

**COURSE DATA****Data Subject**

Code	36370
Name	Food safety
Cycle	Grade
ECTS Credits	4.5
Academic year	2019 - 2020

Study (s)

Degree	Center	Acad. year	Period
1212 - Degree in Gastronomic Sciences	Faculty of Pharmacy and Food Sciences	2	Second term

Subject-matter

Degree	Subject-matter	Character
1212 - Degree in Gastronomic Sciences	12 - Food safety	Obligatory

Coordination

Name	Department
BERRADA RAMDANI, HOUDA	265 - Prev. Medicine, Public Health, Food Sc.,Toxic. and For. Med.
FERNÁNDEZ FRANZÓN, MÓNICA	265 - Prev. Medicine, Public Health, Food Sc.,Toxic. and For. Med.
JUAN GARCIA, ANA	265 - Prev. Medicine, Public Health, Food Sc.,Toxic. and For. Med.

SUMMARY

The subject of food safety (36370) is mandatory second year Bachelor of Gastronomic Sciences, taught at the Faculty of Pharmacy of the University of Valencia. In the current curriculum it consists of a total of 4.5 ECTS taught twice a year.

The main objectives are:



i) To provide students with the necessary knowledge on food safety to be able to know the principles and common responsibilities to achieve a high level of health protection.

ii) To acquire knowledge leading to the toxicological risk assessment and prevention thereof

For this knowledge is provided:

- Basic Toxicology
- Toxic substances in food
- Preventing food poisoning
- Risks evaluation

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

To study occupational hazards and environmental toxicology, the knowledge of a number of basic concepts that are part of the content of the subjects taught during the previous courses of grade is necessary.

OUTCOMES

1212 - Degree in Gastronomic Sciences

- Know and know how to apply the hygienic and preventive measures against the main food alterations produced by biological and chemical components.
- Manage and handle food from a food safety perspective.

LEARNING OUTCOMES

- To know the general aspects of toxins in food and poisonings.
- To handle food safety of raw materials, technological processes and cooked foods.
- To know the risks associated with food consumption.
- To know the main diseases caused by toxic food.



- To know how to use the toxicological information relating to food.
- To know the basics of food hygiene, processes and products

DESCRIPTION OF CONTENTS

1. Introduction to Food Hygiene

Definition. Concepts of Food Codex Food security

2. . Cleaning and disinfection: Definitions. Types of dirt Cleaning process. Garbage Detergents and disinfectants.

3. Specific quality regulations in the food sector. Definitions contemplated in food legislation. General and specific principles.

4. Basis of toxicology. Toxicological concepts Phases of toxic action. Biotransformation reactions.

5. Toxic substances of natural origin. Marine foods. Antinutritive substances Mushrooms.

6. Biological contaminants present in food. The main foodborne pathogens. The main methods and procedures to prevent food poisoning and food poisoning

7. Fluorides, Nitrates and Nitrites.

8. Mycotoxins. Toxic effects. Prevention of contamination

9. Metals and other environmental and industrial pollutants

**10. Pesticides. Toxic effects. Maximum residue limit****11. Veterinary residues. Toxic effects. Legislation.****12. Food additives. Classification, legislation and toxicological aspects.****13. Food allergies and intolerances****14. Toxics derived from food processing, preparation and storage.****15. Food alerts. Procedures to follow in food poisoning. Food Alert Statement Risk assessment. Alerts and Food Crisis Management. SCIRI Management of food notifications.****WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	45,00	100
Study and independent work	67,50	0
TOTAL	112,50	

TEACHING METHODOLOGY

The development of the course will be structured as follows:

Theoretical classes will include 3 hours a week aimed at the presentation by the teacher of the most important concepts and contents of each issue in order that the students acquire the knowledge related to the subject, encouraging participation.

Classroom practical classes: problem solving and cases.- In these classes will take place the specific application of knowledge that the students have acquired in the theory classes.

Seminars.- The seminars will be used to enhance teamwork and improve oral presentation, by performing theoretical and practical training to complement that is acquired in class work, and also for another series of complementary activities types varied (case studies, management of scientific literature, discussion of current issues).



Study Preparation Seminars, Classes and Individual Work Hours Exams.- intended for reading and preparing lessons, exam preparation and work to exhibit in seminars

EVALUATION

Compulsory examination of all the contents taught. The possibility of carrying out written tests throughout the course is contemplated. (90%)

Continuous evaluation by the teaching staff of the subject, the result of contact with students in any of the sections of the learning process. (10%)

REFERENCES

Basic

- T Repetto M, Repetto G. Toxicología Fundamental. 4 ed, Díaz de Santos, Madrid, 2009.
- Klaassen CD, Watkins JB. Casarett y Doull fundamentos de Toxicología. Mc Graw-Hill Interamericana, Madrid (2005).
- Ballantyne B, Marrs TC, Syversen T. general and Applied Toxicology. 3rd ed. Wyley & Sons, West Sussex, 2009.

Additional

- Cameán A, M Repetto. Toxicología Alimentaria. Díaz de Santos, Madrid 2006.
- TBallantyne B, Marrs TC, Syversen T (2009) General & Applied Toxicology. 3rd ed. Wyley & Sons, West Sussex exto referencia
- Hayes AW (2009) Principles and Methods of Toxicology. Taylor & Francis, London.

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

1. Contenidos

Se mantienen las unidades temáticas inicialmente recogidas en la guía docente de la asignatura.



2. Volumen de trabajo y planificación temporal de la docencia

En particular, los contenidos **teóricos** de la unidad 8 hasta la unidad 15 se imparten mediante videoconferencias. El tiempo de dedicación total en términos de cómputo de ECTS no se modifica, pero se produce un trasvase de 18 horas presenciales a **no** presenciales.

Las sesiones de **tutoría** se realizarán de forma on-line, mediante videoconferencia, en los horarios previstos en el calendario académico.

3. Metodología docente

Las sesiones inicialmente planteadas en el aula se transforman en sesiones telemáticas síncronas a través de la herramienta Blackboard Collaborate integrada en Aula Virtual.

Se ha incluido en una sesión de clase, una actividad de preguntas de respuesta múltiple con una plataforma de evaluación. Esta actividad, no ha cambiado el volumen de trabajo del estudiante, pero ha sido de utilidad para el profesor para hacer un seguimiento de evaluación continua de las clases teóricas.

Las **tutorías** individuales se mantienen, bajo demanda, mediante sistemas de videollamada previa concertación de sesiones por el Blackboard Collaborate.

4. Evaluación

Se mantiene la modalidad de evaluación de esta sección planteada a principio de curso. El examen se llevará a cabo en el horario propuesto por la Facultad de Farmacia, de forma telemática, a través del Aula Virtual.

Si una persona no dispone de los medios para establecer esta conexión y acceder al aula virtual, deberá contactar con el profesorado por correo electrónico **inmediatamente** en el momento de publicación de este anexo a la guía docente.

La prueba de conceptos teóricos estará basada en una batería de preguntas de respuesta múltiple, que se genera de forma automática y aleatoria a partir de un banco de preguntas de dificultad variable. Se estima un tiempo de 1 minuto por cada pregunta. Ponderación = 70%

CALIFICACIÓN FINAL

Se necesita una nota igual o superior a 5.0 en el examen para aprobar la asignatura

Evaluación continua: 30%



Examen teórico 70%

5. Bibliografía

Se sustituyen los manuales recomendados por los apuntes y documentos que se suben al aula virtual.

