

29233 - Functional Foods

Syllabus Information

Academic year: 2024/25

Subject: 29233 - Functional Foods

Faculty / School: 229 - Facultad de Ciencias de la Salud y del Deporte

Degree: 441 - Degree in Human Nutrition and Dietetics

ECTS: 6.0

Year: 4

Semester: First semester

Subject type: Optional

Module:

1. General information

The objectives of the subject include:

1. To study the bioactive compounds of functional foods and their physiological effects.
2. To know design and production strategies, labelling, nutrition and health claims for functional foods
3. To value functional food as an aid to meet nutritional needs in at-risk groups, as well as nutraceutical supplementation to alleviate the risks of nutritional deficiencies.
4. To apply the scientific fundamentals of functional food and nutrition, in different physiological and pathological situations, with the objective of reducing the risk of disease or contributing to its management.

These objectives are aligned with Sustainable Development Goal (SDG) 3 of the United Nations 2030 Agenda, which aims to ensure healthy lives and promote well-being.

2. Learning results

In order to pass this subject, the students shall demonstrate they has acquired the following results:

- To distinguish with scientific basis all those terms related to functional nutrition.
- To base and elaborate dietary plans, in relation to physiological situations and pathologies of certain relevance, applying the knowledge acquired in this subject.
- To know and plan "dietetic-nutritional education programs" in the field of functional nutrition, following correct dietary guidelines.
- To prescribe the specific treatment corresponding to the field of competence of the dietitian-nutritionist.
- To base the scientific principles that support the intervention of the dietitian-nutritionist, subjecting their professional performance to scientific evidence.
- To critically appraise and use sources of information related to functional food.

3. Syllabus

The theoretical content includes:

1. Introduction and general information. Basic concepts, objectives and target functions of functional components. Organic food.
2. Functional foods: Health declarations, production strategies, regulation, labelling and advertising.
3. Physiological effects of the main functional foods and their functional ingredients.
4. Clinical applications of key phytochemicals, functional food ingredients and nutraceuticals. Fortified foods. Gene-diet interactions.

Practical content includes:

1. Problems and questions to be solved by the students with the help of audio-visual material and the teacher.
2. Practical sessions dedicated to study different biological components potentially active in physiological and physiological pathological situations.

4. Academic activities

1. Theoretical classes (25 hours): It includes lectures with the objective of introducing the program of the subject through a teaching model based on progressivity and feedback acquisition of knowledge.
2. Problems and cases (20 hours): Supported by audiovisual projections, problems and cases related to functional foods and bioactive compounds, as well as their physiological effects, among others, are developed and discussed.
3. Laboratory practices (15 hours): Based on problem-based learning, studying aspects such as: labelling, nutritional properties and health declarations, different bioactive compounds and their physiological effects in physiological and pathophysiological situations, probiotics/prebiotics, etc.
4. Autonomous work of the student and study of the subject (60 non face-to-face hours).
5. Assessment tests (6 hours)

5. Assessment system

Tests for students who have opted for the continuous assessment (attendance \geq 80% practices):

1. Individual written test: It will include the evaluation of theoretical-practical contents, accounting for 70% of the final grade.*
2. Tasks and activities developed in the practices: The percentage of attendance to the practices will be taken into account (\geq 80%), the level of participation and individual demand of each student demonstrated throughout the term, and the development of tasks requested by the teachers will be taken into account. It accounts for 30% of the final grade.*

Tests for students who have opted for the global evaluation (attendance < 80% practical):

1. Individual written test: It will include the evaluation of theoretical-practical contents, accounting for 70% of the final grade.*
2. Extra individual written test: It will include questions related to the practical content developed in the subject, accounting for 20% of the final grade.**
3. Work on practices: Elaboration of a paper on several of the practices developed and/or the presentation of a designated practical topic. It accounts for 10% of the final grade*

** In these tests, both individually and globally, a minimum grade of 5 out of 10 will be required to pass.*

6. Sustainable Development Goals

- 3 - Good Health & Well-Being