



Teaching Guide				
Identifying Data				2016/17
Subject (*)	Prácticas Externas	Code	610441021	
Study programme	Mestrado Universitario en Bioloxía Molecular , Celular e Xenética			
Descriptors				
Cycle	Period	Year	Type	Credits
Official Master's Degree	Yearly	First	Optativa	9
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Bioloxía Animal, Bioloxía Vexetal e EcoloxíaBioloxía Celular e MolecularMedicinaPsicología			
Coordinador	Cerdan Villanueva, Maria Esperanza	E-mail	esper.cerdan@udc.es	
Lecturers	Cerdan Villanueva, Maria Esperanza Cid Blanco, Angeles Diaz Varela, Jose Gonzalez Siso, Maria Isabel Gonzalez Tizon, Ana Maria Insua Pombo, Ana Maria Laffon Lage, Blanca Manso Revilla, Maria Jesus	E-mail	esper.cerdan@udc.es angeles.cid@udc.es jose.diaz.varela@udc.es isabel.gsiso@udc.es ana.gonzalez.tizon@udc.es ana.insua@udc.es blanca.laffon@udc.es maria.jesus.manso@udc.es	
Web	http://ciencias.udc.es/MBMCG/			
General description	<p>Las prácticas externas constituyen un periodo de aprendizaje profesional en empresas e instituciones colaboradoras.</p> <p>Coordina las practicas externas María Esperanza Cerdán Villanueva.</p> <p>Aunque por defecto aparecen en la aplicación como profesorado sólo los profesores que tutorizaron prácticas en el curso anterior, todos los profesores oficialmente asociados al Máster BMCG pueden participar como tutores académicos de las prácticas externas, además cada empresa designa para cada alumno a un tutor en la empresa.</p> <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>			

Study programme competences	
Code	Study programme competences
A1	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.
A2	Skills of working in a sure way in the laboratories knowing operation handbooks and actions to avoid incidents of risk.
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.
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.
C4	Skills of take place for the exercise of an open citizenship, highbrow, critic, committed, democratic and solidary, able to analyze the reality, diagnosing problems, formulating and to implement solutions based on the knowledge and oriented to common good.
C5	Understanding the importance of the enterprising culture and to know means within reach of enterprising people.
C6	Considering critically the knowledge, technologies and the available information to solve problems with which should face.
C7	Assuming as a professional and citizen the importance of the apprenticeship over the life.
C8	Considering the importance that the investigation has, the innovation and the technological development in the socioeconomic advance and cultural of the society.

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	BR4	CC4
		AR2	BR6	CC5
		AR3	BR7	CC6
		AR8		CC7
		AR13		CC8

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	B7	3	0	3
Document analysis	A1 A8	0	98	98
Laboratory practice	A1 A2 A13 B4 B6 C4 C5 C6 C7 C8	90	0	90
Summary	A1 A3 A8 C6 C8	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 .
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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 A13 B4 B6 C4 C5 C6 C7 C8	The tutor in the company makes a report on the skills developed by the student.	50
Summary	A1 A3 A8 C6 C8	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

(*)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.