UAB
Universitat Autònoma de Barcelona

Master's Dissertation

Code: 42948
ECTS Credits: 6

2024/2025

Degree	Type	Year
4313782 Cytogenetics and Reproductive Biology	OB	0

Contact

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Teaching groups languages

You can view this information at the end of this document.

Prerequisites

For the students of the Masters, both i) interested in the Professional Mode (enrolled in and doing Module 11: "Work Placement") and ii) interested in developing a Research carrier (including a Ph. D.) (enrolled in and doing Module 12: "Research Methodology"). Both mentioned Modules are prerequisites for Module 13: "Final Masters Project"

A degree, undergraduate or graduate, or the equivalent in Biology, Biomedical Sciences, Genetics and Biotechnology or related to appropriate curricula from different universities are valid. Graduates in Microbiology and Biochemistry can also have access to it. In these cases, the value of specifically trained students in the field of cytogenetics and / or of the Reproductive Biology, respectively, are available. When necessary, the Commission will urge the student to master certain training courses.

They must also demonstrate a basic knowledge of Catalan (Level B1) or Spanish (B1) (only students who are not Catalan or Spanish native speakers). If the student cannot demonstrate knowledge of the Language the Master´s Commission will interview the student and decide on his/her admission or exclusion.

They must also have a sufficient level of English to be trained to do, properly, all the stages of work: assessing the state of the art for the preparation of the Introduction, the hypothesis of work and goals to achieve, choosing the best among the available methodologies and assessing the development of new methodologies to obtain, evaluating and discussing the results produced in relation to the literature of the area to extract the specific conclusions of their work.

Objectives and Contextualisation

General Objectives

Preparation, presentation and explaining his/her experimental work during the development of Module 12 "Research Methodology" or Module 11 "Work Placements" where students integrate the knowledge and skills acquired in the programme.

Specific objectives of the Final Master´s Project

B06 (Basic) - To have the knowledge to provide a base or the opportunity to be original in the development or application of ideas, often in a research context.
B07 (Basic) - Students with capacities to apply the acquired knowledge and with the ability to solve problems in

new or poorly known areas(¿?) in a more extensive context (or multidisciplinary) related to the area of study.
B08 (Basic) - Students with capacities to integrate knowledge and face the complexity of formulating judgments based on information that, despite being incomplete or limited, include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
B09 (Basic) - Students with capacities to communicate their conclusions and the knowledge and ultimate reasons of that basis, to specialists and non-specialists, in a clear and unambiguous way.
B10 (Basic) - Students with the learning skills that enable them to continue studying, largely independent work of a self-directed nature.
E04 (Specific) - Interpret, solve and present case studies or scientific results in the field of the Master´s.
E04.16 - Design, develop and synthesize a basic or applied research project in the field of the Master´s.
E04.17 - Propose entrepreneurial projects, based on an integrated view of knowledge.
T04 (Transversal) - Use and manage bibliographical information and resources in the field of the Master´s in their mother tongue and in English.
T06 (Transversal) - Use of creativity, organizational skills and analytic skills in the decision-making process.

Competences

- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- Continue the learning process, to a large extent autonomously.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Interpret, resolve and report on clinical cases or scientific findings in the area of the master's degree.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Use and manage bibliography or ICT resources in the master's programme, in one's first language and in English.
- Use creative, organisational and analytic skills when taking decisions.

Learning Outcomes

1. Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
2. Continue the learning process, to a large extent autonomously.
3. Design, develop and synthesise a basic or applied research project within the master's programme
4. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
5. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
6. Suggest innovative projects based on combining the knowledge acquired.
7. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
8. Use and manage bibliography or ICT resources in the master's programme, in one's first language and in English.
9. Use creative, organisational and analytic skills when taking decisions.

Content

Students will develop a Final Master´s Project (FMP) during the academic year, which can be treated in/as one compilation of Clinical or Lab cases (if opted for by the Professional Mode) or in/as research work (if they have chosen the Research mode), establishing the contents with the Supervisor of the FMP

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Introduction to experimental work in the laboratory on the subject	20	0.8	9, 6, 4, 5, 2, 7, 8
Introduction to literature search of the topic.	5	0.2	3, 9, 4, 2, 7, 8
Introduction to the collection and evaluation of relevant results and communicate them. Discussion of Results	10	0.4	9, 6, 4, 1, 2, 8
Type: Autonomous			
Bibliographic search of on the topic	15	0.6	3, 9, 4, 2, 7, 8
Collection, evaluation and criticism of the results based on the existing literature	65	2.6	9, 6, 4, 1, 2, 8
Tasks laboratory experimentation on the theme	35	1.4	9, 6, 4, 5, 2, 7, 8

The methodology applied in the implementation of the "Final Master´s Project" FMP is based on the tutoring of students throughout the academic year.

At the beginning of each academic year, Coordinators of modules corresponding to each student enrolled will assign a Supervisor-Tutor of the FMP, depending on the specialty and the route chosen by each student.

In the case of students who perform the Professional Mode, the coordinator of the Module 11 "Work Placement" assigns each student to a center with a Supervisor-Tutor of the FMP. This FMP Supervisor -Tutor is a scientific in a group of a company or of a co-worker´s centre. The student will make their stay and will do the corresponding FMP. The corresponding agreement will be established between the UAB (centre-UAB) and the company.

In the case of students who take the Research Mode, the coordinator of the Module 12 : "Research Methodology" assigns each student a supervisor of the FMP. This FMP Supervisor is a researcher / Ph. D. teacher involved in the Masters, in the *Departament de Biologia Cel·lular, de Fisiologia i de Immunologia* or other departments of the UAB, and also in Research Centres linked to the UAB that assume Master´s students interested in the Research Mode. In any case, the Supervisor of the FMP is in charge of a Research issue.

In the case of the extern Supervisor, being from a research centre linked to the UAB, the student is assigned a UAB professor as academic Tutor. The tutorials made by the FMP Tutor, aim to guide students in achieving specified competence and is personalized and individualized in each case. It is based on, throughout the academic year, holding regular meetings, student -tutor / supervisor of the FMP.

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
Brief oral presentation of the results obtained in the subject developed	70%	0	0	3, 9, 6, 4, 5, 1, 2, 7, 8
Report written of developed issue	30%	0	0	3, 9, 6, 4, 5, 1, 2, 7, 8

REPORT OF THE WRITTEN FINAL MASTER´S PROJECT (FMP)

-Be written using a direct and impersonal style (for the results themselves, preferably using the Present Perfect).

-It will have a maximum length of 15 pages (excluding the title page, index, abstract, bibliography, list of acronyms and abbreviations and annex, if necessary).

-To be written in Catalan, Spanish or English.

-The correct use of the English language will imply a bonus mark of 0,5 point in the final score.

-Font of either "Times New Roman 12," or "Arial 11" and 1.5 interline spaces to be used.

-To be submitted through the Virtual Campus according to the specific schedule proposed every academic course and must be signed by the student and the tutor / supervisor.

Sections of the FMP Writen Report:

FIRST PAGE:

-Working Title.

-Name of the student and their Master Specialty (Cytogenetic or Reproductive Biology) and their Master Mode (Professional or Research).

-In the case of FMP of the Professional Mode, moreover, besides the student´s name the name and affiliation centre of the supervisor and name of the coordinator of Module 11 must be indicated. The written reports have to be signed by the student and the supervisor.

-In the case of FMP of the Research Mode, moreover, in addition to the student name the name and affiliation centre of the supervisor (and UAB Tutor if applicable) and name of the coordinator of Module 12 must be indicated. The written reports have to be signed by the student and the supervisor.

-Dated: month and year

INDEX:

Detailed and page-numbered in the report.

SUMMARY:

To consist of one paragraph of a maximum of 250 words summarizing the work done; most relevant history, methods used, results obtainedand the main conclusions.

INTRODUCTION:

Synthetic/Synthesized(¿?) introduction of literature reviewed on the state of the art (Figures and tables should be cited in the text and have a corresponding footnote and citation of the source if not self-made.

HYPOTHESIS AND OBJECTIVES:

The hypothesis and objectives of the work must be concise and synthetic/synthesized(¿?).

MATERIAL AND METHODS:

Indicate the material used.

Describe the methodology used in detail if it is innovative. If not, cite the corresponding reference.

When necessary, indicate the criteria analysis and statistical methodology applied.

RESULTS AND DISCUSSION:

-The Results may be accompanied by Tables and/or Figures with appropriate Footnote(¿?) Table / Figure(¿Esto es una repetición?) with the information given and must be cited in the text.

-The results obtained must be discussed with previously published works. Discussion of the implications of the presented work or suggestion/s of possible avenues for progress must be introduced.

These two sections can be submitted jointly or separately.

CONCLUSIONS:

The conclusions of the study should be derived directly from the work presented, preferably not more than 5, which must be numbered and be concise.

In this section, the inclusion of numbers data will be extremely limited.

REFERENCE

Collect all relevant citations mentioned in the report in a uniform format.

Cited eg: Noguchi, T., Kitawaki, J. Tamura, T., Kim, T. Kanno, H., Yamamoto, T., Okada Y, H. (1993). The connection between the A/activity of aromataseand steroid carrier leveling ováricos mujeres(Esto es castellano.) tumours in post-menopausal. Journal of Steroid Biochemistry and Molecular Biology, 44 (4-6), 657-660.

ACRONYMS LIST AND ABBREVIATIONS LIST:

Both abbreviations and acronyms must be properly defined in a specific section.

ANNEX:

Additional information of interest up to a maximum total of three pages (if applicable)

ORAL PRESENTATION OF FINAL THE MASTER´S PROJECT

Short oral presentation of the FMP (maximum 10 minutes)

It is strongly recommended that all Master´s students attend all of the Oral Presentations of FMP.

The presentation (* .doc .ppt) must include the student's name, name and affiliation of the tutor / supervisor and date.

-The presentation will be public and according to the schedule proposed at the Virtual Campus.

-The Oral presentation must be a in accordance to the written FMP previously presented.

-The /presentation/exposition will be conducted in Catalan, Spanish or English.

-The correct use of the English language during the presentation and defence of the FMP will imply a bonus mark of 0,5 point in the final score.

-The presentation will be provided through the Virtual Campus two days before the first presentation.

-First slide will content:

- the student's name
- name and FMP tutor's affiliation
- date of presentation

-At the end, each member of the Evaluation Committee may ask the student to discuss the most relevant aspects of the work presented during a maximum of 10 min.

Bibliography

The bibliography of FMP must include the relevant published works of the area and used in the development and elaboration of the FMP (Written Report and Oral presentation submitted) . All of them shall be cited in the text and included in the Reference section, in an appropriate and uniform format and properly ordered

Software

No specific software is used in this module.

Language list

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