

Syllabus

Subject

| | |
|--------------------------------|--------------------------------------------|
| Subject / Group | 11737 - Advanced Experimental Strategy / 1 |
| Degree | Master's Degree in Biomedical Research |
| Credits | 5 |
| Period | Second semester |
| Language of instruction | English |

Professors

| Lecturers | Office hours for students | | | | | |
|---------------------------------------------------------------------------------------------------------------|---------------------------|----------------|--------|------------|------------|---------------------------------------------|
| | Starting time | Finishing time | Day | Start date | End date | Office / Building |
| Priam Francesc De Villalonga Smith priam.villalonga@uib.es | 12:00 | 13:00 | Monday | 10/09/2018 | 31/07/2019 | Despatx Q3, Ed. Mateu Orfila i Rotger |
| Silvia Elena Fernández De Mattos silvia.fernandez@uib.es | 12:00 | 13:00 | Monday | 10/09/2018 | 31/07/2019 | Despatx Q3. Edifici Mateu Orfila. |

Context

This subject is a compulsory subject within the "Research in Cancer" specialization itinerary of the Master. It is a 5 ECTS subject focusing on the in-depth analysis of experimental strategy in cancer research. This subject will allow and foster the integration of knowledge from the other compulsory subjects within this module: "Molecular basis of carcinogenesis" and "Molecular Oncology". The dynamics of this subject will proceed similarly to a "Journal Club" in which students will present a selected scientific article and engage in a discussion. The lecturer will chair the discussions to ensure participation from all students and will promote the debate. The discussion will emphasize the results section of the selected articles in order to analyze the suitability of the experimental design, the methodology employed and the presentation of the data and its conclusions. The main objective of this subject is, in summary, to gain experience in the accurate analysis of scientific data in the cancer research field and to promote critical thinking.

Requirements

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Essential

A reasonably high level of english language is required (B2), and will be assessed prior enrolling to the Master.

Skills

Specific

- * Ability to properly communicate scientific proposals and research data both at an oral and written level, using an advanced level of scientific language in the context of biomedical research. .
- * Ability to interpret and use at an advanced level specialized databases and updated scientific literature in the context of biomedical research. .
- * Ability to design experiments and activities aimed at the generation of knowledge in relevant fields within the context of biomedical research. .
- * Ability to identify the most suitable techniques to solve specific problems in the context of biomedical research. .
- * Ability to apply critical thinking to analyze experimental data, draw conclusions and achieve the best decision-making strategy for the development of biomedical research. .
- * Ability to process and analyze the experimental data applying advanced statistical tools to ensure the correct interpretation of the generated data. .

Generic

- * Ability to apply critical thinking to research and to value the quality and impact of the results in the context of biomedical research .
- * Ability to manage, analyze and communicate information in the context of biomedical research. .
- * Ability to work with scientific integrity and in accordance with ethical principles in the context of biomedical research. .

Basic

- * You may consult the basic competencies students will have to achieve by the end of the Master's degree at the following address: http://estudis.uib.cat/master/comp_basiques/

Content

Range of topics

1. Presentation and discussion of selected articles

Teaching methodology

In-class work activities (1.2 credits, 30 hours)

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| Modality | Name | Typ. Grp. | Description | Hours |
|------------------------|--------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Theory classes | Presentation of the subject | Large group (G) | Presentation of the dynamics of the subject, and distribution of selected scientific articles | 1 |
| Seminars and workshops | Presentation and discussion of selected articles | Medium group (M) | The students will present an article in a session chaired by the lecturer and engage in a discussion concerning its experimental strategy. | 29 |
| Assessment | Written reports | Large group (G) | The students will produce, after each session, a written report with the conclusions of their analysis and rating of the discussed article. | |

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Aula Digital platform.

Distance education tasks (3.8 credits, 95 hours)

| Modality | Name | Description | Hours |
|-----------------------|------------------------------|--------------------------------------------------------------------------------------------|-------|
| Individual self-study | Preparation of sessions | The students will thoroughly read and analyze in detail each article prior to the session. | 15 |
| Individual self-study | Preparation of presentations | The students will prepare the presentation of a selected article to the other students. | 80 |

Specific risks and protective measures

The learning activities of this course do not entail specific health or safety risks for the students and therefore no special protective measures are needed.

Student learning assessment

Frau en elements d'avaluació

In accordance with article 33 of Academic regulations, "regardless of the disciplinary procedure that may be followed against the offending student, the demonstrably fraudulent performance of any of the evaluation elements included in the teaching guides of the subjects will lead, at the discretion of the teacher, a undervaluation in the qualification that may involve the qualification of "suspense 0" in the annual evaluation of the subject".



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Presentation and discussion of selected articles

| | |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Modality | Seminars and workshops |
| Technique | Observation techniques (non-retrievable) |
| Description | The students will present an article in a session chaired by the lecturer and engage in a discussion concerning its experimental strategy. |

Assessment criteria

Final grade percentage: 50%

Written reports

| | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Modality | Assessment |
| Technique | Papers and projects (non-retrievable) |
| Description | The students will produce, after each session, a written report with the conclusions of their analysis and rating of the discussed article. |

Assessment criteria

Final grade percentage: 50%

Resources, bibliography and additional documentation

The selected articles object of the sessions will be made available at the beginning of the course each academic term.

