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| Academic year | 2016-17 |
| Subject | 10280 - Research Seminars in Nutrigenomics |
| Group | Group 1, 1S |
| Teaching guide | B |
| Language | English |

Subject identification

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| Subject | 10280 - Research Seminars in Nutrigenomics |
| Credits | 0.45 de presencials (11.25 hours) 2.55 de no presencials (63.75 hours) 3 de totals (75 hours). |
| Group | Group 1, 1S (Campus Extens) |
| Teaching period | First semester |
| Teaching language | Spanish |

Professors

| Lecturers | Horari d'atenció als alumnes | | | | | |
|--|------------------------------|----------------|-----|------------|-------------|---|
| | Starting time | Finishing time | Day | Start date | Finish date | Office |
| María Luisa Bonet Piña luisabonet@uib.es | | | | | | You need to book a date with the professor in order to attend a tutorial. |
| Catalina Picó Segura cati.pico@uib.es | | | | | | You need to book a date with the professor in order to attend a tutorial. |

Contextualisation

TEACHING STAFF:

M^a Luisa Bonet (Dra. in Biological Sciences, University of Alicante, 1990) is associate professor of the University of the Balearic Islands and senior responsible researcher in the group of Molecular Biology, Nutrition and Biotechnology-Nutrigenomics of the UIB. Member of the Center for Biomedical Research Network Pathophysiology of obesity and nutrition (CIBERobn). Her investigation is focused on the mechanisms controlling body fat content and their interaction with nutrients (Molecular nutrition).

Catalina Picó (PhD in Biological Sciences; UIB, 1991). Professor of Biochemistry and Molecular Biology and Deputy Director of the Laboratory of Molecular Biology, Nutrition and Biotechnology-Nutrigenomics of the UIB. Member of the Center for Biomedical Research Network Pathophysiology of obesity and nutrition (CIBERobn). Her research focuses on the field of molecular nutrition and nutrigenomics, particularly in the study of obesity, the mechanisms of body weight regulation, including perinatal programming and epigenetic imprinting, and the effects of certain nutrients on these processes.

SUBJECT:

Within the context of the Official Master in Nutrigenomics and Personalised Nutrition of the UIB, this subject, obligatory in the Module 2A (Research) and of 3 ECTS credits, seeks that the students learn to make themselves research questions and to appreciate the adequacy of the experimental methods applied in scientific research, and that they get used to participate in scientific discussions and to express their opinions on research. The formation attained is to help the students in other subjects of the Master, in particular the Research Practicum and the Final Master Project.

Learning outcomes:

- To be able to critically discuss research studies in the field of nutrigenomics.
- Designing experimental studies in the field of molecular nutrition and nutrigenomics correctly



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Requirements

There are no official requirements other than those needed to access the Master studies.

Recommendable

A medium level in Biochemistry, Molecular Biology, Nutrition, Molecular Nutrition and English is highly recommended, as well as having possibilities of a fluent access to Internet .

Skills

The skills are detailed next:

Specific

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Generic

- * Ability to communicate in oral and written presentations (G10).
- * Ability to formulate hypotheses and design studies for verification (G4).
- * Ability to analyze data and draw conclusions from research results (G5).
- * Knowledge and understanding to provide a basis or opportunity for originality in developing and / or applying ideas, often within a research context (CB6).
- * Ability to collect, organize and critically analyze the research and professional literature in the discipline (G9).

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

Presentation of experimental designs and research results in recent nutrigenomics and molecular nutrition research through seminars conducted by one researcher directly involved in their attainment (from the UIB or invited) and, at the end of the course, by the students themselves, which are to present original articles in the field selected by themselves under the teachers' advice.

Theme content

- Session 1. Research seminar 1 (presented by a researcher)
- Session 2. Research seminar 2 (presented by a researcher)
- Session 3. Research seminar 3 (presented by a researcher)
- Session 4. Research seminar 4 (presented by a researcher)
- Sessions 5 & 6. Research seminars presented by the students



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Teaching methodology

Workload

The workload estimate is detailed next:

In-class work activities

| Modality | Name | Typ. Grp. | Description | Hours |
|------------------------|---|--------------------|--|-------|
| Theory classes | Research seminars conducted by researchers | Large group (G) | Presentation of original research work in nutrigenomics/ molecular nutrition by researchers directly involved in the work, followed by discussion. The presentations, as well as main related original published articles, will be made available to the students through Campus Extens. Four of these seminars will be held (sessions 1 to 4). [Students will have to deliver a summary (less than 250 words) of each of these seminars]. | 6 |
| Seminars and workshops | Research seminars conducted by the students | Medium group 2 (X) | Individually or in groups of 2-3 persons, students shall present orally in public an original research article in nutrigenomics/ molecular nutrition, emphasising experimental designs and methodological aspects. The presentation cannot exceed 15 min, plus 5 min discussion. | 3 |
| ECTS tutorials | Tutorials | Small group (P) | Resolution of concrete doubts through direct dialogue between the teacher and the students. | 1 |
| Assessment | Exam | Large group (G) | Exam consisting in short-answer questions on the contents of the research seminars conducted by researchers hold during the course, as well as general questions on research methods and techniques in nutrigenomics/molecular nutrition. | 1.25 |

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 Campus Extens platform.

Distance education work activities

| Modality | Name | Description | Hours |
|-----------------------|-----------------------------------|---|-------|
| Individual self-study | Reading of recommended literature | Reading of original research articles related to the contents of the research seminars presented in sessions 1 to 4. This activity will help the students to get used to the scientific language and with the written presentation of research results. It will also help them preparing the summary of each of these seminars they are to deliver. | 8.75 |

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| Modality | Name | Description | Hours |
|--------------------------------|---|---|-------|
| Individual self-study | Selection of candidate articles for seminars | On an individual basis, students have to select 4 original research articles in nutrigenomics/molecular nutrition that they consider appropriate for presentation in seminar. The list of these 4 articles has to be delivered to the teachers, including a short justification of their selection (i.e. why the student thinks these particular articles are of special interest). | 10 |
| Individual self-study | Summary of research seminars presented by researchers | Students are to deliver a summary of each of the research seminars presented in sessions 1 to 4 (less than 250 words per seminar summary). | 15 |
| Group or individual self-study | Preparation of the research seminar | Individually or in groups of 2-3 persons, and under the teachers' advice, students are to select one original research article in nutrigenomics/molecular nutrition and to prepare its oral presentation using power point. | 30 |

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

There are two possible itineraries:

- Itinerary A (continuous evaluation): it implies the regular assistance and participation in the attended activities of the course.
- Itinerary B: designed for those students that cannot assist regularly to the attended activities of the course.

Students are encouraged to follow itinerary A.

Each element of evaluation will be scored 0 to 10. The final mark of the subject will be the powdered media of the marks obtained in each element of evaluation. To pass the subject, this powdered medium should be 5 or more. If lower, activities specified as recoverable can be recovered in September.

Research seminars conducted by researchers

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| Modality | Theory classes |
| Technique | Attitude scales (non-retrievable) |
| Description | Presentation of original research work in nutrigenomics/molecular nutrition by researchers directly involved in the work, followed by discussion. The presentations, as well as main related original published articles, will be made available to the students through Campus Extens. Four of these seminars will be held (sessions 1 to 4). [Students will have to deliver a summary (less than 250 words) of each of these seminars]. |
| Assessment criteria | Assistance |

Final grade percentage: 20% for the training plan A

Final grade percentage: 0% for the training plan B

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Research seminars conducted by the students

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| Modality | Seminars and workshops |
| Technique | Papers and projects (non-retrievable) |
| Description | Individually or in groups of 2-3 persons, students shall present orally in public an original research article in nutrigenomics/molecular nutrition, emphasising experimental designs and methodological aspects. The presentation cannot exceed 15 min, plus 5 min discussion. |
| Assessment criteria | Related to their own seminar: degree of insight into and understanding of the work; clarity of the exposition; degree of preparation of the presentation; coordination and distribution of work among group members, if pertinent; degree of maturity in the answers to the questions arising during the discussion period. Related to the other students' seminars: assistance and participation in their evaluation. |
| Final grade percentage: | 40% for the training plan A |
| Final grade percentage: | 0% for the training plan B |

Exam

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| Modality | Assessment |
| Technique | Short-answer tests (retrievable) |
| Description | Exam consisting in short-answer questions on the contents of the research seminars conducted by researchers hold during the course, as well as general questions on research methods and techniques in nutrigenomics/ molecular nutrition. |
| Assessment criteria | Quantity and quality of the answers to the questions. |
| Final grade percentage: | 0% for the training plan A |
| Final grade percentage: | 50% for the training plan B |

Selection of candidate articles for seminars

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| Modality | Individual self-study |
| Technique | Student internship dissertation (non-retrievable) |
| Description | On an individual basis, students have to select 4 original research articles in nutrigenomics/molecular nutrition that they consider appropriate for presentation in seminar. The list of these 4 articles has to be delivered to the teachers, including a short justification of their selection (i.e. why the student thinks these particular articles are of special interest). |
| Assessment criteria | Adequacy of the selected articles and reasoned justification of their selection. |
| Final grade percentage: | 10% for the training plan A |
| Final grade percentage: | 0% for the training plan B |



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Summary of research seminars presented by researchers

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| Modality | Individual self-study |
| Technique | Student internship dissertation (retrievable) |
| Description | Students are to deliver a summary of each of the research seminars presented in sessions 1 to 4 (less than 250 words per seminar summary). |
| Assessment criteria | Number of summaries delivered (out of 4 in total) and originality, quality and synthetic power of the summaries. |

Final grade percentage: 30% for the training plan A

Final grade percentage: 50% for the training plan B

Resources, bibliography and additional documentation

The bibliography for the preparation of this subject will be updated and provided to students according to the seminars to be held.

Basic bibliography

The presentations of the research seminars held during the course will be made available to the students through Campus Extens.

Complementary bibliography

The pdf of the original research articles presented in the course seminars will be made available to the students through Campus Extens.

Other resources

Autonomous utilization of bibliographical data bases (e.g. MedLine).

