

Degree	Type	Year	Semester
4313802 Advanced Genetics	OB	0	2

Contact

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Prerequisites

No special pre-requisites are needed

Use of languages

Principal working language: english (eng)

Objectives and Contextualisation

To be able to present in an understandable way the research activity carried out.

Aspects such as to be able to present the actual state of the art of the topic, the ability to search for adequate bibliography, to discuss the obtained results according to the genetic point of view, to present in an open session the developed activity and to be able to show an adequate knowledge of the topics are the objectives of this module.

Skills

- Conceive, design, carry out and synthesise scientific projects in the area of genetics, both theoretical and applied.
- Demonstrate responsibility in management of information and knowledge.
- Design and apply scientific methodology in resolving problems.
- Integrate genetic analysis at different levels of complexity (molecular, cell, individual, population) to coherently resolve different problems in the area of genetics.
- Possess and understand knowledge that provides a basis or opportunity for originality in the development and/or application of ideas, often in a research context
- Student should possess an ability to learn that enables them to continue studying in a manner which is largely self-supervised or independent
- Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements
- Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously
- Use and manage bibliographical information and other resources related to genetics and related fields.
- Use scientific terminology to argue the results of the research and show how to communicate in spoken and written English in an international setting.

Learning outcomes

1. Apply the bibliographical information collected in data bases to the experimental problem posed within the work
2. Demonstrate responsibility in management of information and knowledge.

3. Design and carry out a research project in the area of genetics
4. Present results in public
5. Presentation of a written report on an innovative subject area
6. Propose entrepreneurial projects in the area of genetics from an integrated view of the knowledge acquired.
7. Student should possess an ability to learn that enables them to continue studying in a manner which is largely self-supervised or independent
8. Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements
9. Take part in a research project or product development
10. Use scientific terminology to argue the results of the research and show how to communicate in spoken and written English in an international setting.
11. Write a report that considers the use of the methodology used in the module to resolve a specific problem

Content

The different methodologies used in the lab work, together with the references sources and the theoretical background adquired in the theoretical modules will constitute the content of the module.

Methodology

Writing, search for bibliography and ability to make and understable history of the research activity carried out will constitute the methodology used

Activities

Title	Hours	ECTS	Learning outcomes
Type: Supervised			
Supervision of the task	75	3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
Type: Autonomous			
Writing, presentation and defence of the Master Thesis	280	11.2	1, 4, 6, 7, 8, 10, 11

Evaluation

The Master Thesis document will be evaluated by a Commission of three members that will take into consideration aspects such as: State of the art, Objectives, Methodology, Results, Discussion, Conclusions, Bibliography and Writing.

The oral presentation and defence of the Master Thesis will be evaluated by the same Commission that will take into consideration aspects such as Scientific Content: Contextualization, Understanding of the subject, Logical reasoning, Suitability of the scientific vocabulary; Competent answers to questions, and Formal Features as: Use of language, Slide design, Communication and Timing.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
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Bibliography

The bibliography must be searched by the student and will constitute a component of the vinal evaluation.