

**COURSE DATA****Data Subject**

<b>Code</b>	42942
<b>Name</b>	External internships
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	7.0
<b>Academic year</b>	2022 - 2023

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
2109 - Master's Degree in Experimental Techniques in Chemistry	Faculty of Chemistry	1	Annual

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
2109 - Master's Degree in Experimental Techniques in Chemistry	4 - External internships	External Practice

**Coordination**

<b>Name</b>	<b>Department</b>
ESTEVE TURRILLAS, FRANCESC ALBERT	310 - Analytical Chemistry
MOLINS LEGUA, CARMEN	310 - Analytical Chemistry
ROS LIS, JOSE VICENTE	320 - Inorganic Chemistry

**SUMMARY**

Subject dedicated to internships in companies or agencies of the chemical industry or related, selected by the Academic Coordinating Commission of the Master. The students perform tasks in the laboratory using the studied experimental techniques, in order to enable them to implement their knowledge to the resolution of the real problems of the company or organization.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

Prior knowledge of chemistry and experimental work in the laboratory of chemistry taught in the degrees indicated in the recommended income profile for the student of the master's degree are required.

## COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

### 2109 - Master's Degree in Experimental Techniques in Chemistry

- Saber aplicar los conocimientos adquiridos y ser capaces de resolver problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio.
- Poseer las habilidades de aprendizaje que les permitan continuar estudiando de un modo que habrá de ser en gran medida autodirigido o autónomo.
- Ser capaces de integrar conocimientos y enfrentarse a la complejidad de formular juicios a partir de una información que, siendo incompleta o limitada, incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios.
- Saber comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades.
- To acquire basic skills to develop laboratory work in biomedical research.
- Be able to make quick and effective decisions in professional or research practice.
- Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Realizar las labores propias de su profesión, tanto en empresas privadas como en organismos públicos, llevando a cabo estudios basados en el uso de técnicas experimentales, en distintos ámbitos tales como: medioambiental, agroalimentario, sanitario (farmacéutico y clínico), cosmético y en general de la industria del sector químico y afines.
- Realizar estudios relacionados con el análisis y/o la caracterización de sustancias químicas tales como: control de calidad, diseño de protocolos de trabajo para laboratorios, diseño e implementación de procesos de acreditación y validación, diseño y desarrollo de proyectos I+D+I, emisión de informes, certificaciones y/o dictámenes, etc.



- Ser capaces de planificar y gestionar los recursos disponibles de un laboratorio químico, teniendo en cuenta los principios básicos de la calidad, prevención de riesgos, seguridad y sostenibilidad.
- Seleccionar la instrumentación química comercializada apropiada para el estudio a arealizar y de aplicar sus conocimientos para utilizarla de manera correcta.

## **LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)**

Listed here are the results of learning of the subject matter, due to the fact that consists of only one subject, coincide with the specific objectives to achieve in the teaching-learning process of the subject.

At the end of the teaching-learning process the learner will be able to:

1. Work at a company or organization related to the chemical industry or related fields, in accordance with its planning and needs
2. Use the scientific data bases, abstracts, full text articles, documentation, etc. , required for initiating and conducting a particular study
3. Select and use properly the advanced methods of sample preparation and analytical technique most appropriate for a specific study
4. Working in the field of application required for a particular study, with the maximum safety to the operator and the environment
5. Apply the methods of calibration and data processing more appropriate to a particular study
6. Develop a clear and concise memory of the results obtained from a job
7. Explain in a clear and concise manner the conclusions of a work and the implications of interest to the company or agency that has been developed
8. Regarding the Sustainable Development Goals (SDGs), it is expected that students will be able to know in this subject how to apply the knowledge learned to guarantee an inclusive, equitable, and quality education and promote learning opportunities for everyone (SDG 4), to acquire a special sensitivity for sustainable management of water (SDG 6), raw materials and energy sources (SDG 7), as well as for an environmentally friendly and sustainable development (SDGs 11 , 12, 13, 14 and 15), in addition to being able to design, select and/or develop efficient products, chemical processes, and analytical methodologies (SDG 7) that minimize their impact on the environment (SDGs 14 and 15), using alternative raw materials and reducing wastes (SDG 11).

## **DESCRIPTION OF CONTENTS**

**1. Realization of a work proposed by the company or institution where the student will be integrated to carry it out.**

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Laboratory practices	70,00	100
Development of individual work	17,50	0
Internship	156,00	0
<b>TOTAL</b>	<b>243,50</b>	

**TEACHING METHODOLOGY**

Students will carry out the work of external practices in a company or agency, and developing a memory of it.

The management of the External Practices is provided by the service ADEIT of the UV, which makes the organization always under the supervision of the Academic Coordinating Commission of the master. A list of the companies of the chemical sector and related, selected by the academic Coordination Commission, as well as the characteristics specified by each one of them is offered to the students. The students do the choice depending on your interests.

Students will have two Tutors:

- Prof. Tutor at the University (the same of the Master project)
- Tutor in the Company, which will be assigned by the Company.

Prof. Tutor at the University receives direct information from the student. This lets you know if the expectations arising from the agreement with the company are satisfied in order to act and solve any kind of difficulty, conflict, etc. In addition, at the end of practices each student fills out a form that will survey about the development of the practices. This enables the academic Coordinating Commission make further study of the quality offered by partner companies, that is of interest to the Organization of the next year.

**EVALUATION**

Evaluable activities by the Tutor of company through the realization of the work (Tutor of company report)

Competences to evaluate: CB6, CB7, CB8, CG1, CG2, CG3, CE1, CE2 y CE3

**WEIGHT 50 %**

Presented memory (Tutor of University report)



Competences to evaluate: CB9 CB10 y CE7

**WEIGHT 50 %**

