Universidad Zaragoza

Academic Year/course: 2023/24

68464 - Master Project

Syllabus Information

Academic year: 2023/24
Subject: 68464 - Master Project
Faculty / School: 100 - Facultad de Ciencias
Degree: 626 - Máster Universitario en Biofísica y Biotecnología Cuantitativa / Master in Biophysics and Quantitative Biotechnology
ECTS: 30.0
Year: 02
Semester: First semester
Subject type: Master Final Project
Module:

1. General information

The overall objective of the Master Project and Dissertation is to form the student as an independent researcher, to be employed in public or private companies and research institutions. In more detail, specific goals are:

- To enable students to acquire the basic skills required to conduct experimental or computational work in the field of Molecular and Cellular Biology, Computational Biology or other fields related to Biotechnology
- To teach the students how to analyze and interpret experimental/computational data obtained and take decisions according to those results.
- To endow students with problem-solving skills, to tackle the obstacles they may find in their professional or research activity in the fields of Biotechnology and Biophysics.
- To train the students in presenting their scientific work in a clear and concise manner, in oral and in written form, both to the specialist and to the general audience.

2. Learning results

The student, after completing the Master Project,

- will be able to do research (experimental, computational theoretical) with a high degree of independence and originality
- will apply the contents of the other courses of the master to a real research project
- will be able to communicate, orally or on paper, the results of the project to other colleagues of the same or close areas.
- will be familiar with the work at a research laboratory and/or a biotech company

3. Syllabus

The list of available Master's dissertations, including title, description and contact coordinates of the tutor(s), will be published according to the Faculty and the Department's guidelines, and the Master's coordinator will inform the enrolled students, roughly in October or first half of November . The student will choose one topic, and present a signed agreement about the choice.

Each student will carry on the research activities under the supervision of the Tutor.

The dissertation will be evaluated in any of the official periods established by the Faculty of Sciences. The exact dates for the defense and the formation of the Evaluation Board will be published on the Faculty of Science webpage (http://ciencias.unizar.es/)

4. Academic activities

The main learning activities of this course are:

1. The tutor will propose a specific scientific problem to the student (an hypothesis that has to be checked, a model to be developed,...). The student should get acquainted with the relevant literature, and discuss with the tutor a detailed research plan, as well as a schedule for periodic meeting.

2. The student will learn and apply the experimental/computational/theoretical methods required to obtain the results.

3. The student will learn to analyze and interpret the results, and to discuss them and plan new tests with the help of the Tutor.

4, The student will learn to prepare a scientific report (the Master Thesis) according to the instructions in this guide, with the supervision of the tutor.

6. The student will prepare an oral presentation of the work developed according to the time and content guidelines, with the supervision of the tutor.

There is not a specific syllabus for this course. Each student will organize the required activities according to the Tutor's guidelines.

5. Assessment system

The students will have to prepare a written report (Master Thesis) about their research activity during the Master Project. Also, they will have that will be defended during an oral examination in front of a three-member board.

If needed, this examination can be carried on with videoconferencing tools, according to the rules established by the University of Zaragoza.

Obviously, the memory, presentation and defense will be in English, which is the official language of the Master.

The board will evaluate both the structure and contents of the Thesis as well as the student communication skills and mastery of the project's director on the student general performance will also be considered to issue the final score.

In detail the evaluation board will consider:

1. Quality of the Master Thesis (40% of final grade): This will be a written report of 40 (recommended) to 60 (maximum) pages (excluding the cm of left and right margins and 1.15-1.5 interline spacing. The thesis will present the research results and methods and include at least the Results, Conclusions and Bibliography.

2. Quality of the Oral Presentation and Defense (40% of final vote: 25% presentation, 15% debate). A public presentation of the work during committee during 30 minutes at most.

3. Report by the Master Thesis Director (20% of final vote).

In the case of fraud or total or partial plagiarism in any tasks detected by the evaluation committee, the student will fail to pass the examination.

The written memory will be presented typically around 8 school days before the defense. The precise dates for the defense will be communicated those established in the Science School Calendar (https://ciencias.unizar.es/calendario-y-horarios).