Universitat de Lleida

DEGREE CURRICULUM

FOOD QUALITY AND SECURITY

Coordination: SANCHIS ALMENAR, VICENTE

Academic year 2020-21

FOOD QUALITY AND SECURITY 2020-21

Subject's general information

Subject name	FOOD QUALITY AND SECURITY
Code	100612
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION
Typology	

Degree	Course	Character	Modality
Double bachelor's degree: Degree Physiotherapy and Degree in Human Nutrition and Diethetics	4	COMPULSORY	Attendance-based
Bachelor's Degree in Human Nutrition and Dietetics	3	COMPULSORY	Attendance-based

Course number of credits (ECTS)	6
Type of activity, credits, and groups	

Activity type	PRALAB	PRAULA	TEORIA
Number of credits	1	2	3
Number of groups	6	3	2

Coordination	SANCHIS ALMENAR, VICENTE
Department	FOOD TECHNOLOGY
Teaching load distribution between lectures and independent student work	Contact hours: 60 - Lectures: 30 - Lab: 10 - Seminar: 20 Non-contact hours: 120
Important information on data processing	Consult this link for more information.
Language	Catalan Spanish

FOOD QUALITY AND SECURITY 2020-21

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ALEGRE VILAS, ISABEL	isabel.alegre@udl.cat	3,1	
ARANTEGUI JIMENEZ, JAVIER	javier.arantegui@udl.cat	4,3	
SALA MARTI, NURIA	nuria.sala@udl.cat	2	
SALVIA TRUJILLO, LAURA	laura.salvia@udl.cat	2,9	
SANCHIS ALMENAR, VICENTE	vicente.sanchis@udl.cat	5,7	

Subject's extra information

This course necessary to assess, monitor and manage the quality and food safety tools are provided. the basic concepts of quality and quality management are provided. In addition the family of ISO 9000 standards are introduced, necessary to develop a quality manual and follow the steps for your implantación.También system Hazard Analysis and Critical Control Points (HACCP) will be introduced, and obligario essential element for get safe food for consumers. Finally, statistical tools to perform these tasks will work, such as sampling and statistical quality control.

Learning objectives

The objectives are:

- Know the terminology used in quality management in the food sector.

- Explain the importance of quality in the business world.

- Describe the model of quality management of a company.

- Analyze quality plans.

- Develop sheets control process and analyze the information obtained.

- Designing a sampling plan in a food industry.

- Interpret a microbiological analysis.

- Select the control chart more suited to a particular situation.

- Learn to draw and interpret statistical process control charts.

- Understanding the ISO 9000 family of standards.

- Prepare a quality manual for a food company.

- To apply the system of Hazard Analysis and Critical Control Points in the food industry.

- Knowledge management systems of traceability in the food industry.

Competences

17 Coordinate, perform and participate in the training of professionals related to food and nutrition, in terms of quality and food safety.
18 Collaborate in the implementation of quality systems.
19 assess, monitor and manage aspects of traceability in the food chain.
21 scientific and technical advise on food products and the development thereof.
22 To assess compliance with this advice.
24 Collaborate on consumer protection in the context of food security.

Subject contents

1. The new framework for food security.

Concept. Risk Analysis. Risk Assessment: hazard identification, hazard characterization, exposure assessment and risk characterization. Risk Communication. Risk Management. Food Safety Agency. Food crisis.

2. System of Hazard Analysis and Critical Control Points (HACCP).

Objectives and elements of the system. Benefits and specific problems. Sequence application of the HACCP system. Hazard Analysis. Critical Control Points. Verification of the operation and efficiency of the system. Registration and documentation system. Testing, monitoring or surveillance. Implementation of HACCP case studies. Preparation of the document. Hygiene Regulations. ISO 22000 ..

3. Traceability in the food sector and other prerequisites.

Concept. Traceability system: Management Tool. Need for a traceability system. Normativa- current legislative situation. Stages for the implementation of a traceability system. Encoding products. other Prerequisites

4. What is quality? How is quality management?

History and definitions of quality. Importance of quality. Factors food quality. Measurement methods in quality control. What is quality management? Principles of total quality management. Economic aspects of quality.

5. Tools classical quality control.

Leaves control. Diagrams.

6. Sampling the food industry.

Quality control and sampling. Development of a sampling plan simple attributes. Study and application of the rules of sampling.

7. Analysis of food. Microbiological determinations.

Detection of microorganisms of interest and hygienic indicator microorganisms.

8. Statistical Process Control.

The process variability. The ability of processes. Control charts and their interpretation.

9. Rules assurance and quality management ISO 9000

Standardization. Benefits of standardization. Origin and evolution of these standards. Analysis of the rules. Quality System Certification. Other management systems.

Methodology

Tema	Professor	Duració (h)	Tipus d'activitat
1	J. Arántegui	1	Classe de teoria
2	J. Arántegui	1	Classe de teoria
3	J. Arántegui	1	Classe de teoria
3	J. Arántegui	1	Elaboració i interpretació de diagrames. Seminari
3	J. Arántegui	2	Cercles de qualitat. Estudi d'un cas Treball en grup.
4	J. Arántegui	1	Classe de teoria
4	J. Arántegui	1	Problemes. Seminari
4	J. Arántegui	1	Disseny d'un pla de mostreig. Seminari. Treball en grup
5	V. Sanchis	4	Classe de teoria
		2	Pràctiques de laboratori
6	J. Arántegui	2	Classe de teoria
6	J. Arántegui	3	Classe de teoria. Elaboració i interpretació de gràfics de control. Aula d'informàtica.
7	J. Arántegui	3	Classe de teoria
7	J. Arántegui	2	Anàlisi d'un manual de qualitat. Estudi d'un cas. Treball en grup
7	C. Gallinad	9	Seminari. Resolució de cassos
1-7	Tots	2	Examen 2
8	V. Sanchis	2	Classe de teoria
9	V. Sanchis	6	Classe de teoria
		3	Seminari
		8	Pràctiques de laboratori
10	V. Sanchis	2	Classe de teoria
		1	Seminari
8-10	V. Sanchis	2	Examen
	TOTAL	60	

Development plan

GNHD

A les tasques se hi ha d'incloure el professor encarregat de cada activitat.

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Tema	Professor	Duració (h)	Tipo de activitat
1	V. Sanchis	2	Classe de teoria
		6	Classe de teoria
2	V. Sanchis	3	Seminari
		8	Pràctiques de laboratori
3	V. Sanchis	2	Classe de teoria
		1	Seminari
1–3	V. Sanchis	2	Examen 1
4	J. Arántegui	2	Classe de teoria
5	J. Arántegui	2	Classe de teoria
		2	Seminari
6	J. Arántegui	2	Classe de teoria
		2	Seminari
7	V. Sanchis	4	Classe de teoria
		2	Pràctiques de laboratori
8	J. Arántegui	2	Classe de teoria
		4	Seminari
9	J. Arántegui	3	Classe de teoria
	J. Arántegui	2	Seminari
	J. Arántegui	9	Seminari
4-9	Tots	2	Examen 2
	TOTAL	60	

GNHD-Igualada

Tema	Professora	Duració (h)	Activitat
1	I. Alegre	2	Classe de teoria
2	I. Alegre	5 3 8	Classe de teoria Seminari Pràctiques laboratori
3	I. Alegre	5 1	Classe de teoria Seminari
1-3	I. Alegre	2	PRIMER PARCIAL
4	L. Salvia	4 2	Classe de teoria Seminari
5	L. Salvia	2 3	Classe de teoria Seminari
6	L. Salvia I. Alegre	3 4 2	Classe de teoria Seminari Classe de teoria
7	I. Alegre	2 2 2	Classe de teoria Seminari Pràctiques de laboratori

8	L. Salvia	3 3	Classe de teoria Seminari
9	L. Salvia	3 2	Classe de teoria Seminari
4-9	I. Alegre i L. Salvia	2	SEGON PARCIAL

Evaluation

Exam 1 (Food Safety): 30% (a minimum score is required to AVERAGE 4)

Exam 2 (Quality): 40% (a minimum score is required to AVERAGE 4)

Seminars: 10% (compulsory for passing the subject)

Practices: 20% (compulsory for passing the subject)

Each exam will be necessary to obtain at least 04/10 in order AVERAGE. Parties with less than 4 qualifications must be overcome in the final exam. In the case of not reaching 5 in the theoretical part, this will be the final note of the subject. It is mandatory to submit the work of the seminars and practices. The work and practices computed when you have passed the evaluation of the theoretical part. If compliance with the requirements for AVERAGE, surpasses the evaluation with grade ≥ 5.

The competition evaluates 17 in both examinations and in the second case studies. The competition evaluated 18 Designing a sampling plan, the preparation and interpretation of control charts and the first case study. 19 The competition taught in Unit 3. The competition is 21st in Items 5, 6, 7 and 9. It is dedicated much of Item 9 competition 22. And finally, ensures competition 24 items 8 and 9.

In addition assessed the following core competences:

- Report Writing (Analysis of a quality manual and implement a HACCP)
- Teamwork (studies and design of a sampling plan)
- Use of statistical software (Drawing control charts)
- Capacity planning and organization (Quality Circles)
- Troubleshooting
- Capacity analysis (Quality Manual and Report Microbiological analyzes)

Bibliography

Briz J(2003), Internet, Trazabilidad y Seguridad Alimentaria. Ed. MundiPrensa.

De las Cuevas, V. (2006). APPCC Avanzado.Guía para la aplicación de un Sistema de Peligros y Puntos de Control Críticos en una empresa alimentaria. Ed. Ideaspropias. Vigo

De las Cuevas, V. (2006). Trazabilidad Avanzado.Guía práctica para la aplicación de un Sistema de Trazabilidad en una empresa alimentaria. Ed. Ideaspropias. Vigo

Juran, J.M., Godfrey, A.B. (eds.) (2001), Manual de calidad de Juran. McGraw Hill.

Serra, J.A., G. Bugueño, G. (2004), Gestión de calidad en las pymes agroalimentarias. Editorial de la UPV.

VV.AA. Especial Sistema de gestión integral: Gestión de calidad. http://www.fecyt.es/especiales/calidad/1.htm (Visitado el 22 de abril de 2010)