

Degree	Type	Year
2501925 Food Science and Technology	OT	4
2502445 Veterinary Medicine	OT	5

## Contact

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## Teachers

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## Teaching groups languages

You can view this information at the [end](#) of this document.

## Prerequisites

Have previously studied food hygiene and technology subjects

## Objectives and Contextualisation

1. Describe the fundamental concepts, the historical foundations and the bibliographic bases.
2. Demonstrate that you know the fundamental bases in the hygienic design of the installations.
3. Identify the different systems of evaluation of food safety applied to the installations.
4. Show that you know the different equipments usable in collective restoration.
5. To interpret the nutritional composition of the elaborate dishes and their role in the health of individuals.
6. Discriminate relevant information regarding food safety.
7. Analyze the effects and influence of technology on the nutritional value of foods.

## Competences

#### Food Science and Technology

- Analyse, summarise, resolve problems and make professional decisions.
- Apply the principles of processing techniques and evaluate their effects on the quality and safety of the product.
- Communicate effectively with both professional and non-professional audiences, orally and in writing, in the first language and/or in English.
- Develop individual learning strategies and planning and organisation skills.
- Search for, manage and interpret information from different sources.
- Use IT resources for communication, the search for information within the field of study, data processing and calculations.

#### Veterinary Medicine

- Apply food technology to the preparation of food for human consumption.
- Comunicar la informació obtinguda durant l'exercici professional de manera fluida, oralment i per escrit, amb altres col·legues, autoritats i la societat en general.
- Demonstrate knowledge of the rights and duties of the veterinarian, with a special focus on ethical principles
- Draft and present satisfactory professional reports, always maintaining the required confidentiality.
- Perform risk analyses, including those of environmental and biosafety, and evaluate and manage them.
- Perform sanitary control of different types of catering and food companies and establishments, and implant and supervise quality management systems.
- Work effectively in single or multidisciplinary teams and show respect, appreciation and sensitivity for the work of others.

### Learning Outcomes

1. Analyse, summarise, resolve problems and make professional decisions.
2. Apply specific technological processes to the preparation of milk and dairy products, meat and derived products, and fishing, egg and plant products, and understand the modifications derived from the application of these processes to the finished product.
3. Apply suitable methodologies and tests to evaluate the salubriousness of milk, meat, fishing products, eggs, plants and derived products, as well as products made in collective catering establishments.
4. Apply the technological processes that are specific to milk and dairy products, meat and meat derivatives, fish products, egg products and vegetable products, and understand the modifications to the final product that these processes make.
5. Communicate effectively with both professional and non-professional audiences, orally and in writing, in the first language and/or in English.
6. Communicate information obtained during professional exercise in a fluid manner, orally and in writing, with other colleagues, authorities and society in general.
7. Design complex processes in accordance with the established quality criteria.
8. Develop individual learning strategies and planning and organisation skills.
9. Distinguish critical control points in each food preparation process in companies in the dairy, meat, fishing and aquaculture, eggs and egg product and plant product sectors, as well as collective catering establishments.
10. Draft and present satisfactory professional reports, always maintaining the required confidentiality.
11. Foresee and resolve specific problems in these industries.
12. Foresee and solve problems that are specific to the food industries.
13. Recognise the changes, alterations and adulterations suffered by milk, meat, fishing products, eggs, plants and derived products, as well as products made in collective catering establishments.
14. Recognise the circumstances that cause milk, meat, fishing products, eggs, plants and derived products, as well as products made in collective catering establishments to be unfit for human consumption and justify why.
15. Relate the problem of foodborne diseases caused by the consumption of milk, meat, fishing products, eggs, vegetables and derived products of all of those, as well as collective catering establishments, with the responsible etiologic agents.
16. Search for, manage and interpret information from different sources.
17. Select processes of conservation, transformation, transport and storage that are suited to foods of animal and plant origin.

18. Select suitable conservation, transformation, transport and storage processes for foods of animal and plant origin.
19. Use IT resources for communication, the search for information within the field of study, data processing and calculations.
20. Work effectively in single or multidisciplinary teams and show respect, appreciation and sensitivity for the work of others.

## Content

1. Introduction. Basics Bibliography.
2. Hygienic design. Definition of circuits and work areas, kitchen, parameters, installation, machines, furniture and utensils.
3. Hygienic management of the kitchen. Self-control applied to the collectivities sector. Establishment of hygienic management.
4. Formulating dishes according to the type of dishes. Differences between cold and hot dishes, technological and hygienic requirements.
5. Food of plant and animal origin. Differences between the risks in their handling and treatment. Special needs
6. Nutrition assessment and balanced diet.
7. Effects of technology on the nutritional composition of foods. Increase or decrease in their nutritional potential.

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Approach of practical cases	2	0.08	1, 4, 2, 3, 16, 8, 9, 11, 12, 13, 15, 17, 18, 19, 14
Case presentation	2	0.08	1, 4, 2, 3, 16, 6, 5, 8, 7, 9, 11, 12, 13, 10, 15, 17, 18, 20, 19, 14
Facilities visit	3	0.12	1, 2, 3, 8, 7, 9, 11, 12, 13, 18, 20, 14
Theory	16	0.64	4, 2, 3, 16, 5, 7, 9, 11, 12, 13, 10, 15, 17, 18, 19, 14
Type: Autonomous			
Practical works	48	1.92	1, 4, 2, 3, 16, 6, 5, 8, 7, 9, 11, 12, 13, 10, 15, 17, 18, 20, 19, 14

### Visits

Facilities within the UAB campus. 3 hours

### Seminars

Placement of practical work. 2 hours.

## Practical works

Individual work, related to the design and approach of a kitchen of collectivities, to be carried out individually. Each student will choose a type of dish to prepare in a kitchen of collectives. The student will have to develop the following activities:

1. Necessary equipment.
2. Design of installation.
3. Formulation of the dish and necessary treatments.
3. Food safety management.
4. maintenance of nutritional properties.
5. Health warnings depending on the final composition.

This work will be presented publicly during a 2 hour session, lasting 10 minutes. If the number of students is very high (more than 12) and there was not enough time, the presentation would be of the students chosen by the teachers from the best of the course.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Assessment of learning in the development of practical cases	40%	2	0.08	1, 4, 2, 3, 16, 6, 5, 8, 7, 9, 11, 12, 13, 10, 15, 17, 18, 20, 19, 14
Attendance to mandatory activities	10%	0	0	5, 9, 11, 12, 15, 18, 20, 14
Theoretical evaluation	50%	2	0.08	1, 4, 2, 3, 16, 8, 7, 9, 11, 12, 13, 15, 17, 18, 19, 14

The evaluation of the student will be based on the following distribution:

- 1.- Theoretical tests (theoretical examination) ..... 50%
- 2.- Practical tests ..... 40%
- 2.1.- Cases .....40%
- 2.1.1- Oral presentation ..... 5%
- 2.1.1- Written works ..... 35%
- 2.1.- Attendance to mandatory activities ..... 10%

NOTE: It is necessary to pass the theoretical exam to be able to pass the subject.

To carry out the assessment, a theoretical exam will be done with test questions.

The practical tests will be derived from:

The continuous evaluation of the assistance to the practices.

Completion of the practical work will be presented throughout the semester.

Students who do not pass the subject should do a new theoretical examination of recovery or will return to present the practical work. Once the subject is evaluated, each student will be indicated which is the part of the subject that is passed or which must be recovered, if necessary.

Students not present in any of the evaluations, will have to carry out a new theoretical examination of recovery or will return to present the cases not presented. This new evaluation will be at the same time as recovery assessments.

Students who do not participate in assessable activities that represent at least 15% of the total grade will be considered as Not-evaluable.

This subject does not provide for the single assessment system.

## Bibliography

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Armendáriz J.L. 2001. Procesos de cocina. Ed. Paraninfo. Madrid,

Barham P. 2003. La cocina y la ciencia. Ed.: Acribia. Zaragoza.

Cross M. y MacDonald B. 2009. Nutrition in Institutions. Ed.: Wiley.  
<http://onlinelibrary.wiley.com/book/10.1002/9781444301663?globalMessage=0>

Kinton R. 2000. Teoría del catering. Ed.: Acribia. Zaragoza.

Montes E, Lloret I i López M.A. 2005. Diseño y gestión de cocinas. Ed.: Acribia. Zaragoza

## Software

The Nutritics program of professional nutrition will be used to know the composition of the dishes proposed by the students in the design of the community kitchen. In addition, students will be able to verify the health warnings that must be recorded.

## Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	1	Spanish	second semester	morning-mixed
(TE) Theory	1	Spanish	second semester	afternoon