Teaching Guide				
Identifying Data				2021/22
Subject (*)	Practical Academic Training		Code	610509136
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	12
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	QuímicaQuímica Fundamental			
Coordinador		E-mail		
Lecturers		E-mail		
Web	Para más información: http://miiquimica.webnode.es/			
General description	A asignatura ?Practicas Académicas? consistirá nun programa deseñado específicamente para cada alumno, que se corresponderá coa especialidade ou selección persoal de asignaturas do ?Perfil Investigador? que curse, correspondentes óslos modulos M2-M6 do mismo			
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		
Manexarse nos métodos relacionados coas diferentes áreas da Química. Manexar instrumentación avanzada de análises químicas e determinación estrutural. Utilizar correctamente instrumentos e material de laboratorio especializado, para a determinación de propiedades e/ou análise de produtos químicos.	AC3 AC7	BC2 BC3 BC4 BC5 BC6 BC9 BC10 BC11	CC1 CC2 CC4
Manexar os datos obtidos nos experimentos realizados, relacionándoos coa teorías físicas, químicas e biolóxicas apropiadas, usando para iso fontes bibliográficas primarias. Analizar os resultados experimentais e extraer conclusións.	AC7 AC8	BC2 BC3 BC5 BC8 BC9 BC10	CC3
Recoñecer e avaliar os riscos asociados ao sistema químico obxecto de estudo, adoptando as medidas oportunas. Adquisición de experiencia profesional (técnica e humana), complementaria da súa formación académica, que facilite a súa incorporación ao mundo profesional	AC5	BC3 BC8 BC12	CC4 CC5

Contents	
Topic	Sub-topic
Técnicas instrumentais analíticas e de determinación estrutural e/ou técnicas de síntese e formulación de productos químicos	O programa formativo dependerá da especialidade elexida polo alumno. Ó principio do curso ofertarase ós alumnos os Proxectos de Prácticas Académicas presentados polos potenciais tutores. Esta oferta consistirá nun panel de prácticas seleccionadas pola Comisión Académica do Master, debendo de xerarse unha bolsa suficiente de prácticas. O alumno poderá solicitar unha relación priorizada de prácticas que, posteriormente, e de acordo a criterios estritos de obxetividade, serán asignadas pola Comisión Académica do Master.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Supervised projects	A5 B3 B4 B8 B10 C1 C3	15	30	45
Laboratory practice	A3 A7 A8 B2 B3 B4 B5 B6 B8 B9 B10 B11 B12 C2 C3 C4 C5	114	114	228
Guest lecture / keynote speech	B3 B9 C4 C5	3	18	21

Personalized attention		6	0	6
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	**Description**
Supervised projects	Plantexamento de casos prácticos
Laboratory practice	Aplicar a casos concretos técnicas instrumentais analíticas e de determinación estructural e/ou técnicas de síntese e formulación de productos químicos
Guest lecture / keynote speech	Exposición de contidos

Personalized attention	
Methodologies	**Description**
Guest lecture / keynote speech Supervised projects Laboratory practice	Tutorías programadas pollo profesor e coordinadas polo Centro. Estarán orientadas á resolución de dúbidas sobre os contidos da asignatura e a preparación dos problemas

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Supervised projects	A5 B3 B4 B8 B10 C1 C3	Realización de traballos e informes escritos	10
Laboratory practice	A3 A7 A8 B2 B3 B4 B5 B6 B8 B9 B10 B11 B12 C2 C3 C4 C5	Destreza no laboratorio Informes de titores do estudante Avaliación das competencias prácticas adquiridas Exposición oral	90

Assessment comments
A avaliación da asignatura terá lugar no mes de xuño, e realizarase en base á consecución das competencias en relación co traballo realizado no laboratorio e a elaboración dunha memoria final. Cada alumno, unha vez finalizadas as prácticas e no periodo establecido, entregará tres exemplares da Memoria en formato papel y un en formato electrónico, redactados en castellán, galego ou inglés, dacordo co formato establecido que lle será comunicado ó alumno. A avaliación será levada a cabo polo coordinador da materia en cada universidad, o coordinador xeral da mesma e o tutor do alumno, dacordo co previsto na Memoria do Master e co anexo establecido..

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
Recoméndase consultar a páxina web do master (http://miiquimica.webnode.es/) na que se fará publica toda a información complementaria da asignatura.

(*)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.