



Teaching Guide

| Teaching Guide | | | | |
|--------------------------|--|--------|--|-----------|
| Identifying Data | | | 2018/19 | |
| Subject (*) | Project | | Code | 610441022 |
| Study programme | Mestrado Universitario en Bioloxía Molecular , Celular e Xenética | | | |
| Descriptors | | | | |
| Cycle | Period | Year | Type | Credits |
| Official Master's Degree | Yearly | First | Obligatory | 12 |
| Language | SpanishFrenchGalicianEnglish | | | |
| Teaching method | Face-to-face | | | |
| Prerequisites | | | | |
| Department | BioloxíaCiencias Biomédicas, Medicina e FisioterapiaPsicoloxía | | | |
| Coordinador | | E-mail | | |
| Lecturers | Cerdan Villanueva, Maria Esperanza Cordido Carballido, Fernando Diaz Varela, Jose Freire Picos, María Ángeles Gonzalez Siso, Maria Isabel Gonzalez Tizon, Ana Maria Laffon Lage, Blanca Lamas Maceiras, Mónica Martinez Lage, Andres Nuñez Fernández, Lucia Poza Domínguez, Margarita Rioboo Blanco, Carmen Sangiao Alvarellos, Susana Valdiglesias García, Vanessa | E-mail | esper.cerdan@udc.es fernando.cordido@udc.es jose.diaz.varela@udc.es maria.freirep@udc.es isabel.gsiso@udc.es ana.gonzalez.tizon@udc.es blanca.laffon@udc.es monica.lamas@udc.es andres.martinez@udc.es lucia.nunez@udc.es margarita.poza.dominguez@correo.udc.es carmen.rioboo@udc.es susana.sangiao@udc.es vanessa.valdiglesias@udc.es | |
| Web | http://ciencias.udc.es/MBMCG/ | | | |
| General description | All the Master professors may direct the TFM (trrbajos Fin de Master , the end of Master Work). Respect to those researchers and doctors not belonging to the Master, they may direct TFM's when they have an assigned Tutor/advisor that has to be from the Master. | | | |

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. |
| B1 | Analysis skills to understand biological problems in connection with the Molecular and Cellular Biology and Genetics. |
| 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. |
| B3 | Skills of management of the information: that are able to gather and to understand relevant information and results, obtaining conclusions and to prepare reasoned reports on scientific and biotechnological questions |
| 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. |
| B5 | Correct oral and written communication on scientific topics in the native language and at least in another International diffusion language. |
| 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. |



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| 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. |
| B8 | Critical reasoning skills and ethical commitment with the society: sensitivity in front of bioethical problems and to the ones related to the natural resource conservation |
| B9 | Skills of preparation, show and defense of a work. |
| C1 | Skills of expressing correctly, so much of oral form as written, in the official languages of the autonomous region. |
| C2 | Skills of dominating the oral form expression and compression and written of a foreign language. |
| C3 | Skills of Using basic tools of the information technologies and communications (ICT) necessary to the exercise of his profession and for the apprenticeship over his life. |
| 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 | |
| The student will do an experimental work integrated into a research group or, alternatively, will undertake a personal research project; in both cases under the direction of a doctor. The personal research work is not just a literature review, but implies the development of a project. The work will be written and then exposed and defended in public session. The rules of TFM are in the WEB of the Master | | AR1 | BR1 CC1 |
| | | AR2 | BR2 CC2 |
| | | AR3 | BR3 CC3 |
| | | AR8 | BR4 CC4 |
| | | AR13 | BR5 CC5 |
| | | | BR6 CC6 |
| | | | BR7 CC7 |
| | | | BR8 CC8 |
| | | | BR9 |

| Contents | |
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| Topic | Sub-topic |
| The specific topics of the TFM work of each academic year will be announced at the beginning of the first semester, based on enrollment and availability of teachers to guide them. Generic topics and contact details of teachers are released before the pre -registration period. | Os temas concretos dos traballos do Mestrado de cada curso académico daráanse a conocer ao principio do primer cuatrimestre en función dos alumnos matriculados e da disponibilidad de profesores para dirixirlos. Os temas xenéricos e profesores de contacto se dan a coñecer antes do periodo de pre-inscripción. |

| Planning | | | | |
|-----------------------------|--|----------------------|-------------------------------|-------------|
| Methodologies / tests | Competencies | Ordinary class hours | Student?s personal work hours | Total hours |
| Introductory activities | C7 | 2 | 0 | 2 |
| Research (Research project) | A1 A2 A3 A8 A13 B1 B3 B2 B4 B6 B7 B8 C2 C3 C4 C5 C6 C7 C8 | 112 | 20 | 132 |
| Directed discussion | A8 B1 B7 B8 C6 C8 | 6 | 12 | 18 |
| Oral presentation | B5 B9 C1 C3 | 0 | 20 | 20 |
| Summary | A3 A8 B9 B3 C1 C2 | 0 | 70 | 70 |



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|---|----------|---|----|----|
| Document analysis | A3 B3 C2 | 0 | 50 | 50 |
| Personalized attention | | 8 | 0 | 8 |
| (*)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 | Aimed at selecting the theme / Director |
| Research (Research project) | Laboratory work or project |
| Directed discussion | Data analysis and discussion with director / tutor ahead of the drafting of conclusions |
| Oral presentation | Public exhibition and defence |
| Summary | Preparation of the writing summary of the work (Memoria TFM) |
| Document analysis | Bibliographic search to define "state of the art" in the written memory |

| Personalized attention | |
|--|--|
| Methodologies | Description |
| Oral presentation Introductory activities Research (Research project) Directed discussion Document analysis Summary | The Personalized attention hours will be distributed by the director / tutor |

| Assessment | | | |
|-----------------------------|---|---|---------------|
| Methodologies | Competencies | Description | Qualification |
| Oral presentation | B5 B9 C1 C3 | The competences achieved in the analysis of the documentary sources, the written report, presentation and public defense of the work are evaluated using a rubric used by members of the evaluating committee and published in the web of the master. | 30 |
| Research (Research project) | A1 A2 A3 A8 A13 B1 B3 B2 B4 B6 B7 B8 C2 C3 C4 C5 C6 C7 C8 | The director of the TFM evaluates these competencies through the rubric published on the website of the master. The % of the final score may represent 30% or less at the discretion of the evaluating committee. | 30 |
| Summary | A3 A8 B9 B3 C1 C2 | The competences achieved in the analysis of the documentary sources, the written report, presentation and public defense of the work are evaluated using a rubric used by members of the evaluating committee and published in the web of the master. | 40 |

| Assessment comments |
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| Sources of information | |
|------------------------|---|
| Basic | Serán específicas para cada traballo e na maior parte buscadas polo propio alumno |
| Complementary | Serán específicas para cada traballo |

| Recommendations |
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| Subjects that it is recommended to have taken before |
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| Subjects that are recommended to be taken simultaneously |
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| Subjects that continue the syllabus |
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| Other comments |
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(*)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.