

# INTRODUCTION TO THE FOOD SECTOR

Coordination: GARZA GARZA, SALVADOR

Academic year 2022-23

# Subject's general information

Subject name	INTRODUCTION TO THE FOOD SECTOR				
Code	102213				
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION				
Typology	Degree		Cours	e Character	Modality
	Bachelor's Degree in Food Science and Technology		1	COMPULSO	Attendance-based
Course number of credits (ECTS)	6				
Type of activity, credits, and groups	Activity type	PRACAMP		PRAULA	TEORIA
	Number of credits 0.6			1.8	3.6
	Number of groups	2		2	1
Coordination	GARZA GARZA, SALVADOR				
Department	FOOD TECHNOLOGY, ENGINEERING AND SCIENCE				
Teaching load distribution between lectures and independent student work	On-site hours: 60 Off-site hours: 90				
Important information on data processing	Consult this link for more information.				
Language	Català: 35 Castellà: 65				
Distribution of credits	Theoretical: 3.6 Practical:2.4				

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
COLOM GORGUES, ANTONIO	antonio.colom@udl.cat	2,4	
GARZA GARZA, SALVADOR	salvador.garza@udl.cat	5,6	
MAGRI TERSA, XAVIER	xavier.magri@udl.cat	,2	
SALAMERO TEIXIDO, LAURA	laura.salamero@udl.cat	,2	

## Subject's extra information

For the purposes of the final qualification, in order to pass the subject, it will be necessary to obtain at least 4.0 in each of the acedemic activities and an average higher than 5.0 points.

It is mandatory for the students to wear the individual protection equipment (PPE) in the practical sessions:

- · UdL unisex white lab coat
- Protection glasses
- · Chemical / biological protection gloves

If, for health reasons, or other unforeseen circumstances, teaching activities cannot be carried out in the classroom, they will take place remotely

## Learning objectives

L'estudiant, al superar l'assignatura, ha de ser capaç de:

- Conèixer l'estructura i situació del sector alimentari.
- Conèixer dades macroeconòmiques dels diferents subsectors.
- Conèixer disposicions vigents que afecten al sector alimentari.
- Manejar bases de dades sobre el sector alimentari

## Competences

#### **DEGREE IN FOOD SCIENCE AND TECHNOLOGY**

#### Specific competences:

SC1. To select and apply the physical and mathematical foundations necessary for the development of other

disciplines and the activities of the profession.

- SC2. Identify and apply the necessary chemical foundations for the development of other disciplines and the activities of the profession.
- SC4. Select and apply the basic concepts of the statistical method, being able to statistically analyze the results of studies and interpret them critically.
- SC5. Apply the basic processes of a laboratory and use equipment, handle reagents, meet safety conditions and prepare reports.
- SC6. Raise and solve problems by correctly applying the concepts acquired to specific situations.
- SC25. Explain the role of ingredients and food additives.
- SC26. Apply basic knowledge about raw materials, ingredients and additives to the formulation of food.
- SC27. Interpret the physical and chemical changes that occur during different food processing processes.
- SC28. Modify the processes of food production on the basis of objectives.
- SC29. Select equipment and organize food processing and packaging lines.
- SC30. Develop new processes and products.
- SC31. Identify and assess the various parts of an agro-food industry project.
- SC32. Dimensioning production lines.
- SC33. Estimate equipment capacities for production lines and requirements for auxiliary systems.
- SC48. Seek and interpret legislative provisions and sources of information affecting the food industry.
- SC52. Identify market marketing and regulatory systems.
- SC54. Carry out market studies on agri-food products and product innovation.

#### **Basic competences:**

- CB2. That students know how to apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the development and defense of arguments and the resolution of problems within their area of study.
- CB3. That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgements that include a reflection on relevant social, scientific or ethical issues.
- CB4. That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.
- CB5. That students have developed the necessary learning skills to undertake further studies with a high degree of autonomy.

#### **GenerIC competences:**

- CG1. Analyze concrete situations, define problems, make decisions and implement action plans in the search for solutions.
- CG2. Interpret studies, reports, data and analyze them numerically.
- CG3. Select and manage the available written and computerized information sources related to the professional activity.
- CG4. Working alone and in a multidisciplinary team.
- CG5. Understand and express yourself with the appropriate terminology.
- CG6. Discuss and argue in diverse forums.
- CG7. Retraining in new technological advances through continuous learning.
- CG8. Value comprehensive training, personal motivation and mobility.
- CG9. Analyze and assess the social and ethical implications of professional activity.
- CG10. Have a critical and innovative spirit.
- CG11. To analyze and assess the environmental implications in the professional activity.

#### **Transversal competences:**

- CT1. Correctly present oral and written information
- CT3. Use existing computer and communication tools as support for the development of your professional activity
- CT4. Respect for the fundamental rights of equality between men and women, the promotion of human rights and the values of a culture of peace and democratic values

## Subject contents

The contents of the course may be modified for extraordinary reasons.

# MODULE I: AGRICULTURAL AND FOOD SYSTEM, INDUSTRIAL PRODUCTION SUBSECTORS AND DISTRIBUTION

Topic - Introductory concepts and elements. Agri-food system and food production and distribution business activity.

Topic - Concepts about the agri-food system and the food chain.

Topic - Food supply, demand and consumption: an overview of the food sub-sectors.

Food supply, demand and consumption: an overview of food sub-sectors II. Protected and territorially-linked quality products and other quality specifications.

Topic - Outline and overview of agri-food market systems and structures in Spain.

#### Practical classroom activities

#### **Exercises and case studies**

Study and analysis of the Agri-Food Sector in Europe and Spain. 2.

- 2.- Study and analysis of the evolution of the Spanish pork sector, and of the meat and milk and derivatives subsectors in Spain.
- 3.- Study and analysis of the olive oil, fruits and vegetables and other sub-sectors in Spain.
- 4.- Study and analysis of the Protected Quality Products and products linked to the territory in Spain (PDO, PGI, TSG in non-wine food products and DO and other wine products).
- 5.- Study and analysis of the Corporación Alimentaria de Guissona (CAG SA).

#### **MODULE II: THE FOOD INDUSTRY**

Topic - The agri-food industry.

Topic - Facts and figures in the food industry.

Practical classroom activity - Sources of information in the food industry.

Practical classroom activity - Case study: Study of the fruit juice sector.

#### **MODULE III: FOOD LEGISLATION**

Topic - Introduction to legislation in the food industry.

Practical classroom activity - Case study: Study of the Technical Sanitary Regulations / Processing standards of a specific food.

Topic - Legislation on food labeling. Labeling workshop

Topic - Practical case: Real Decreto 140/2003. On quality of water for human consumption.

#### Technical visits to companies in the food sector.

- Visit to first transformation industry.
- Visit to a second transformation industry.
- Visit to a water analysis or agri-food laboratory.
- Visit to a food distribution logistics platform.

#### **BIBLIOGRAPHIC WORK (Group)**

Bibliographic work on a food with differentiated quality (PDO, PGD).

If for any reason some or all of the visits cannot be carried out, they will be substituted by another type of academic activity, and if the latter is not possible, the percentage of the grade corresponding to the visits will be distributed among the other activities carried out at the discretion of the professors.

## Methodology

Kind of activity	Description	On-site activity		Autonomous activity		Evaluation	Total time
		Objectives	Hours	Student's work	Hours	Hours	Hours / ECTS
Lecture	Lecture	Explanation of the main concepts	28	Study: Learn, understand and synthesized kwnoledge.	60	2	90 / 3.60
Interactive lectura	Interactive lectura	Solving problems and case studies	14	Problems resolution and case discussion	18		30 / 1.28
Seminar	Participative lectura	Activities for discussion and knowledge application		Case discussion			
Laboratory	Laboratory practice	Practice development		Study and prepare the practical report			
Supervised activities	Monographic exercise (individual or group)	Monitoring the work done by the student for the preparation, written presentation and oral defense of the academic work.	4	Bibliographic search and preparation of a presentation	10		14 / 0.56
Fiel practices	Visits to industries and companies in the agri-food sector		12		2		14/ 0.56
TOTAL			58		90	2	150 / 6

## Evaluation

#### **Bachelor in Food Science and Technology**

Note: If for health reasons, or other unforeseen circumstances, it is not possible to carry out face-to-face tests, these will take place remotely.

Type of activity	Assesment type	Weight mark		
Type of activity	Procedure	Number	(%)	
Lecture	Written test	3	70 (20 + 25 + 25)	
Interactive lecture	Written test	2	10	
Seminar	Delivering report. Written or oral test			
Laboratory	Delivering report. Written or oral test			
Supervised activities	Delivering report and oral defence of academic work.	1	15	
Fiel practices	Delivery of reports of the visits or, if applicable, of the activities that replace them.	1	5	
TOTAL			100	

#### Observations:

In order to pass the course it is necessary to obtain a weighted average grade, of all the evaluable activities, equal or higher than 5.0.

To be able to average it will be necessary to have obtained at least a 4.0 in each and every one of the written tests (exams).

The work and the technical visits will not have recovery.

If, for any reason, any of the scheduled evaluable teaching activities is not carried out, the corresponding percentage of the grade will be redistributed among the other activities carried out at the professor's discretion.

Note: If for health reasons, or other unforeseen circumstances, it is not possible to carry out face-to-face tests, these will take place remotely.

#### Bibliografia bàsica

Instituto de Estudios Económicos. (1980).- El Sector agroalimentario ante la C.E.E. Instituto de Estudios Económicos. Madrid.

Agència Catalana de Seguretat Alim entària. (2007).- La Seguretat alimentària a Catalunya. Generalitat de Catalunya. Barcelona

Bello Gutiérrez, J., García-Jalón de la Lama, M.I., López de Cerain Salsamendi, A. (2000).- Fundamentos de seguridad alimentaria. Eunate, cop.

Ballestero E. (1991).- Economía de la empresa agraria y alimentaria. 391 pag. Ed. Mundi Prensa. Madrid. 1991.

Caldentey P., Briz J., Haro T., Titos (1994).- Marketing agrario. 212 pag. Ed. Mundi Prensa, 2ª ed. Madrid.

#### Bibliografia complementària

Colom Gorgues A. (2006).- Marketing agroalimentario: unas definicioes y conceptos básicos. Universitat de Lleida. CD-ROM, libro electrónico.

Kotler PH., Lane K. (2006). Dirección de marketing. 12ª edición, 775 pág. Ed. Prentice Hall. Madrid 2006.

Romero López C. (1993).- Técnicas de gestión de empresas. Ed. Mundi Prensa-CEPADE. Madrid.

Rivera Vilas L.M. (1995).- Gestión de la calidad agroalimentaria. Editorial Mundi Prensa. 139 pág. Madrid.

Rivera Vilas L.M. (1989).- Marketing para las pymes agrarias y alimentarias. 224 pag. Ed. AEDOS-MAPA. Barcelona.