UAB
Universitat Autònoma
de Barcelona

2023/2024

Master's Degree Dissertation

Code: 45027
ECTS Credits: 10

Degree	Type	Year	Semester
3500042 Erasmus Mundus Master in Human Disease Models Morphological Phenotyping	OB	0	2

Contact

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Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Ana Maria Carretero Romay

Marc Navarro Beltran

Jesus Ruberte Paris

Victor Nacher Garcia

Judit Pampalona Sala

External teachers

Anastasia Tsingotjidou

Anastasios Delopoulos

Antonio Duarte

Livia d'Angelo

Luísa Mendes-Jorge

Paolo de Girolamo

Prerequisites

There are no prerequisites.

Objectives and Contextualisation

The main objective is for the student to work in an integrated way on the transversal skills specific to the master's degree. The student must present a work framed within the field of mouse morphological phenotyping of human diseases, carrying out a research project in anatomy, pathology, imaging or deep learning.

The learning outcomes match the sections of a research paper: posing a research question and writing an appropriate theoretical framework, identifying the most appropriate design to answer the question, selecting and applying appropriate methods, analyzing data and obtaining the results, and discuss the results in the context of scientific production.

The preparation of the work will be supervised by a director and, in the event that the director does not have teaching assigned to the master's, a tutor with teaching in MorphoPHEN will also be assigned. The director will advise and help to resolve any possible doubts that may arise, at the same time that he will carry out an evaluation of the process followed by the student. Once the work has been completed, it must be defended before the evaluation committee of the Final Master's Thesis.

Learning Outcomes

- CM06 (Competence) Design a research plan based on the different methodologies used for the phenotyped morphology of mice, in which the problem is defined, hypothesis, research objectives, and research questions, in accordance with the relevant literature.
- KM15 (Knowledge) Have specific knowledge related to the objectives and content of final master's degree projects.
- SM09 (Skill) Write a research article, extract key information from the existing bibliography, and plan and organise a manuscript.

Content

The Final Master's Dissectation is a research project on anatomy, pathology, or deep learning applied to the morphological phenotyping of human diseases mouse models. The Final Master's Dissertation can be of different nature: experimental, bibliographic or based in an analyse of previously obtained data and it will have three stages:

1. Planification Stage: the student, after a brief phase of preliminary documentation and, advised by its director, must formalize the objective of its work and will design a plan of activities that will be presented during the preliminary evaluation session, held just before that the student begin its activities.
2. Development stage: the student will face the realization of his/her Final Master's Dissertation according its stablished work plan.
3. Defense stage: The student will elaborate a written dissertation that will be presented and defended orally in a public session in front of the evaluation committee.

Methodology

Teaching methodology used will vary depending on the nature of each Final Master's Dissertation. Basically,it will consist of the following activities:

1. Directed activities: Informative session and preliminary evaluation session
2. Supervised activities: Tutorials
3. Autonomous activities: bibliographic research, reeading papers, cooperative learning, Carrying out works and practical activities, writing the master dissertation, defense of the Final Master's Dissertation, and personal study

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Informative session	1	0.04	CM06, CM06
Preeliminary evaluation session	2.5	0.1	CM06, CM06
Type: Supervised			
Tutorial	10	0.4	CM06, KM15, SM09, CM06
Type: Autonomous			
Bibliographic research and paper reading	30	1.2	CM06, KM15, SM09, CM06
Carrying out works and practical activities	116	4.64	KM15, KM15
Cooperative learning	15	0.6	CM06, KM15, SM09, CM06
Personal study	40	1.6	KM15, KM15
Writing of the Final Master's Dissertation	35	1.4	CM06, KM15, SM09, CM06

Assessment

The student must present a written report on the Final Master's Dissertation, which he will later defend in a public session. The director/tutor will issue an evaluation report on the work done, which will account for 20% of the final score. The evaluation of the written memory will account for 40% and its presentation and defense 40% of the final score. If the report is not delivered on time or the student does not appear for the defense, the Final Master's Dissertation will be considered "not evaluable".

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Director/tutor report	20	0	0	CM06, KM15, SM09
Exposition and defense of the Final Master's Disseration	40	0.5	0.02	CM06, KM15, SM09
Writen Final Master Disseration	40	0	0	CM06, KM15, SM09

Bibliography

Bibliography consulted will vary depending on the nature of each Final Master's Dissertation.

Software

Software used will vary depending on the nature of each Final Master Dissertation. We highly recommend the use of a Bibliographic Management Software, such as Mendeley - Reference Management Software.