



Teaching Guide				
Identifying Data				2021/22
Subject (*)	Work Placement	Code	610441022s	
Study programme	Máster Universitario en Bioloxía Molecular, Celular e Xenética (semipresencial)			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	2nd four-month period	First	Optional	6
Language	Spanish			
Teaching method	Hybrid			
Prerequisites				
Department	BioloxíaCiencias da Computación e Tecnoloxías da InformaciónFisioterapia, Medicina e Ciencias Biomédicas			
Coordinador	Cerdan Villanueva, Maria Esperanza	E-mail	esper.cerdan@udc.es	
Lecturers	Arufe Gonda, María del Carmen Cerdan Villanueva, Maria Esperanza Dorado de la Calle, Julian Folgueira Otero, Mónica Gonzalez Siso, Maria Isabel Insua Pombo, Ana Maria Rioboo Blanco, Carmen Silvar Pereiro, Cristina	E-mail	maria.arufe@udc.es esper.cerdan@udc.es julian.dorado@udc.es m.folgueira@udc.es isabel.gsiso@udc.es ana.insua@udc.es carmen.rioboo@udc.es c.silvar@udc.es	
Web	<a href="http://ciencias.udc.es/MBMCG/">http://ciencias.udc.es/MBMCG/</a>			
General description	<p>External practices constitute a period of apprenticeship in companies and institutions .</p> <p>Coordinates the external practices Esperanza Cerdán Villanueva.</p> <p>Although only appear in the application as teachers those who participated in external practices in the previous year, all teachers officially associated with the Master BMCG can participate as academic tutors of external practices, and each company appoints for each student a tutor in company.</p>			
Contingency plan	<p>If, due to a state of alarm caused by COVID19 or due to security restrictions imposed by companies and institutions, it is not possible to assign external practices to students in the 2020-21 academic year, there are two situations:</p> <p>a) That companies and institutions can offer online practices that would be evaluated by the same criteria as face-to-face practices, without changing other aspects related to teaching and monitoring.</p> <p>b) That the external practices be replaced by 2 optional subjects, changing the student's enrollment, in which case the contingency plans foreseen in the selected subjects would be applied</p>			

Study programme competences	
Code	Study programme competences
A1	Skills of working in a sure way in the laboratories knowing operation handbooks and actions to avoid incidents of risk.
A2	Skills of using usual techniques and instruments in the cellular, biological and molecular research: that are able to use techniques and instruments as well as understanding potentials of their uses and applications.
A3	Skills of understanding the functioning of cells through the structural organization, biochemistry, gene expression and genetic variability.
A8	Skills of having an integrated view of the previously acquired knowledge about Molecular and Cellular Biology and Genetics, with an interdisciplinary approach and experimental work.
A13	Skills to become a professional in health, pharmacy, veterinary, animal production, biotechnology or food sectors.
B2	Skills of decision making for the problem solving: that are able to apply theoretical knowledges and practical acquired in the formulation of biological problems and the looking for solutions.
B4	Organization and work planning skills: that are able to manage the use of the time as well as available resources and to organize the work in the laboratory.
B6	Skills of team work: that are able to keep efficient interpersonal relationships in an interdisciplinary and international work context, with respect for the cultural diversity.



B7	Personal progress skills : that are able to learn from freelance way, adapting to new situations, developing necessary qualities as the creativity, skills of leadership, motivation for the excellence and the quality.
B12	That students are able to integrate knowledge and face the complexity of formulating judgments based on information, which, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
C1	Ability to express oneself correctly, both orally and in writing, in the official languages of the autonomous community
C2	Ability to know and use appropriately the technical terminology of the field of knowledge of the master, in the native language and in English, as a language of international diffusion in this field
C3	Using ICT in working contexts and lifelong learning.
C4	Acting as a respectful citizen according to democratic cultures and human rights and with a gender perspective.
C5	Understanding the importance of entrepreneurial culture and the useful means for enterprising people.
C6	Acquiring skills for healthy lifestyles, and healthy habits and routines.
C7	Developing the ability to work in interdisciplinary or transdisciplinary teams in order to offer proposals that can contribute to a sustainable environmental, economic, political and social development.
C8	Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.
C9	Ability to manage times and resources: developing plans, prioritizing activities, identifying critical points, establishing goals and accomplishing them.

Learning outcomes			
Learning outcomes	Study programme competences		
External practices contribute to the training of students towards their subsequent professional integration and enable access to learning techniques , protocols , skills and attitudes necessary for training and professional integration.	AR1	BR2	CC1
	AR2	BR4	CC2
	AR3	BR6	CC3
	AR8	BR7	CC4
	AR13	BC3	CC5
			CC6
			CC7
			CC8
			CC9

Contents	
Topic	Sub-topic
Once each student has been assigned to a company / institution, the tutor in the company will prepare a descriptive plan of the practical work and methodology. This plan will also include the timetables for the implementation of practices and methods of supervision by the tutor of the company. There is a standard form available on the website of Master BMCG .	

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Introductory activities	A13 B2 B7 C1 C3 C4 C8	3	0	3
Document analysis	A8 B12 C2	0	98	98
Laboratory practice	A1 A2 A3 B4 B6 C5 C6 C7 C9	90	0	90
Summary	A8 C3	2	30	32



Personalized attention		2	0	2
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Introductory activities	Interview and presentation of training plan. The academic tutor will supervise the student practices and procedures as well as informs necessary for the realization of external practices.
Document analysis	Analysis of literature and protocols necessary for the implementation of practices and understanding of its various applications to the solution of problems and the development of ideas for innovation.
Laboratory practice	This methodology refers to practical work in the company / institution and its specific development for each case will be proposed by the tutor in the company.
Summary	The student will develop a memory in which techniques and procedures developed during their stay in the company are collected and their personal assessment of the application of this knowledge to solve problems related to the fields of application of the Master and its potential for business development . There is a type format available on the website of the Master .

Personalized attention	
Methodologies	Description
Introductory activities Summary	The academic tutor will guide students in their choice of practical work and how to prepare and submit the written summary.

Assessment			
Methodologies	Competencies	Description	Qualification
Laboratory practice	A1 A2 A3 B4 B6 C5 C6 C7 C9	The tutor in the company makes a report on the skills developed by the student.	50
Summary	A8 C3	The student makes a report on the external practices that must be made ??with the approval of the company tutor and academic supervisor. There is a standard form of memory that is available to students on the website of the Master .  The academic tutor assesses the report of the tutor in the company and the report submitted by the student and in turn issued a report with a recommendation rating.	50

Assessment comments
The overall process of assessing the PEX is based on three processes  a) The report by the tutor of the company b) The report prepared by the academic tutor who assesses the report of the company tutor and memory prepared by the student c) The joint evaluation by the Commission of the Degree of the evidence collected in a) and b )

Sources of information	
Basic	Específico para cada actividade será indicado ao alumno polo titor da empresa.
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

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To contribute to achieving an immediate sustainable environment and comply with point 6 of the &quot;Environmental Declaration of the Faculty of Sciences (2020)&quot;, the documentary work carried out in this area:

They will be requested mostly in virtual format and computer support.&lt;/pre&gt;&lt;/div&gt;

**(\*)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.**