COURSE DATA

DATA SUBJECT

Code: 36370
Name: Food safety
Cycle: Undergraduate Studies
ECTS Credits: 4.5
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1212 - Degree in Gastronomic Sciences	Facultat de Farmácia i Ciències de L'alimentació	2	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1212 - Degree in Gastronomic Sciences	Food safety	COMPULSORY

COORDINATION

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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.

COMPETENCES / LEARNING OUTCOMES

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Conocer y saber aplicar las medidas higiénicas y preventivas de las principales alteraciones de los alimentos producidos por componentes biológicos y químicos.

Gestionar y manipular alimentos desde el ámbito de la seguridad alimentaria.

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

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	45,00
Total hours	**45,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	67,50
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**67,50**

TEACHING METHODOLOGY

The development of the course will be structured as follows:

Theoretical classes 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 multidisciplinary activities: problem solving and cases.- In these classes will take place the specific application of knowledge that the students have acquired in the theory classes solving case studies, management of scientific literature, discussion of current issues.

Preparation of videos- Students will make short videos in groups that will be shown in class.

Study Preparation of activities, Classes and Individual Work Hours Exams.- intended for reading and

preparing lessons, exam preparation

During the activities, both theoretical and practical, examples of the applications of the contents of the subject in relation to the Sustainable Development Goals (SDG) will be indicated, as well as in the proposals of topics for the coordinated seminars. This is intended to provide students with knowledge, skills and motivation to understand and address these SDGs, while promoting reflection and criticism. Of the 17 Sustainable Development Goals, particular emphasis will be placed on the following goals related to food security:

1- Goal 1: End poverty in all its forms everywhere

2- Goal 2: Zero Hunger

3- Goal 3: Guarantee a healthy life and promote well-being for all at all ages.

4- Goal 13: Take urgent measures to combat climate change and its impacts

EVALUATION

1.- Theoretical part (multiple-choice tests + final exam): Throughout the course, there will be several multiple-choice tests of the content indicated by the teacher, which will allow the elimination of material for the final exam. The tests will have a maximum value of 15%. The tests will be multiple choice, true/false, matching and/or fill-in-the-blanks questions. The grade earned will be added to the final exam grade. Students who score below 5 out of 10 on the overall quizzes will take the entire course at the end of the final exam.

The final exam includes the topics exposed in the theoretical classes with open and short answer questions or alternative answers (true-false) with reasoning and multiple-choice questions. The final exam represents 60% of the final grade.

Important: To add the rest of the activities, it is required to obtain a minimum of 5 points out of 10 in the theoretical contents.

2. Task activities: 15% of the grade corresponds to the completion of the task activities in the Virtual Classroom or during class time. This grade will take into account the resolution of the proposed activities (the grade will be distributed according to the number of tasks and/or questions proposed).

Failure to attend class regularly will be reflected negatively in the grade corresponding to this section.

3. Elaboration of videos: 10% of the grade of the course corresponds to the evaluation of the videos made in groups that will be viewed in class. At the same time, the same group will prepare questions about the video to be answered by classmates. The topics to be covered will be assigned on the first days of class.

Students who have not taken the written exam (first and second call) will be graded as No Present

In order to pass the course, a grade of 5 or higher must be obtained.

Those students who do not pass the course in the first exam will keep the grade corresponding to the video presented in class (10% of the grade) and the grades of the activities (15% of the grade) and the multi-chice test (15%) for the second exam (same academic year).

Repeaters who have done the video will not have to do it again, but they will have to do the activities again.

Evidence of copying or plagiarism in any of the assessable tasks will result in failure to pass the subject and in appropriate disciplinary action being taken. Please note that, in accordance with article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of students to refrain from using or participating in dishonest means in assessment tests, assignments or university official documents.

In the event of fraudulent practices, the ¿Action Protocol for fraudulent practices at the University of Valencia¿ will be applied (ACGUV 123/2020): https://www.uv.es/sgeneral/Protocols/C83sp.pdf

REFERENCES

- 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.

- 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.

- Armendáriz Sanz, J.L. (2017). Seguridad e higiene en la manipulación de alimentos. 3ºª eD.