Teaching Guide					
Identifying Data					2020/21
Subject (*)	Practical Professional Training			Code	610509138
Study programme	Mestrado Universitario en Investigación Química e Química Industrial (Plan 2020)				
Descriptors					
Cycle	Period	Year		Type	Credits
Official Master's Degree	Yearly	First		Optional	6
Language	Spanish				
Teaching method	Face-to-face				
Prerequisites					
Department	Química				
Coordinador			E-mail		
Lecturers	Fernandez Sanchez, Jesus Jose		E-mail	jesus.fernandezs@udc.es	
Web					
General description	A materia realizarase en empresas ou centros de tecnoloxía cunha actividade relacionada cos temas da especialidade de Química e Economía Industrial. A natureza destas prácticas terá como obxectivo adquirir unha aprendizaxe práctica no mundo dos negocios, antes da conclusión da tese de máster na empresa				
Contingency plan	1. Modifications to the contents 2. Methodologies *Teaching methodologies that are maintained *Teaching methodologies that are modified 3. Mechanisms for personalized attention to students 4. Modifications in the evaluation *Evaluation observations: 5. Modifications to the bibliography or webgraphy				

Study programme competences	
Code	Study programme competences
A3	Innovate in the methods of synthesis and chemical analysis related to the different areas of chemistry
A5	Properly assess risks and environmental and socioeconomic impacts associated with special chemicals
A7	Operate with advanced instrumentation for chemical analysis and structural determination.
A8	Analyze and use the data obtained independently in complex laboratory experiments and relating them with the chemical, physical or biological appropriate techniques, including the use of primary literature sources
B2	Students should apply their knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
B3	Students should be able to integrate knowledge and handle complexity, and formulate judgments based on information that was incomplete or limited, include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
B4	Students should be able to communicate their conclusions, and the knowledge and the reasons that support them to specialists and non-specialists in a clear and unambiguous manner
B5	Students must possess learning skills to allow them to continue studying in a way that will have to be largely self-directed or autonomous.
B6	Innovate in the different areas of chemistry, demonstrating initiative and entrepreneurship
B8	Evaluate responsibility in the management of information and knowledge in the field of Industrial Chemistry and Chemical Research

B9	Demonstrate ability to analyze, describe, organize, plan and manage projects
B10	Use of scientific terminology in English to explain the experimental results in the context of the chemical profession
B11	Apply correctly the new technologies to gather and organize the information to solve problems in the professional activity.
B12	Being able to work in a team and adapt to multidisciplinary teams.
C1	CT1 - Elaborar, escribir e defender publicamente informes de carácter científico e técnico
C2	CT2 - Traballar en equipo e adaptarse a equipos multidisciplinares.
C3	CT3 - Traballar con autonomía e eficiencia na práctica diaria da investigación ou da actividade profesional.
C4	CT4 - Apreciar o valor da calidade e mellora continua, actuando con rigor, responsabilidade e ética profesional.
C5	CT5 - Demostrar unha actitude de respecto polas opinións, valores, comportamentos e prácticas doutros

Learning outcomes			
Learning outcomes	Study programme competences		
Traballar con soltura cos métodos relacionados coas diferentes áreas da química	AC5 AC7 AC8	BC8 BC11	CC2 CC4
Traballar con instrumentación química avanzada de análise química determinación estrutural	AC5 AC7 AC8	BC3 BC5 BC9 BC10	CC2 CC3
Utilizar axeitadamente instrumentos e equipos de laboratorio especializado para a determinación das propiedades e / ou análise química	AC3 AC5 AC7 AC8	BC2 BC6 BC12	CC1
Analizar os resultados experimentais e as conclusións	AC8	BC2	CC3
Recoñecer e valorar os riscos asociados co sistema químicos estudo, tomar as medidas adecuadas	AC8	BC4 BC9	CC1 CC4
Adquisición de experiencia profesional (humano técnica e), complementar a súa formación, para facilitar a súa integración no mundo profesional	AC8	BC8 BC11	CC4 CC5
Xestionar os datos obtidos en experimentos, relacionando as teorías físicas, químicas e biolóxicas adecuadas, utilizando para iso as fontes de literatura primarias	AC7 AC8	BC9	CC1

Contents	
Topic	Sub-topic
As prácticas ten como obxetivo adquirir aprender a realización práctica dun proxecto profesional nun ambiente de empresarial	

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Guest lecture / keynote speech	B6	3	0	3
Laboratory practice	A3 A5 A7 B2 B3 B4 B5 B11 C1	114	0	114
Supervised projects	A8 B8 B9 B10 B12 C2 C3 C4 C5	15	15	30
Personalized attention		3	0	3
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies

Methodologies	Description
Guest lecture / keynote speech	clases teóricas
Laboratory practice	Realizarase nun laboratorio ou nunha empresa as prácticas avanzadas e / ou tese de máster. traballo práctico individual baixo a supervisión dun titor persoal, coa infraestrutura adecuada e cos medios necesarios para alcanzar os obxectivos
Supervised projects	Realización de traballos e informes escritos

Personalized attention	
Methodologies	Description

Assessment			
Methodologies	Competencies	Description	Qualification
Supervised projects	A8 B8 B9 B10 B12 C2 C3 C4 C5	Realización de traballos e informes escritos Informes titores estudantís	45
Laboratory practice	A3 A5 A7 B2 B3 B4 B5 B11 C1	Destreza no laboratorio	55

Assessment comments
Esta materia será obrigatoria e exclusiva para estudantes da especialidade da química e Economía Industrial que teñen que cursar seis das sete materias desta especialidade. Será estudada no segundo semestre, despois de completar esta especialidade e antes da conclusión do Traballo Fin de Máster. A xestión académica desta materia será xerar una bolsa práctica ofrecidas polas empresas asociadas do Mestre. Os alumnos farán unha selección ordenada de prácticas de interese, tras o que lles serán asignadas as prácticas correspondente, de acordo cos criterios de mérito académico. Vaise garantir que todos os estudantes poda realizarlas nunha empresa. Cada alumno terá un supervisor da empresa, o que pode garantir o progreso e calidade do traballo e emitir un informe no final da súa estadía no mesmo, de acordo coas competencias definidas na memoria. Este informe será usado polo Comité Académico do Mestre de avaliación dos alumnos. Por outra banda, tamén estará baixo a supervisión dun titor académico dunha das universidades do consorcio ("Titor Interno"), que será un profesor/a da titulación do Mestrado, e a sua misión e de facer un seguimento máis directo das prácticas, responder ás expectativas creadas e asegurar o bo desenvolvemento da práctica e avaliar o alumno. O informe de ambos titores serán utilizados para a avaliación dos alumnos. O titor académico pode avaliar considerando o informe presentado polo alumno ao final do informe presentado polo titor externo. A cualificación será comunicado ao coordinador das practicas.

Sources of information	
Basic	
Complementary	

Recommendations
Subjects that it is recommended to have taken before
Subjects that are recommended to be taken simultaneously
Subjects that continue the syllabus
Other comments

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.