Universidad Zaragoza

Year : 2020/21

29210 - Food: Biochemistry and Technology

Syllabus Information

Academic Year: 2020/21
Subject: 29210 - Food: Biochemistry and Technology
Faculty / School: 229 - Facultad de Ciencias de la Salud y del Deporte
Degree: 441 - Degree in Human Nutrition and Dietetics
ECTS: 9.0
Year: 2
Semester: Annual
Subject Type: Compulsory
Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

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, seminars, problem-solving, case studies, laboratory sessions, visits and assignments.

4.2.Learning tasks

This course is organized as follows:

- Lectures: 60 hours
- Laboratory practical sessions: 15 hours
- Seminars and problem-based sessions: 5 hours
- Technical visits: 10 hours
- Project work (individual): 15 hours
- Assessment: 3 hours
- Autonomous work and study

4.3.Syllabus

This course will address the following topics:

- **Section 1. Introduction**
    - Contents: Presentation. Introduction to Food Science and Technology. Properties of food. Food quality.
- **Section 2. Food Chemistry**
    - Contents: Water. Carbohydrates. Proteins. Lipids. Enzymes. Pigments. Vitamins and minerals. Flavour. Integration.
- **Section 3. Food preservation and processing**
    - Contents: Basic principles. Heat processing. Chilling preservation and freezing. Preservation by controlling water. Acidification and fermentation. Chemical preservation. Packaging. Controlled and modified atmosphere storage and packaging. Emerging technologies. Hurdle technology and combined methods.
- **Section 4. Food process technology**
    - Contents: Milk and dairy products. Meat and meat products. Fish and fishery products. Egg and egg products. Fruit and vegetable science and technology. Cereal and cereal products.

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://biblos.unizar.es/br/br_citas.php?codigo=29210&year=2020