UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: INTRODUCTION TO CHEMISTRY RESEARCH
Code: 311125
Type: ELECTIVE
ECTS credits: 12
Degree: 2366 - MASTER DEGREE PROGRAMME IN CHEMICAL
Academic year: 2023-24
Center: 1 - FACULTY OF SCIENCE AND CHEMICAL TECHNOLOGY
Group(s): 20
Year: 1
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **FERNANDO CARRILLO HERMOSILLA** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
SAN ALBERTO MAGNO	QUÍMICA INORG., ORG., Y BIOQ.	3417	fernando.carrillo@uclm.es	Mon, Wed and Tue from 13:00 to 14:00

Lecturer: **ANA MARIA GARCÍA FERNÁNDEZ** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
			AnaM.Garcia@uclm.es	

Lecturer: **MARIA DEL PILAR PRIETO NUÑEZ-POLO** - Group(s): **20**

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San Alberto Magno	QUÍMICA INORG., ORG., Y BIOQ.	+34926052615	mariapilar.prieto@uclm.es	

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course

Course competences

Code	Description
CB06	Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
CB09	Students are able to communicate their conclusions and the ultimate knowledge and rationale behind them to specialist and non-specialist audiences in a clear and unambiguous way.
CB10	Students possess the learning skills that will enable them to continue studying in a largely self-directed or autonomous way.
CE01	Apply the principles of metrology for the development of advanced quality research in the field of chemistry, as well as its integration in the management systems of laboratories that comply with the requirements of international standards.
CE04	Evaluate the usefulness of separation, analysis and structural determination techniques for joint application in problem solving, and be skilled in the use of such techniques in both research and routine laboratories applying methods of organic and inorganic analysis and/or synthesis.
CE07	To learn about the possibilities offered by new analytical methodologies in different fields of application, as well as the current trends in analytical chemistry of interest for the development of R+D+I or its implementation in specialised control laboratories.
CE09	To develop experiments that serve as a basis for R+D+I activities in the field of chemistry, facilitating their transfer to the productive world by means of new standardised work procedures validated for routine and/or control laboratories.
CG01	Transfer the concepts and fundamentals of chemistry in the context of scientific research and/or in the specialised profession of the chemist.
CG02	To achieve advanced training in the fundamentals and potential of the instrumental techniques available in chemistry for the development of scientific research and/or application in specialised control laboratories.
CG03	To achieve advanced training in the management and handling of experimental techniques and procedures in the chemical laboratory.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Acquire skills in the elaboration, presentation, dissemination and discussion of research results.

Acquire the criteria for the appropriate selection of instrumental techniques and working tools to be able to develop research processes in chemistry.

To know how to search and handle scientific bibliography for the search and design of new experimental procedures for research projects.

Knowing how to strategically process data and interpret results involving advanced tools of metrology, chemometrics and qualimetry.

6. Units / Contents

No units added

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures		0.2	5	Y	Y	
Class Attendance (practical) [ON-SITE]	Practical or hands-on activities		7.2	180	Y	N	
Study and Exam Preparation [OFF-SITE]	Self-study		1.52	38	Y	N	
Analysis of articles and reviews [OFF-SITE]	Reading and Analysis of Reviews and Articles		1.2	30	Y	N	
Project or Topic Presentations [ON-SITE]	Individual presentation of projects and reports		0.4	10	Y	Y	
On-line Activities [OFF-SITE]	Self-study		0.4	10	Y	N	
Final test [ON-SITE]	Assessment tests		0.08	2	Y	Y	
Individual tutoring sessions [ON-SITE]	Guided or supervised work		1	25	Y	N	
		Total:	**12**	**300**			
		Total credits of in-class work: 8.88					**Total class time hours: 222**
		Total credits of out of class work: 3.12					**Total hours of out of class work: 78**

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Oral presentations assessment	40.00%	40.00%	
Final test	40.00%	40.00%	
Self Evaluation and Co-evaluation	20.00%	20.00%	
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates

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10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description