

## 29210 - Food: Biochemistry and Technology

### Información del Plan Docente

<b>Academic Year</b>	2018/19
<b>Subject</b>	29210 - Food: Biochemistry and Technology
<b>Faculty / School</b>	229 - Facultad de Ciencias de la Salud y del Deporte
<b>Degree</b>	441 - Degree in Human Nutrition and Dietetics
<b>ECTS</b>	9.0
<b>Year</b>	2
<b>Semester</b>	Annual
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

### **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 learning process designed for this course will consist of:**

Attendance to classroom activities (lectures, seminars, problems resolution and case studies using participatory approaches), laboratory sessions, technical visits and attendance to food fairs. Students will also prepare a short written essay about a foodstuff.

All activities involve a load of autonomous learning for the achievement of the learning outcomes.

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### 4.2.Learning tasks

The following activities are included:

- Lectures: 60 hours
- Laboratory practical sessions: 15 hours
- Seminars and problem-based sessions: 5 hours
- Technical visits: 10 hours

Project work (individual or group work): 15 hours

Assessment: 3 hours

Autonomous student learning

### 4.3.Syllabus

The program will give students foundation knowledge of food chemistry and food processing and will consist of:

#### Module 1. Introduction

Contents: Presentation. Introduction to Food Science and Technology. Properties of food. Food quality.

#### Module 2. Food Chemistry

Contents: Water. Carbohydrates. Proteins. Lipids. Enzymes. Pigments. Vitamins. Minerals. Flavour. Integration.

#### Module 3. Food preservation and processing

Contents: Basic principles. Heat processing. Chilling preservation and freezing. Preservation by controlling water, pH in food preservation. Fermentation technology. Chemical preservation. Packaging. Controlled and modified atmosphere storage and packaging. Emerging technologies. Hurdle technology and combined methods.

#### Module 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. Technology of oils and fats. Cereal and cereal products.

### 4.4.Course planning and calendar

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The planning will be delivered through the UZ ADD/Moodle system

### **4.5. Bibliography and recommended resources**