

MODULE	CONTENT	YEAR	TERM	CREDITS	TYPE
MANAGEMENT AND FOOD QUALITY	MANAGEMENT AND FOOD QUALITY	4	2	6.0	Mandatory
LECTURER(S)			Postal address, telephone n^o, e-mail address		
<ul style="list-style-type: none"> Cristina Samaniego Sánchez Rosa Maria Blanca Herrera 			Department of Nutrition and Food Science, 3rd floor, School of Pharmacy. email: : csama@ugr.es , rblanca@ugr.es		
DEGREE WITHIN WHICH THE SUBJECT IS TAUGHT			TUTOIALS		
Degree in Science and Food Technology Double Degree in Human Nutrition and Dietetics and Food Science and Technology			http://www.ugr.es/~nutricion/pdf/tutorias2021.pdf		
PREREQUISITES and/or RECOMMENDATIONS (if necessary)					
The own ones of the access to the Title of Degree in Science and Technology of the Foods. In particular this subject requires having previously studied all the subjects corresponding to the modules: Common Basic Training, Food Safety and the subject of Normalization and Legislation.					
BRIEF ACCOUNT OF THE SUBJECT PROGRAMME (ACCORDING TO THE DEGREE¿??)					
Quality. The quality in the food industry. Quality management systems. Implementation and evaluation of quality systems. ISO standards. Total quality. Quality of food Evaluation. ISO standards. Other quality standards Certification of food products. Requirements and procedures. Environmental policy Environmental management systems. UNE EN-ISO 14001. Regulation EMAS. Labor safety in food industries. Occupational risk prevention management system OSHAS					
GENERAL AND PARTICULAR ABILITIES					
General habilities:					



- CT1. Ability to communicate successfully in Spanish within disciplinary field.
- CT2. Problem-solving capacity
- CT3. Teamwork.
- CT4. Ability to apply theoretical knowledge in a particular way.
- CT7. Capacity for analysis and synthesis.
- CT8. Critical Thinking.
- CT9. Develop skills to initial research.
- CT10. Motivation for quality.
- CT11. Capacity for organization and planning.
- CT12. Ability to manage information.
- CT14. Sensitivity to environmental issues.

Specific:

- CE.9 - Develop environmental management protocols and quality control in food industries
- CE.15 - Inform, train and advise the public administration, the food industry and consumers, legally, scientifically and technically, to design intervention strategies and training in the field of food science and technology
- CE.16 - Putting into practice the principles and methodologies that define the professional profile of the food scientist and technologist, demonstrating in an integrated manner the acquisition of skills and competences that contemplates the degree

OBJECTIVES (EXPRESSED IN TERMS OF EXPECTED RESULTS OF THE TEACHING PROGRAMME)

- Use the specialized language and quality concepts in an appropriate way, in the different areas of the food sector
- Identify the principles of the philosophy of total quality based on the quality policy and the guidelines of action of a food organization
- Know and differentiate the different systems of quality management in the food business
- Know when and how the different systems can be integrated: Concept of Total Quality
- Adequately apply management techniques and quality assessment aimed at improving food safety and quality
- Know the existing mechanisms to regulate and protect the quality of food products

DETAILED SUBJECT SYLLABUS

THEORETICAL SYLLABUS:

- Unit 1. Quality Concept. Quality in the Food Industry. Principles of Quality Management. Systems of quality management. Elements of a management system. Main models of quality management.
- Unit 2. UNE EN-ISO 9001:2015 policy on quality management. Main Features of the policy. Guidelines for the Implementation of the UNE EN-ISO 9001: 2015 policy. Requirements of the UNE EN-ISO 9001: 2015 policy.
- Unit 3. Documentation of a system of quality management. Quality manual. Quality procedures. Technical instructions. Records
- Unit 4.Total Quality Management systems. Edwards Deming model (Japan). Malcolm Baldrige model (USA). EFQM (Europe), Ibero American Model.
- Unit 5. Quality System Certification. Requirements and procedures.



- Unit 6. Food quality Concept. Quality Criteria. Evaluation of the quality of food.
- Unit 7. Names of quality agricultural products and food products. objectives. Quality designations in the European Union. Requirements. Application procedure and enrollment registration. Control structures.
- Unit 8. Specific quality protocols (I) :. UNE 155,000. GLOBALGAP. Organic products.
- Unit 9. Specific quality protocols (II): BRC (British Retail Council). IFS (International Food Standard). ISO 22,000.
- Unit 10. Quality labels. Trademark law. Collective marks and guarantee marks. Concept. Application procedure and enrollment registration.
- Unit 11. Basic Principles of Laboratory Quality. Implementation of quality systems in testing and calibration laboratories. UNE EN-ISO / IEC 17025: 2005). Good Laboratory Practice. Accreditation of laboratories. Situation of the agroindustry laboratories
- Unit 12. The Environmental Management (I). Concept. Objectives. Background. The family of standards ISO 14000. standard requirements for ISO 14001. General requirements. Environmental planning.
- Unit 13. The Environmental Management (II). Implementation and operation of the ISO 14001 Environmental Policy. Environmental actions: planning and implementation. Checking and corrective action. System validation. Integrated Production.
- Unit 14. The Environmental Management (III). Audit of an environmental management system. Development of the audit. Integration ISO 14001 certification with ISO 9000 quality system.
- Unit 15. OCCUPATIONAL HAZARDS PREVENTION (I). Occupational hazards: definition, classification and location. Occupational injury: definition and classification. Basic regulatory framework. Applicable to the food industry legislation.
- Unit 16. OCCUPATIONAL HAZARDS PREVENTION (II) Risk Factors (RF). Definition and classification. RF related to safety. RF linked to the environment. RF linked to the process and social behavior. RF linked to preventive management.
- Unit 17. OCCUPATIONAL HAZARDS PREVENTION (III) Organization of preventive work. Identification of risks. Risk evaluation. Selecting preventive measures. Implementing measures. monitoring system. Specific prevention measures. OHSAS occupational hazard prevention management system. ILO guidelines

PRACTICAL SYLLABUS:

Seminars / Workshops

- Ibero American Quality Management Model
- ISO 9001: 2008-UPDATE 9001: 2015
- Quality Management Model Awards
- Certified Organic Products
- Flowchart in the food industry. Examples
- DOP / IGP wine
- IGP spirits drinks
- Collaborative Trials
- Traceability as the foundation of analytical quality
- Integrated Production
- Models of integration of management systems



- Evaluation of an Integrated Management System
- Montilla Moriles PDO vinegar
- Lisbon Agreement. International DO
- BRC Global Standard
- Regulation of prevention services and other regulatory standards for safety and health matters
- IFS Global Standard

Field Practice:

Practice 1. Visits to Food Industries

READING

FUNDAMENTAL BIBLIOGRAPHY

- Abril Sánchez, C.E. y Enríquez Palomino, A. (2006). Manual para la integración de sistemas de gestión: calidad, medio ambiente y prevención de riesgos laborales. Fundación CONFEMETAL., Madrid
- AENOR. (2010). Gestión de la calidad. 4ª edición AENOR, Madrid.
- Block, M.R. y Marash I.R. (2004). Integración de la ISO 14001 en un sistema de gestión de la calidad. Ed. Fundación Confemetal, Madrid.
- Bolton, A. (2001) Sistemas de Gestión de la Calidad en la Industria Agroalimentaria. Ed. Acribia, S.A. Zaragoza.
- Compañó Beltrán, R., Ríos Castro, A. (2002). Garantía de la Calidad en los Laboratorios Analíticos. Ed. Síntesis S.A., Madrid.
- Phillips, A.W. (2010). Cómo gestionar con éxito una auditoría interna conforme a ISO 9001:2008. AENOR, Madrid.
- Rubio Romero, J.C. (2002). Gestión de la prevención de riesgos laborales: OHSAS 18001 - directrices OIT para su integración con calidad y medioambiente. Ediciones Díaz de Santos, Madrid.
- ISO 9000: 2005. Sistemas de Gestión de la Calidad. Fundamentos y Vocabulario.
- ISO 9001: 2008. Sistemas de Gestión de la Calidad. Requisitos
- ISO 22000: 2005. Sistemas de Gestión de la Inocuidad de los Alimentos
- ISO 9001: 2015

COMPLEMENTARY BIBLIOGRAPHY:

- Fernández de Pinedo, C. (2001). Manuales de Buenas Prácticas Ambientales. Cocina. Departamento de Medio Ambiente, Gobierno de Navarra.
- Instituto Nacional de Seguridad e Higiene en el Trabajo (2003). Manual de procedimientos de prevención de riesgos laborales. Guía de elaboración. Madrid.
- Instituto Nacional de Seguridad e Higiene en el Trabajo (1998). Evaluación de riesgos laborales. 2ª Ed. Madrid.
- ISO. Gestión medioambiental e ISO 14000.(1999). AENOR, Madrid.
- Lamprecht, J.L. (1997). Directrices para la implantación de un sistema de gestión



medioambiental. AENOR, Madrid.

- Ministerio de Agricultura, Pesca y Alimentación. (1999). Gestión de la Calidad en la Industria Alimentaria. Madrid.
- Moltó, J.I. (1998). Prevención de Riesgos Laborales en la Empresa. AENOR, Madrid.
- Romero Pastor, J. (2006). Sistema de gestión integrada: calidad, prevención y medio ambiente. Editorial Visión Libros.
- Ruiz Frutos, C. (2007). Salud laboral: conceptos y técnicas para la prevención de riesgos laborales. Elsevier España S.A. Madrid.
- Vandeville, P. y Gambier, C. (1998). La Auditoría de la Calidad. Metodología y Técnicas. AENOR, Madrid.
- “Modelo Europeo de Excelencia”. López Cubini, Rafael, Ministerio de Educación Cultura y Deporte, 2001.
- Introducción a la gestión de la calidad total. Ed. Delta Publicaciones, 2007. Miranda González, Francisco
- Clarificando el concepto de certificación: El caso español. Francisco Javier Miranda González. Universidad de Extremadura.
- Reglamento general de certificación de sistemas de gestión y de sus marcas de conformidad. AENOR

RECOMMENDED INTERNET LINKS

All the corresponding to official and professional organizations are recommended.

General:

<http://www.iso.org/iso/home.htm>

- <http://www.aec.es>

- <http://www.infocalidad.net>

- <http://www.alimenta-accion.com/2013/08/calidad-alimentaria-i-concepto.html>

- <http://www.alimenta-accion.com/2013/08/calidad-alimentaria-ii-metodos-de.html>

- <http://www.mapya.es>

Certification:

<http://www.aenor.es>

- http://www.bureauveritas.es/wps/wcm/connect/bv_es/Local

- http://www.es.sgs.com/es/home_es_v2

• <http://www.aenor.es/aenor/certificacion/sectores/alimentacion.asp>

• http://www.aenor.es/aenor/certificacion/seguridad/seguridad_brc.asp

• http://www.aenor.es/aenor/certificacion/seguridad/seguridad_ifs.asp

• http://www.aenor.es/aenor/certificacion/seguridad/seguridad_globalgap.asp



Accreditation:

- <http://www.enac.es>
- <http://www.european-accreditation.org/content/home/home.htm>

Quality and Safety of Food

- http://www.alimentacion.es/es/calidad_diferenciada/presentacion/default.aspx
- <http://www.mapa.es/es/alimentacion/alimentacion.htm>
- <http://ec.europa.eu/agriculture/quality/>
- http://ec.europa.eu/agriculture/organic/home_es
- <http://www.aesan.msc.es/>
- <http://www.efsa.europa.eu/>
- <http://www.magrama.gob.es/es/>

<http://www.clarkemodet.es/preguntas-frecuentes/Denominaciones-de-origen/Que-procedimiento-se-debe-seguir-para-presentar-la-solicitud-de-registro-de-una-denominacion-de-origen-o-una-indicacion-geografica-prottegida>

<http://www.wipo.int/lisbon/es/index.html>

<http://ec.europa.eu/agriculture/quality/door/list.html>

<http://www.magrama.gob.es/es/alimentacion/temas/calidadagroalimentaria/calidad-diferenciada/especialidades-tradicionales-garantizadas/>

Environmental management

- http://www.mma.es/portal/secciones/calidad_contaminacion/

Prevention of occupational hazards:

- <http://www.mtas.es/insht/index.htm>

