

Master's Dissertation

Code: 42905
ECTS Credits: 9

| Degree | Type | Year | Semester |
|--------------------------------|------|------|----------|
| 4313772 Advanced Biotechnology | OB | 0 | 2 |

Contact

Name: Francesc Gòdia Casablanca

Email: Francesc.Godia@uab.cat

Use of Languages

Principal working language: catalan (cat)

Teachers

Pau Ferrer Alegre

Prerequisites

For an optimal follow-up of this module it is necessary to have a basic training on Biotechnology and basic abilities 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, abilities and competences acquired 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.
2. 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, Objectives, 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.

Methodology

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 written report of the work and its oral defense.

Activities

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

Assessment

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 written final report of the project by a commission 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 commission of three professors or researchers in the Biotechnology domain (1/3 of final score).

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 | 7, 3, 5, 6, 1, 4, 8, 9 |

| | | | | |
|----------------------------------|------------------------|---|------|---------------------------|
| Evaluation of the written report | 1/3 of the final score | 2 | 0.08 | 7, 3, 5, 6, 1, 4, 2, 8, 9 |
|----------------------------------|------------------------|---|------|---------------------------|

| | | | | |
|---|------------------------|-----|---|---------------------------|
| Report from the advisor of the master final project | 1/3 of the final score | 0.1 | 0 | 7, 3, 5, 6, 1, 4, 2, 8, 9 |
|---|------------------------|-----|---|---------------------------|

Bibliography

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