

## 30822 - General Food Hygiene

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 30822 - General Food Hygiene

**Faculty / School:** 105 - Facultad de Veterinaria

**Degree:** 568 - Degree in Food Science and Technology

**ECTS:** 6.0

**Year:** 3

**Semester:** First semester

**Subject type:** Compulsory

**Module:**

### 1. General information

The general objective of this subject is for students to acquire knowledge, skills and abilities that will enable them to identify prevention and control measures for the different hazardous agents that can contaminate food at any stage of the food chain, as well as the factors that affect their presentation.

The approaches and objectives of the subject are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030, so that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement

Goal 2: Zero hunger.

Goal 3: Health and wellness.

Goal 4: Quality Education.

Goal 6: Clean water and sanitation.

Goal 7: Affordable and Clean Energy

Goal 12: Responsible Production and Consumption

Goal 17: Alliances to Achieve Objectives.

### 2. Learning results

1. Know the main terms associated with the concept of food hygiene and safety and the fundamentals of food hygiene.
2. Identify hazardous agents of any kind that may be present at any stage of the food chain.
3. Analyse the contributing and triggering factors that determine the presence and survival of hazard agents in food.
4. Know the main morbid syndromes caused by food hazards, to identify their causes and to evaluate their epidemiology in order to propose preventive measures and immediate action for their control.
5. Identify the hygienic requirements to be implemented in food industries and establishments and be able to organize sanitation measures in the food industry.
6. Train food handlers from the hygienic point of view.
7. Establish a correct and effective oral and written communication in Spanish and a more comprehensive reading in English.

### 3. Syllabus

#### **Block I.- Concept and fundamentals of Food Hygiene.**

Concept of food hygiene, food safety and food suitability for consumption.

Global approach to the food chain.

#### **Block II.- Hazards transmitted by or naturally occurring in foods**

Introduction to food toxicology

Prevention and control of natural food toxicity.

Characteristics and measures for the prevention and control of food contamination by:

- Food allergens.
- Chemical contaminants of environmental origin.
- Chemical residues from animal health treatments and feed additives
- Chemical waste from pesticide treatments
- Toxics associated with industrial processing and preparation of foodstuffs
- Biological hazards: bacteria, viruses and parasites.
- Mycotoxins and biogenic amines

### **Block III.- Hygiene in food production and processing**

Hygiene in primary production.

General principles of hygiene in food production: design and maintenance of premises, equipment and utensils; cleaning and disinfection in the food industry; pest control; waste disposal; water disinfection; control of operations; personnel hygiene.

## **4. Academic activities**

**Master classes (37 h).** They will be participatory and the contents detailed in the program will be presented in a reasoned manner.

### **Practices in computer classroom (14 h):**

- Practice 1. Sources of information in the field of food hygiene. Applied computer classroom study of food infections and intoxications: evolution of epidemiological data, knowledge of contamination sources and outbreak propagation system.
- Practices 2, 3, 4 and 5. Applied study focused on the search and interpretation of information related to the characteristics, prevention and control of food contamination by chemical (2 and 3) and biological (4 and 5) hazardous agents.

### **Laboratory practices (9 h):**

- Practice 6. General principles of hygiene in the food industry (I).
- Practice 7. General principles of hygiene in the food industry (II).
- Practice 8. General principles of hygiene in the food industry (III).

## **5. Assessment system**

**1: Comprehensive written exam (75%).** Individual written test with short and developmental questions in two parts:

Test I (45%). Assessment of the knowledge of the characteristics of contamination by hazardous food agents and the measures for their prevention and control.

Test II (30%). Assessment of knowledge of the General Principles of Hygiene in the food industry.

Test II may also be passed during the class period by completing the following two activities:

- Practical test (50%) on issues related to the work done in the laboratory practices
- Individual written exam (50%)

It will be necessary to obtain a grade  $\geq 4.0$  on both tests to average.

Assessment criteria: knowledge of the subject, written expression, reasoning of the answers, correct use of the terminology of the subject.

The grade obtained in the overall written exam will be kept until the next exam of the same academic year as long as a grade  $\geq 5/10$  is obtained. A grade  $\geq 4.0$  on Tests I and II will be required for averaging.

### **2: Practical knowledge test (25%)**

It will be carried out by performing the following tests:

- **Test I (50% of the grade of the practical part).** Presentation and discussion of a paper on a hazardous chemical agent. The grade obtained will be the result of:
  - Presentation and discussion of the work done in group (30%) and
  - Completion of an individual questionnaire (20%), scheduled at the end of the practical sessions.

Assessment criteria: ability to search, analyse and process information; ability to communicate and express, ability to relate acquired knowledge.

In the case of not attending the practices, obtaining an average grade in both tests lower than 5.0, or if the student wishes to waive the grade obtained, the student must take an individual evaluation on this part of the subject coinciding with the overall written exam consisting of an individual written work in which the student will have to answer a series of questions related to the

characterization of the chemical food hazard worked on in the practical sessions and which must be defended by the student in front of the responsible teacher.

- **Test II (50% of the grade of the practical part)**- Presentation and discussion of a paper on a biohazardous agent . The same procedure and criteria as described for the chemical hazard agent shall be followed.

To obtain the final grade it is mandatory to take the two exams (written and practical knowledge) and to achieve in each of them a minimum grade of 5 points out of 10. Passing the practical knowledge test will be valid in the two calls of the following academic year.