

29209 - Food Science

Syllabus Information

Academic Year: 2022/23

Subject: 29209 - Food Science

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

Degree: 441 - Degree in Human Nutrition and Dietetics

ECTS: 12.0

Year: 2

Semester: Annual

Subject Type: Compulsory

Module:

1. General information

1.1. Aims of the course

The aim of this course is to acquire knowledge about foods in depth, especially in regard to their chemical composition and nutritional value, so that students can select them wisely in the preparation of diets. As well, to know the wide range of foods offered the market in order to respond to individual tastes or particular cases.

2. Learning goals

2.1. Competences

1. Identify and classify foods, food products, and food ingredients.
2. Know its chemical composition, its physicochemical properties, its nutritional value and its organoleptic characteristics.
3. Know and apply the fundamentals of food science and sensory analysis in food products.
4. Interpret and manage databases and food composition tables.
5. Advise on food products labelling in accordance with current legislation.
6. Recognize the need to maintain and update professional competence, giving special importance to learning, autonomously and continuously, new scientific knowledge and market products.

2.2. Learning goals

The student, to pass this subject, must demonstrate the following learning goals...

1. Demonstrate wide knowledge and practical application of different foods, their chemical composition, their nutritional value, and their properties in different contexts.
2. Manage and interpret in a practical way databases and food composition tables.
3. Know how to apply physicochemical analysis to know the composition and quality of food.
4. Know and apply the current legislation on food labeling.

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures and practice sessions.

4.2. Learning tasks

This 12 ECTS course is organized as follows:

- **Lectures** (2.72 ECTS: 68 hours). The professor will present theoretical contents. Classroom materials (lecture and seminars notes) will be available via Moodle.
- **Practice sessions and computer sessions** (1.28 ECTS: 32 hours). Students are divided into medium-sized groups. Students will work individually or in groups actively doing problems or exercises related to syllabus.
- **Laboratory sessions** (0.8 ECTS: 20 hours). Students are divided into small groups. The students will carry out tasks related to the identification, classification, sensory evaluation and physico-chemical analysis of foods.
- **Assessment** (0.32 ECTS: 8 hours). Students will do an individual objective exam.
- **Autonomous work and study** (6.88 ECTS: 172 hours).

4.3. Syllabus

This course will address the following topics:

- Food Science: general concepts
- Chemical composition and nutritional value of food
- Sensory properties of food
- Food quality
- Food spoilage
- Food additives
- Milk and dairy products
- Eggs and egg products
- Meat and meat products
- Fish and fish products, crustaceans and mollusks
- Fruits and fruit products. Nuts. Vegetables and tubers.
- Cereals and cereal products (flours, bread and pasta products). Other cereal products.
- Legumes
- Edible mushrooms
- Edible fats and oils
- Sugars. Honey
- Coffee, tea and cocoa products
- Spices, salt and vinegar
- Tap water and mineral water. Soft and alcoholic drinks.
- Ready-to-eat meals
- Functional food
- Food for vegetarian diets
- Food from other culinary cultures
- Genetically modified food
- Organic food
- Databases and food composition tables
- Food analysis and evaluation of sensory properties in food
- General labelling requirements and nutrition labelling for foodstuffs
- Other protein sources.

4.4. Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Health and Sport Sciences website and Moodle.

4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=29209>