

68764 - Advances in nutrition, diet and health

Syllabus Information

Academic year: 2023/24

Subject: 68764 - Advances in nutrition, diet and health

Faculty / School: 105 - Facultad de Veterinaria

Degree: 631 - Master's Degree in Food Quality, Safety and Technology

ECTS: 3.0

Year: 1

Semester: First semester

Subject type: Optional

Module:

1. General information

This subject is part of the specialization itinerary of the master's degree, so its contents are applied to the field of innovation and development of new foods that have an effect on health.

Its main objective is to understand the demands of today's consumers (concerned about the relationship between diet and health, but also about the sustainability of the food system, within the framework of a circular economy), as well as the response of the food industry to these new demands.

These approaches and objectives are aligned with the United Nations Sustainable Development Goals (SDGs) 2, 3, 4, 6, 12 and 14.

2. Learning results

1. To update the knowledge of foods and bioactive compounds of importance in the diet and their impact on health; to know their natural sources, design, formulation, structure, bioavailability, effects of processing, health properties and legal regulations.
2. To become familiar with the scientific assessment system of the foods and components mentioned, in addition to the specific requirements of their labelling.
3. To critically analyse publications and/or scientific reports on these foods and components, both in Spanish and English.
4. To present orally a work on a functional and ecological food, bioactive food component, which constitutes a breakthrough in the field of nutrition, food and health.

3. Syllabus

Theoretical program:

- Introduction: Current food problems, SDGs, current consumption trends, strategic lines of research, food industry response.
- General Concepts
- Functional foods: general concepts, design, nutritional and health declarations, scientific assessment
- Bioactive components of the diet
- Phenolic compounds
- Foods for specific population groups
- Food supplements
- Organic food: general concepts, hygienic, nutritional and organoleptic quality, legal aspects.

Practical program:

- Determination of antioxidant activity
- Sensory evaluation of organic food

4. Academic activities

- Participative master class: Presentation and discussion in the classroom.

- Problem solving and case studies: students conduct specific information searches on the Internet and solve case studies.
- Laboratory practices: antioxidant activity and sensory evaluation of organic foods.
- Teaching assignment: Preparation and oral presentation of an individual piece of work on a topic relevant to the subject. Students will be required to analyse and highlight the scientific aspects of publications and reports on the chosen topic, to critically assess them and to demonstrate oral communication skills during the presentation.
- Personal study.
- Assessment
- Individual tutoring: Face-to-face or virtual sessions to solve doubts.

5. Assessment system

Continuous assessment

It consists of several evaluation tests. In order to pass the subject in this modality it is necessary that the weighted average of the grades obtained in the different assessment tests is equal or higher than 5 points out of 10.

The assessment tests will consist of:

- **Submission of written self-checks of the contents of the theoretical program (40%):** They will consist of short questions and multiple-choice questions on specific aspects of the contents of the theoretical program. These self-checks will be carried out during the different sessions of master classes and problem solving and case studies. Assessment criteria: to show the ability to interrelate the different concepts of the subject; to have exercised the ability to search for information and to analyse it critically.
- **Questionnaire and report on the practice of sensory evaluation of organic food (10%):** Students must answer a questionnaire and write a report after the practice of sensory evaluation of organic food, and must submit it to the teacher within the deadline. Assessment criteria: ability to obtain results from data collected in sensory evaluations, clarity of presentation (tables and graphs), writing and interpretation of results, quality of report presentation.
- **Drawing up, oral presentation and defence of the teaching work (50%):** The student must deliver the work within the deadline established by the teacher. The oral presentation and defence will take place in the last two scheduled sessions of the subject. Assessment criteria: the scientific quality of the work, as well as the ability to summarise, the clarity of the exposition, the orderly and didactic structure of the presentation, the coherence of the reasoning, the critical capacity and the defence during the subsequent debate.

Global assessment.

It consists of several evaluation tests, which will take place on the dates established by the centre, within the ordinary and extraordinary examination periods. In order to pass the subject in this modality it is necessary that the weighted average of the grades obtained in the different assessment tests is equal or higher than 5 points out of 10.

The assessment tests will consist of:

- **Written test of the theoretical and practical contents of the program (50%):** It will consist of short and open-ended questions. Assessment criteria: to show the ability to interrelate the different concepts of the subject; to have exercised the ability to search for information and to analyse it critically.
- **Elaboration, oral presentation and defence of the teaching work (50%):** The student must conduct the oral presentation and defence of the work in front of the teacher. Assessment criteria: the scientific quality of the work, as well as the ability to summarise, the clarity of the exposition, the orderly and didactic structure of the presentation, the coherence of the reasoning, the critical capacity and the defence during the subsequent debate.