

## 26222 - General Food Hygiene

### Información del Plan Docente

Academic Year	2016/17
Academic center	105 - Facultad de Veterinaria
Degree	294 - Degree in Food Science and Technology
ECTS	6.0
Course	3
Period	First semester
Subject Type	Compulsory
Module	---

### 1. Basic info

#### 1.1. Recommendations to take this course

#### 1.2. Activities and key dates for the course

### 2. Initiation

#### 2.1. Learning outcomes that define the subject

#### 2.2. Introduction

### 3. Context and competences

#### 3.1. Goals

#### 3.2. Context and meaning of the subject in the degree

#### 3.3. Competences

#### 3.4. Importance of learning outcomes

### 4. Evaluation

### 5. Activities and resources

#### 5.1. General methodological presentation

The course learning process has been developed as follows:

The learning process of the course is based on theoretical exposition activities developed by the teacher and practical sessions carried out by groups of students. Practical sessions (Laboratory and computer tools) are focused on looking into theoretical aspects developed in lectures.

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Learning material will be available for the student to develop theoretical and practical activities through the University digital platform. These sessions are supported by tables, graphics and also scientific documents in English to acquire scientific terminology in this language.

### 5.2.Learning activities

The learning activities scheduled include 40 hours of participatory lectures and 6 practical sessions of 3 hours each related to identification and characterization of biotic and abiotic hazards.

The development of practical sessions is performed by the students. Different topics are assigned by the teacher to make a power point presentation in groups. Likewise, an individual work is also evaluated.

### 5.3.Program

The proposed program offered to the student focused on achieving the expected results includes the following activities:

#### 1: Development of lectures.

#### 1st Block.- General aspects and concepts related to Food Hygiene

- Concepts of Food Hygiene, Food Safety, Food Security and Aptitude for human consumption.
- Global approach in the Food chain.

#### 2nd Block. - Food-borne hazards (Anthropogenic sources, natural contamination...)

- Introduction to food toxicology: Food contaminants: Concepts and classification. Toxicological assessment.
- Natural toxins in Food: Plant and animal derived toxins, toxins derived from mushroom, marine biotoxins.

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- Food allergens.
- Types and sources of abiotic contamination in food.
- Origin and prevention of environmental contaminants.
- Residues of veterinary drugs in foodstuffs: Origin and prevention
- Origin and prevention of contaminants produced in the manufacturing and preparation processes in the food industry.
- Types and sources of biotic contamination in food.
- Biological hazards: Bacteria, viruses, parasites. Main foodborne diseases. Origin and prevention of mycotoxicosis.

### 3rd Block.- Food Hygiene in the production and manufacturing of food.

- Hygiene in primary production.
- Hygiene in establishments, equipment and work utensils: Design, maintenance, cleaning and disinfection, pest control, residues management, water control.
- Staff hygiene in food industry: Health status, personal care, culinary food handlers behavior.

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### 2. Development of practical sessions

**Practice nº 1.-** Sessions in computer classroom: Evolution of epidemiological data of infections and food poisoning outbreaks. Knowledge of contamination sources and propagation system of outbreaks.

Approach of hygienic control measures in food processes. Food hazard characterization. Control of antimicrobial residues in food. Parasites detection in food.

Practices nº 2, 3, 4 y 5. Food hazard characterization.

It will be developed in four sessions. Every group of students will be commissioned, at least, one study of abiotic contamination and another one of biotic contamination, focused on making a power point presentation and afterwards discussing the cases with other students.

**Practice nº 6.** Cleaning and disinfection in food industry. Water control in food industry. Hygiene in heat treated food.

### 5.4.Planning and scheduling

Schedule sessions and presentation of works

Dates sessions will be described in detail together with those of other tasks and subjects, along with the rest of subjects of third course in the Degree of Food Science and Technology on the website of the Faculty of Veterinary Medicine: <http://veterinaria.unizar.es/gradocta/> . This link will be updated at the beginning of each academic year.

### 5.5.Bibliography and recommended resources

see spanish version