

Teaching guide

IDENTIFICATION DETAILS

Degree:	Gastronomy
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Field of Knowledge:	Science
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Faculty/School:	Legal and Business Science
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Course:	FOOD QUALITY ASSURANCE AND HYGIENE
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Type:	Compulsory	ECTS credits:	6
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Year:	3	Code:	1463
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Teaching period:	Sixth semester
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Area:	Bromatology and health
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Module:	Discipline
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Teaching type:	Classroom-based
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Language:	English
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Total number of student study hours:	150
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Teaching staff	E-mail
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SUBJECT DESCRIPTION

The subject of Food Hygiene and Food Quality seeks to provide fundamental concepts of food safety and hygiene applied to the production and preserving culinary processes. Hygiene, generally, in the food industry is focus on food contaminants, sanitary aspects of equipment, utensils, food handlers, raw materials, etc. Furthermore, the subject provides knowledge about technological processes (conservation and packaging, the effect of culinary processes on food and the different tools to ensure food safety (traceability, HACCP, ISO) to ensure food quality and safety throughout the food chain.

GOAL

1. Describe the main critical points of food safety and food hygiene.
2. Know the epidemiology of food-borne diseases.
3. Know the processes of storing and preserving food for human consumption, ensuring hygiene and dietary quality as well as food handling protocols to prevent possible contamination and maintain the nutritional characteristics thereof.
4. Identify the main biotic and abiotic risks related to food quality deterioration.
5. Detect hygiene and health problems in the food industry and catering.
6. Know and understand the HACCP system

PRIOR KNOWLEDGE

No previous knowledge is required

COURSE SYLLABUS

FOOD HYGIENE AND FOOD SAFETY

- 1: Introduction to Hygiene and Food Safety.
- 2: Food Microbiology I: Microbiological contamination of food. Fungi, bacteria, viruses, prions, parasites and plagues.
- 3: Food Microbiology II: Microbial growth, food spoilage and pathogenicity.
- 4: Food Microbiology III: Growth control and destruction of microorganisms. Diagnostic tests and determination of the microbial load.
5. Food Contaminants I: Natural toxins.
6. Food Contaminants II: Chemicals and Metals contaminants.
- 7: Legislation and Regulation I: Responsible official bodies worldwide.
8. Legislation and Regulation II: General Food Law Regulation. Food Labelling Regulation.
8. Food Safety Guidelines: Good Agricultural Practices. Good Manufacturing Practices. Good Hygiene Practices.

FOOD QUALITY

- 9: Basic concepts in food quality.
- 10: Codex Alimentarius. International Food Standards.
- 11: Total quality management.
- 12: Hazard Analysis and Critical Control Points (HACCP).
- 13: ISO 22000 standards.
- 14: Quality schemes for agricultural products and foodstuffs. Protected Designation of Origin, Protected Geographical Indication and Traditional Speciality Guaranteed.

EDUCATION ACTIVITIES

Active and participatory masterclass: Unlike the classic lectures, in participatory lectures the students become active, promoting their participation. It requires a good structuring of content and clarity to keep the attention and interest of the students.

Student's autonomous work load. The student has to take the initiative with or without help (professors, tutors, or other students). Student have to diagnose their learning needs, formulate learning goals, identifies the resources they need to learn, choose and implement appropriate learning strategies and evaluate results. The professor becomes the guide and a source of information that assists in their work.

Cooperative work in small groups: Instructional strategy in which students are divided into small groups and they are evaluated as group productivity ", which brings into individual responsibility as positive interdependence, based on professional teamwork.

Tutorials: Including interviews, group discussions, self-reports and monitoring tutorial reports.

Research: Search for information in scientific sources and documents, analysis and synthesis of data and development of firm conclusions.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
60 hours	90 hours
ACTIVE MASTERCLASSES 50h WORKSHOPS 5h TUTORIALS 2h FINAL EXAM 3h	INDIVIDUAL OR GROUP WORK 30h THEORETICAL AND PRACTICAL STUDY 60h

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

General Skills

To develop the skill of responsible, critical, reflective, analytical and synthetic thought.

To be able to work efficiently as a member and as the head of a team in multicultural and/or multidisciplinary environments.

To develop habits of oral and written communication in order to convey one's attitudes and feelings.

To develop professional skills such as humility in the workplace, consistency in practice, tidiness and discipline, objective self-criticism and the spirit of achievement.

To develop the professional skills involved in risk forecasting, decision making and problem solving.

To recognise the importance of the social and environment elements of one's professional and business activity and of the need for a professional code of ethics.

To be able to apply the theory and knowledge acquired to real situations and practical actions.

To analyse and summarise the main ideas and contents of all types of texts, discover their theories and the issues they pose and critically judge their form and contents in terms of both the texts and the underlying rhetoric.

To consider the activities related to the profession from an international viewpoint and develop attitudes of interest, respect and dialogue with other nationalities, cultures and religions in search of the truth.

To adopt an attitude of intellectual eagerness, scientific interest and the search for knowledge and truth in all professional and personal undertakings.

Specific skills

To understand the inter-relation and interaction of physicochemical and biological phenomena occurring during the food production, preparation, preservation, consumption and assimilation process

To have knowledge of the different proximate nutrients and other components present in food, their impact on its quality and sensorial attributes and their impact on the health of the individual, within an eating pattern.

To know and apply advanced food production and preservation processes to the culinary arts.

To know and apply detailed food assimilation and healthy nutrition processes to the culinary arts.

To master the international terminology of gastronomy in all of its areas: culinary techniques, recipes, products, chemical elements, biological and biochemical phenomena and processes, technologies, regulations, designations of origin, processes and dissemination to the media.

LEARNING RESULTS

Identify critical control points, establish and monitor the critical limits related to the different food processes in the industry.

Determine the food safety hazards and identify the preventive measures to avoid food-borne diseases.

Describe the processes of storing and preserving food for human consumption, ensuring hygiene and dietary quality as well as food handling protocols to prevent possible contamination and maintain the nutritional characteristics thereof.

Identify the main biotic and abiotic risks related to food quality deterioration.

Describe and understand the HACCP system.

Handle specialized information resources, learn to use correct terminology and to develop critical judgments of matter.

LEARNING APPRAISAL SYSTEM

The student will never be allowed to pass the subject just by being successful in one exam.

- Students of first enrollment

Written exam , test or short answers 65%

Daily assessment 15%

Assistance and class participation 10%

Group Work 10%

To succeed and pass the written exam the student will need to get more than a 4,5 to 10.

- Academic exemption or dispensation

The students that, for a justified reason (health problems or any other important matter) and always with the agreement and the approval of the academic director, cannot attend the programmed scheduled lessons will be marked just with the written theory exam and the group work. In this case the written exam will count 70% and the group work 30%. Students of second or subsequent enrollments The students of second or subsequent enrollments will have the two options mentioned before, it is mandatory to communicate the professor at the beginning of the semester The student will not be able to pass the subject with just one assessment

- Extraordinary examinations In this case the assessment criteria applied will be the same as the two previous ones

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

<https://www.efsa.europa.eu/>
<http://eur-lex.europa.eu/homepage.html?locale=en>
<https://www.fda.gov/>
<http://www.fao.org/fao-who-codexalimentarius/codex-home/en/>
https://ec.europa.eu/commission/index_en

Forsythe S.J., Hayes P (2002) Higiene de los alimentos, microbiología y HACCP Editorial Acribia.

Marriott, N. G. (2003), Principios de higiene alimentaria. Editorial Acribia

Additional

Comisión Europea.(2000) Libro blanco sobre seguridad alimentaria. Comisión de las comunidades europeas. COM(1999)