

Academic Year/course: 2021/22

30822 - General Food Hygiene

Syllabus Information

Academic Year: 2021/22

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

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is based on lectures and practical sessions carried out by groups of students. Practical sessions (Laboratory and informatic tools) are focused on looking into theoretical aspects developed in lectures.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available for the student via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

Further information regarding the course will be provided on the first day of class.

Students must follow the regulations described in:

- Prevention: A guide for students at the University of Zaragoza:
https://uprl.unizar.es/sites/uprl.unizar.es/files/archivos/Procedimientos/guia_preventiva_para_estudiantes.pdf
- Manual de seguridad en los laboratorios de la Universidad de Zaragoza y normas marcadas por la Unidad de Prevención de Riesgos Laborales:

<https://uprl.unizar.es/inicio/manual-de-procedimientos>

https://uprl.unizar.es/sites/uprl.unizar.es/files/archivos/Procedimientos/manual_de_seguridad_en_los_laboratorios_de_la

In addition, students will follow as well any instructions related to biosecurity given by the professor

4.2. Learning tasks

The course includes the following learning tasks:

38 hours of participatory lectures, 2 hours of seminars and 7 practical sessions of 2/3 hours each related to:

- information resources in food hygiene (1 session in computer classroom)
- identification and characterization of biotic and abiotic hazards (4 sessions in computer classroom)

- general principles of food hygiene (2 sessions in pilot plant)

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

4.3. Syllabus

The course will address the following topics:

1st Section.- 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 Section. ? Food-borne hazards (Anthropogenic sources, natural contamination?)

- Introduction to food toxicology: Food contaminants: Concepts and classification. Toxicological assessment.
- Natural toxins in Food
- 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 Section.- 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.

2. Practical sessions

- **Practice nº 1.-.** Sessions in computer classroom: Information resources. Evolution of epidemiological data of infections and food poisoning outbreaks. Knowledge of contamination sources and propagation system of outbreaks.
- **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 powerpoint presentation and afterwards discussing the cases with other students.
- **Practice nº 6.** General principles of food hygiene I. Approach of hygienic control measures in food processes. Inspection of the raw materials (control of antimicrobial residues in food), heat treatment effectiveness (alpha-amylase test, alkaline phosphatase test), water control (chemical and microbiological hazards).
- **Practice nº 7.** General principles of food hygiene II. Cleaning and disinfection in food industry (Evaluation of the disinfectant efficacy and the verification of cleaning and disinfection operations).

4.4. Course planning and calendar

For further details concerning the timetable, classroom and further information regarding this course please refer to 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.