

| Data Subject   |   |   |                         |
|--|---|---|-------------------------|
| Code   | 43471   |   |                         |
| Name   | Master's final project                          |   |                         |
| Cycle  | Master's degree                                 |   |                         |
| ECTS Credits   | 30.0  |   |                         |
| Academic year  | 2021 - 2022                                     |   |                         |
| Study (s)  | •   |   |                         |
| Degree   |   | Center  | Acad. Period            |
|  |   | Faculty of Biological Sciences                | year<br>1 Other cases   |
| Cellular and Geneti  |   | Faculty of Biological Sciences                |                         |
| Cellular and Geneti<br>Subject-matter  |   | Faculty of Biological Sciences Subject-matter |                         |
| 2210 - M.D. in Rese<br>Cellular and Geneti<br><b>Subject-matter</b><br><b>Degree</b><br>2210 - M.D. in Rese<br>Cellular and Geneti | cs Biology<br>earch in Molecular,               |   | 1 Other cases           |
| Cellular and Geneti<br>Subject-matter<br>Degree<br>2210 - M.D. in Rese<br>Cellular and Geneti                                      | cs Biology<br>earch in Molecular,               | Subject-matter                                | 1 Other cases Character |
| Cellular and Geneti<br>Subject-matter<br>Degree<br>2210 - M.D. in Rese   | cs Biology<br>earch in Molecular,               | Subject-matter                                | 1 Other cases Character |
| Cellular and Geneti<br>Subject-matter<br>Degree<br>2210 - M.D. in Rese<br>Cellular and Geneti<br>Coordination                      | cs Biology<br>earch in Molecular,<br>cs Biology | Subject-matter<br>16 - Master's final project | 1 Other cases           |

# SUMMARY

The Master Thesis is necessary for the attainment of the Master's degree in Research in Molecular and Cellular Biology and and Genetics. Professionally, it means that the student is trained to carry out an original research work. Specifically, it is intended that students develop a research, and an experimental design, write a scientific report and give their results in public. The director of the thesis should meet with the student to establish the general and specific objectives of the research as well as to carry out the design of experimental work. Previously and/or in parallel, the director have to provide the student with the scientific literature on the subject or advise the student about the way to get it. Another important function of the director should be help the student to acquire the necessary skills for the use of the experimental techniques associated to the Master Thesis



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# PREVIOUS KNOWLEDGE

#### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### **Other requirements**

## OUTCOMES

2210 - M.D. in Research in Molecular, Cellular and Genetics Biology

- Capacidad para realizar, redactar, exponer y defender un trabajo de investigación en las áreas de conocimiento relacionadas con el máster en investigación en biología molecular, celular y genética.

# LEARNING OUTCOMES

- Learns about the scientific method and the correct guidelines for experimentation.
- Know how to interpret a scientific article and get information to develop an experimental work.
- Know how to write a research paper.
- Know how to give an oral research presentation
  - Know how to manage the adequate resources to obtain scientific information
  - Forming a critical spirit in interpreting both problems that are intended to address and the results obtained.

# WORKLOAD

| ACTIVITY   | Hours  | % To be attended |
|--|--------|------------------|
| Graduation project                                   | ~      | 100              |
| *Realización del Trabajo Fin de Máster               | 724,00 | _0               |
| Seguimiento i tutorización del Trabajo Fin de Máster | 24,00  | 0                |
| Presentación y defensa del Trabajo Fin de Máster     | 2,00   | 0                |
| TOTAL  | 750,00 |                  |

## **TEACHING METHODOLOGY**

In principle, it is anticipated that the research work will preferably take place during the second semester of the academic year and defended in July or September. However, the development of the work will depend on the laboratory results.



VNIVERSITAT De VALÈNCIA The students will enroll the master thesis proposal by delivering a writing signed by him and by the Director (s) that should content the title and a summary (250 and 500 words) comprising the objectives of the work. No proposal will be accepted that results may be subject to any type of intellectual protection or that require any level of confidentiality (e.g. patentable results). The Academic Coordination Commission shall inform directors and students the approval or rejection of the registration. The work shall be designed so that its implementation is feasible within the volume of work mentioned above. The director of the thesis will provide the student a basic bibliography and targets to achieve. The director shall periodically monitor that work progresses according to the proposed objectives and at a pace suitable to its conclusion during the course.

At the end of the investigation, the student will prepare a memory, with an extension of 20 pages in Din A4 format, with margins of 2.5 cm and line spacing of 1.5cm, letter Times New Roman 12. It will be a penaty to exceeding the lenght. The work may be submitted in either of the two official languages of the University of Valencia or English. 4 Copies will be delivered: 3 in paper for members of the tribunal and 1 in **digital format** (Virtual office, ENTREU) for file, with no confidentiality exceptions.

The structure of memory will follow that of a scientific article:

**The first page will contain:** Master's thesis. Master in Investigation in Molecular Biology, Cell Biology a Genetic. Universitat de València. Author, Director(s) and their affiliation. Tutor (if applicable)

The second page will contain: Abstract in Spanish, Valencian or English, and keywords.

**The following pages will include:** Introduction, materials and methods, results, discussion (a combined R & D section is also accepted) and bibliography

The memory will contain the figures or tables necessary to make the work more understandable. If necessary, up to 3 sheets with attachments may be included, which should not be an extension of the TFM itself. The following sections, except the first and second pages and the annexes, are counted in the 20 pages of maximum extension.

The work must be present prior to the date of his defense. The exact defense dates will be informed at each call.

Defense consists of a public oral presentation with a maximum duration of 20 minutes and an approximate time of 10 minutes to answer the questions of the examination court. As it is a public presentation, no confidentiality can be made

## **EVALUATION**

The final qualification will be based on three criteria:



### 1) General work approach

The evaluation should include: the quality of the research carried out, the difficulty of the laboratory methods or computer programs used, and the way in which the student has developed the proposed objectives and the originality of the approximations employed.

### (2) Evaluation of the written report.

The student must submit a report of the research work. The report evaluation should include: The correct and complete description of the experiments, the validity of the obtained conclusions and conciseness and proper use of written language. The way in which the student has raised and discussed the results obtained will be also evaluated

### (3) Evaluation of the oral presentation.

Student will give a 20 minutes maximum oral presentation ; subsequently the student should answer any question raised by the examination court. The evaluation of the oral presentation should include: Exposition clarity, the appropriate distribution time between presentation of the problem and the exposition of the results and conclusions, the correct use of language, the adequacy of the visual presentation, the scientific knowledge of the subject and precision in answers to the questions posed.

The composition of Examination court will suit that determined by the Master's academic Committee and regulations of the University of Valencia.

### 4) Evaluation of the TFM Tutors.

Prior to the defense of the TFM, the supervisor (s) should send the student's evaluation form to the TFM Court President by e-mail. In the Virtual Classroom, the evaluation forms available to the court and scientific tutors will be posted in sufficient time, along with the academic tutor's approval form, if applicable.

## ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

The TFM will be carried out in person following the instructions of the Faculty of Biology and the University of Valencia, preserving the corresponding sanitary measures. If any subsequent regulations are promulgated, their implementation will be adapted to comply with the regulations in force at any time. In case of limitations to the attendance, the evaluation of the students in the first or second call will be carried out in one of the following ways, in an alternative or complementary way.



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a) Continuous evaluation: works, exhibitions that will be detailed by the teaching team of the subject b) Telematic evaluation: by oral examination using the official platform of the UV Virtual Classroom-Blackboard) or other official applications. In this case, the teachers will record the exam for future consultations or claims.

c) Exam using the Virtual Classroom utilities (Questionnaire)

d) Any other modality approved ad hoc by the CCA

