 - General Chemistry II  
34185 - Chemistry laboratory I  
34186 - Chemistry laboratory II  
34187 - Mathematics I  
34188 - Mathematics II  
34189 - Physics I  
34190 - Physics II  
34191 - Biology  
34192 - Informatics for Chemistry  
34193 - Physical Chemistry I  
34196 - Physical Chemistry Laboratory I  
34199 - Inorganic Chemistry II  
34201 - Inorganic Chemistry Laboratory I  
34229 - Analytical Chemistry II  
34231 - Analytical Chemistry Laboratory I  
36450 - Analytical Chemistry I  
36452 - Inorganic Chemistry I  
36453 - Organic Chemistry I  
36454 - Organic Chemistry II  
36455 - Organic Chemistry Laboratory I

**OTHER REQUIREMENTS**

This course aims to supplement and apply fundamental knowledge acquired by students during their academic training. Therefore, to be allowed to take this subject, students must have passed all subjects in year 1 and year 2, and at least 150 ECTS credits in core and compulsory subjects.

**COMPETENCES / LEARNING OUTCOMES****1108 -**

Acquire a permanent sensitivity to quality, the environment, sustainable development and the prevention of occupational hazards.

Demonstrate ability to work in teams both in interdisciplinary teams and in an international context.

Demonstrate a commitment to ethics, equality values and social responsibility as a citizen and as a professional.

Demonstrate the ability to adapt to new situations.

Develop sustainable and environmentally friendly methods.

Evaluate, interpret and synthesise chemical data and information.

Express oneself correctly, both orally and in writing, in any of the official languages of the Valencian Community.

Have basic skills in the use of information and communication technology and properly manage the information obtained.



Interpret data from observations and measurements in the laboratory in terms of their significance and the theories that underpin them.

Prepare reports, surveys and industrial and environmental projects in the field of chemistry.

Recognise and evaluate chemical processes in daily life.

Relate theory and experimentation.

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.

Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

### **1110 - Degree in Chemistry**

Act autonomously in learning, making informed decisions in different contexts, forming judgements based on experimentation and analysis, and transferring knowledge to new situations.

At the end of the course, the student will be able to identify chemical processes in everyday life.

At the end of the course, the student will be able to implement sustainable and environmentally friendly methodologies.

At the end of the course, the student will be able to prepare reports, expert assessments and industrial and environmental projects in the field of chemistry.

At the end of the course, the student will be able to relate theory and experimentation.

Collaborate effectively in teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Communicate effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

Contribute to the design, development and implementation of solutions that address social needs, taking the Sustainable Development Goals as a reference.

Demonstrate critical and self-critical reasoning within the field of study, considering aspects such as professional ethics, moral values and the social implications of the different activities undertaken.

Express oneself correctly, both orally and in writing, in any of the official languages of the Valencian



Community.

Propose creative and innovative solutions to complex situations or problems within the field of study, in order to respond to diverse professional and social needs.

Understand and recognise, from within the discipline, inequalities based on sex and gender in society; integrate different needs and preferences related to sex and gender into problem-solving and solution design.

## DESCRIPTION OF CONTENTS

### 0. Practices realized in companies

The course involves conducting independent and individual work, under the supervision of a company tutor and the tutoring of an academic tutor, in accordance with the training plan delivered to students at the start of their internships. Work placements will take place at a partner institution in accordance with the University of Valencia Internship Regulations.

The company tutor must have a degree in Chemistry or a related qualification, or at least four years of experience in the chemical sector.

The following examples of training programmes correspond to standard models of some traineeships and can serve as a guide for the elaboration of the specific proposals for each offer.

### 1. Quality laboratories and/or analytical laboratories

Examples of activities:

- Research and organisation of regulatory documentation.
- Sample taking
- Treatment, conservation and conditioning of samples.
- Use of physico-chemical characterisation techniques (HPLC, IC-ICP / MS, FTIR, ...).
- Data processing.
- Preparation of internal reports.



## **2. R&D Laboratories**

Examples of activities:

- Bibliographic review of a topic.
- Organisation of bibliographic information in a team (reference management software).
- Design of experiments.
- Chemical synthesis.
- Analysis and characterisation.
- Processing and presentation of experimental data: Preparation of technical tables and graphs.

## **3. Consultancies (hygiene, environmental safety, laboratory homologation...).**

Examples of activities:

- Research and organisation of normative documentation.
- Field work (visits, sampling, etc.).
- Supervision of procedures and application of regulations (labour, environmental, ...).
- Application of REACH legislation
- Preparation of reports.

## **4. Production plant (chemical processes)**

Examples of activities:

- Training on the production process
- Control of raw materials.
- Production planning.
- Control of production parameters.
- Verification of process conditions.
- Data processing and presentation: Preparation of technical reports.

## **5. Data processing/quality control.**

Examples of activities:

- Implementation of an in-plant data retrieval system (implementation of sensors, actuators, ...).



- Data collection and data formatting (development and management of databases).
- Data processing (multivariate analysis, Taguchi method, etc. )
- Analysis of experimental data and decision-making.
- Elaboration and/or supervision of quality assurance protocols.

## 6. Training institutions.

Examples of activities:

- Collaboration in the development of teaching materials
- Development of laboratory practices
- Support in extracurricular activities related to the field of science and technology.

## 7. Work experience in UVEG laboratories.

[https://www.uv.es/graus/normatives/Reglament\\_PE\\_ACGUV.pdf](https://www.uv.es/graus/normatives/Reglament_PE_ACGUV.pdf)

### Article 18. INTERNSHIPS AT THE UNIVERSITAT DE VALÈNCIA

External work placement offers made to University of Valencia departments must always be proposed by the head of the centre, department, institute or service in which they are carried out. It is necessary to specify the degree to which they are addressed and to include all the information required in the offer of external placements.

The Centre's Internship Committee can establish specific training projects, activities and requirements for the internships of a degree that are carried out at the Universitat de València.

Examples of activities:

- Collaboration in the bibliographic review of a topic.
- Organisation of bibliographic information in a team (reference management software).
- Chemical synthesis.
- Computational design
- Analytical techniques
- Characterisation of materials
- Processing and presentation of experimental data: Preparation of technical tables and graphs.

## WORKLOAD

## PRESENCIAL ACTIVITIES



<b>Activity</b>	<b>Hours</b>
Attendance at the internship centre	138,00
Attendance at supplementary activities	0,00
Monitoring and tutoring of internships	0,00
<b>Total hours</b>	<b>138,00</b>

### NON PRESENCIAL ACTIVITIES

<b>Activity</b>	<b>Hours</b>
Independent study and work	12,00
Preparation of supplementary reports	0,00
Preparation of the internship report and evaluation of the internship	0,00
<b>Total hours</b>	<b>12,00</b>

### TEACHING METHODOLOGY

Each student will be assigned a company tutor and an academic tutor. The company tutor will be assigned by the collaborating entity and the academic tutor will be assigned by the Commission of External Internships of the center, on the proposal of the Coordinator of External Internships of the center. Both tutors will coordinate the development of the activities established in the formative project and will be in contact to resolve any doubt or problematic situation.

It will be the mission of the company tutor to provide the student with the specifications of the work to be done and to advise him on everything he deems appropriate for carrying out the internship.

The academic tutors, in a meeting that will take place before the start of the internship, will be in charge of explaining to the students the evaluation criteria and preparation of the report and also, where appropriate, of resolving any incident that the student communicates in the development of the practices.

At the end of the concerted internship period, the student will deliver the INTERNSHIP REPORT to the University tutor, which consists of two independent documents:

- Activities report, in which the work carried out in practice is described. This part of the report must contain the approval of the company tutor.
- Evaluation report of the internship by the student which, where appropriate, may take the form of a personalized on-line form.

For the writing of the report, the models available in the Virtual Classroom of the subject will be used. Both documents contain a declaration of responsibility, to be signed electronically, about the veracity and confidentiality of the data and information therein.

For the evaluation of the report, the students must upload two documents in pdf format to the corresponding task in the group's Virtual Classroom before the date indicated in the course schedule.

If the signatures of the report were not digital, in addition to uploading the files to the Virtual Classroom in



pdf format, the students will give the academic tutor a paper copy with the signatures.

## EVALUATION

### FIRST CALL

Students must make a final report of the stay in the company taking into account the recommendations contained in article 22 of the Regulation of External Practices of the University of Valencia, as described in the teaching methodology section. This report will be adjusted in formal aspects to the template published in the Virtual Classroom of the subject.

The company tutor must prepare a report assessing different aspects such as: organization, initiative, interest, interpretation and evaluation of data, punctuality, integration in the work group and assimilation of new technologies, among other aspects. Such report is sent to the Internship management agency (ADEIT), which makes it available to the corresponding academic tutor. The academic tutor will evaluate the quality of the memory presented by the student in accordance with the rubric published in the Virtual Classroom of the subject.

The final grade obtained by the student will correspond to the sum of the following percentages: 40% grade from the external tutor, 40% grade from the final report, 10% for the student's participation in employment forums organized on campus and other duly justified complementary activities, such as attendance at short courses, seminars and conferences related to the practice. Justified attendance at a minimum of three activities will be necessary to obtain the maximum score for this item. The remaining 10% corresponds to the direct qualification of the academic tutor, in which the degree of participation and follow-up of the meetings with the tutor, the presentation of partial reports and the fulfillment of deadlines and deliveries will be evaluated.

The subject is considered approved if the weighted sum of all the evaluation items exceeds five points, provided that the report score exceeds five points.

The qualification will be made officially in an evaluation record for each group of the subject, signed by the President of the External Internship Commission or the Faculty's External Internship Coordinator.



The hours of attendance at the assigned internship position are mandatory and non-recoverable, in accordance with the internship contract signed by all parties.

## SECOND CALL

The evaluation will be carried out in the same way as in the first call.

Regarding attendance (non-recoverable activity), failure to comply with the hours stipulated in the contract will prevent passing the subject except if ADEIT renegotiates a new contract with the company that allows the student to carry out the internship hours stipulated in the study plan before the end of the evaluation period.

## Final warning

Copying or plagiarism of any assignment that is part of the evaluation will make it impossible to pass the course, and the student will be subject to the appropriate disciplinary procedures.

Please note that, according to Article 13 d) of the University Student Statute (RD 1791/2010, December 30), *"it is the duty of a student to refrain from using or cooperating in fraudulent procedures in evaluation tests, in the work performed or in official University documents"*.

## REFERENCES

- REGLAMENT DE PRÀCTIQUES EXTERNES DE LA UNIVERSITAT DE VALÈNCIA Aprovat en Consell de Govern de 26 de juny de 2012. ACGUV 131/2012
- Real Decreto 592/2014, de 11 de julio, por el que se regulan las prácticas académicas externas de los estudiantes universitarios.