UAB Universitat Autònoma de Barcelona

Master's Dissertation

Code: 42905 ECTS Credits: 9

2024/2025

Degree	Туре	Year	
4313772 Advanced Biotechnology	OB	0	

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You can view this information at the <u>end</u> of this document.

Prerequisites

For an optimal follow-up of this module it is necessary to have a basic training on Biotechnology and basic habilities in working in a laboratory.

Objectives and Contextualisation

The objective of this module is performing and presenting in a public defense a research work on a topic related to Biotechnology, in which the student integrated the knowledge, habilities and competences adquired in the master, and it will be possible to perform the work either in academic or company laboratories.

Competences

- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- Conceive, design, manage and develop projects in the field of biotechnology.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Organise, plan and manage projects.
- Synthesise, weigh up alternatives and engage in critical discussion.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Use and manage bibliography and IT resources related to biotechnology responsibly.

Learning Outcomes

- 1. Combine the knowledge acquired to make innovative proposals for projects in the field of biotechnology.
- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- 3. Design and manage research projects
- 4. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- 5. Monitor a research project in the field of biotechnology.

- 6. Organise, plan and manage projects.
- 7. Synthesise, weigh up alternatives and engage in critical discussion.
- 8. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- 9. Use and manage bibliography and IT resources related to biotechnology responsibly.

Content

The final master project will be presented in a scientific article format including the following sections: Introduction, Objevtives, Materials and Methods, Results and Discussion, Conclusions and Bibliography. The work presented must be based on the research topic developed during the time allocated for the module realization.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes	
Type: Directed				
Follow-up of the Master final project	10	0.4	1, 2, 3, 4, 5, 6, 7, 8, 9	
Type: Supervised				
Follow-up of the developed research activities	142	5.68	1, 2, 3, 4, 5, 6, 7, 8, 9	
Preparation of the written report and public presentation	30	1.2	1, 2, 3, 4, 5, 6, 7, 8, 9	
Type: Autonomous				
Own work in a research laboratory	40	1.6	2, 4, 6, 7, 8	

The training activities are directly related to the performance of the research project and mostly correspond to the follow-up of the laboratory work, planning of experiments and evaluation of the obtained results. These are activities mostly supervised that are complemented by own work from the student, in aspects such as the study of bibliography and the preparation of the writen report of the work and its oral defense.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation of the presentation and oral discussion	1/3 of the final score	0.9	0.04	1, 3, 4, 5, 6, 7, 8, 9
Evaluation of the written report	1/3 of the final score	2	0.08	1, 2, 3, 4, 5, 6, 7, 8, 9
Report from the advisor of the master final project	1/3 of the final score	0.1	0	1, 2, 3, 4, 5, 6, 7, 8, 9

The evaluation of the final master project is based on three aspects:

1) Report from advisor/advisors of the final master project (1/3 of final score).

2) Score given to the writen final report of the project by a comission of three professors or researchers in the Biotechnology domain (1/3 of final score)

3) Score given to the oral presentation and discussion of the work performed by a comission of three professors or researchers in the Biotechnology domain (1/3 of final score).

Bibliography

The blibiography will be provided by the advisor of the Master thesis according to the topic of the work to be developed.

Software

Not applicable

Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.