

TEACHING GUIDE

HEALTH AND FOOD SAFETY

MÓDULO	MATERIA	CURSO	SEMESTRE	CRÉDITOS	TIPO
HYGIENE FOOD SAFETY AND QUALITY MANAGEMENT	HEALTH AND FOOD SAFETY	3º	1º	6	TRONCAL
TEACHER					
<ul style="list-style-type: none"> <li>Marina Villalón Mir <a href="mailto:marinavi@ugr.es">marinavi@ugr.es</a></li> </ul>			Department of Nutrition and Food Science, 3rd floor, School of Pharmacy, Office 318 and 320. Phone number:958243865 Campus Cartuja S/N 18071 Granada		
			<b>OTHER DEGREE TO WHICH COULD BID</b>		
<b>Degree in Human Nutrition and Dietetics</b>			Degree in Science and Food Technology		
<b>RECOMMENDATIONS</b>					
<ul style="list-style-type: none"> <li>Having studied the subjects: Food Microbiology, Parasitology Food Toxicology Food and Culinary Technology.</li> </ul> Having adequate knowledge of: <ul style="list-style-type: none"> <li>Food Science</li> <li>Food Technology</li> </ul>					
<b>DESCRIPTION OF CONTENTS</b>					
<ul style="list-style-type: none"> <li>Hygiene, food safety and risk control systems.</li> <li>Training of professional food service.</li> <li>Implementation and monitoring of Quality Systems and General Hygiene Plans Food traceability.</li> <li>Advice on aspects of advertising, health claims and collaboration in consumer protection</li> </ul>					
<b>GENERAL AND SPECIFIC COMPETENCIES</b>					
<ul style="list-style-type: none"> <li><b>GENERAL COMPETENCIES:</b></li> </ul> <b>CG6.1:</b> Assist in the development, marketing, labeling, marketing communications and food products according to the social, scientific and law.					



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Página 1

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**CG7.1:** Participate in the management, organization and development of food services.

**CG7.2:** Develop, monitor and cooperate in planning menus and diets tailored to the characteristics of the group to which they are intended.

**CG7.3:** Intervening in the quality and safety of food products, facilities and processes.

**CG7.4:** Provide health and hygiene training and proper diet and nutrition staff involved in catering.

#### • SPECIFIC COMPETENCIES

**CEM3.1:** Develop, implement, evaluate and maintain proper hygiene practices, food security and risk control systems, applying the law.

**CEM3.2:** Participate in the design, organization and management of the various food services

**CEM3.3:** Assist in the implementation of quality systems.

**CEM3.4:** Assess, monitor and manage aspects of traceability in the food chain.

**CEM3.5 :** Know the aspects related to the economy and food business management

**CEM3.6:** Scientific and technical advice on foodstuffs and development thereof. Evaluate compliance with such advice

**CEM3.7 :** Participate in social marketing business equipment, advertising and health claims

**CEM3.8:** Collaborate on consumer protection in the context of food security.

#### OBJECTIVES (EXPRESSED AS EXPECTED RESULTS OF EDUCATION)

Knowing what the current legislation regarding food safety and be able to develop new safety standards and food make an inspection.

Can develop for a company catering food and quality control systems food (Hazard Analysis and Critical Control Points and General Hygiene Plans).HACCP

Power advise food businesses and catering aspects related to quality, food safety and the development of new products and labeling them.



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Página 2

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## DETAILED AGENDA COURSE

**Item 1.** Introduction. Concept of hygiene and food safety. Historical evolution. Current Importance. Objectives. Framework and strategies in food security policy.

**Item 2.** Dietary alterations. Pollution-causing agents. Polluting residue concept. Routes of food contamination. Routes of direct contamination. Indirect contamination pathways. Cross contamination. Foods high risk. Frauds and food adulteration.

**Item 3.** Self systems in the food sector: definition and objectives. General Hygiene Plans. Definition. Objective and current importance. Basic principles of hygiene General Plans. Basis for implementation in the food business.

**Item 4.** System hazard analysis and critical control points (HACCP). Objectives. Definition of hazards and critical control points. Principles and advantages of HACCP. Design and verification of the flowchart. Hazard analysis and preventive measures. Critical control points, critical limits, monitoring systems and corrective actions. Documentation and records.

**Item 5.** Food handling. Practice good hygiene. Unacceptable practices. Control of visits to the food handling area. Current Importance of the food handler. Handlers higher risk. Training process and control.

**Item 6:** Provider. Receipt of goods. Types of providers Industries Health Registry. Freight Hygiene. Hygiene in the reception of goods. Shoppersystems. Irregularities in purchases. Hygiene standards

**Item 7:** Cleaning Management caterers. Control cleaning policy: the items to be cleaned and the cleaning. The frequency of cleaning sheets. Cleaning and disinfection programs. Preventive control measures. Management of pest control in the catering business. Pest Control Policy and hygiene standards. Preventive and control risks in kitchens and catering establishments.

**Item 8:** Drug Policy and recipes hygiene standards. Standards of hygiene in the preparation and handling of cooked dishes

**Item 9:** Cooking and reheating. Temperatures. Thermometers. Hygiene standards thermometers. Records of validation and calibration of thermometers. Keeping food hot. Cooking and reheating policy and hygiene standards.

**Item 10:** Storage of goods. The dry storage. Standard hygiene products dry store (commissary). Refrigeration Food Storage. Frozen Storage.

**Item 11:** Management and Control of garbage.

**Item 12:** Management and control of food packaging. Food packaging and catering application. Hygienic packaging and hygiene standards in restaurants

**Item 13.** Practical application of a quality assurance system. General specifications and requirements. Identification data and activity.

## PRACTICAL AGENDA

### 1º Laboratory Practice:

#### Practical case nº 1: Fraud detection of milk adulteration

- Watered down milk.
- Skimming milk
- Determination of chloride in milk and cheese.
- Control of heat treatment and homogenization of milk.



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## Practical case nº2 : Analytical techniques in meat and meat products

- Determination of pH in meat
- Determination of phosphates in meat products
- Determination of starch content in meat products
- Visual inspection of the organoleptic characteristics of meat chopped

## Practical case nº 3: Training of food handlers.

- Test dietary risk assessment in the kitchen
- Video about real situations correct handling practices in catering.
- Workshop training for food handlers in catering kitchen

## Practical case nº4: Hygienic control of the steps involved in the preparation of a hot plate. Beef stew. Stages of the HACCP plan. Work templates. Control Sheets.

## Practical case nº5: Hygiene and control of consumption eggs.

- External examination of the egg
  - No instrumental
  - Use ovoscope
  - Technique of ultraviolet light
- Internal review Egg
- Commercial classification: weight
- Morphological Index
- Determination of ph
- egg carton labeling
- Egg dialing code

**2º Field Practices:** are voluntary and in a small number of students as they schedule a visit to a catering kitchen for hospital service.

## REFERENCES BIBLIOGRAPHYS

### BASIC BIBLIOGRAPHY:

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- FEHLHABER K, JANETSCHKE P. Higiene veterinaria de los alimentos. Zaragoza.Ed.Acribia, 1995.
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- FRAZIERWC, WESTHOFF DC. Microbiología de los alimentos. Zaragoza.Ed.Acribia, 2003.
- ICMSF. Microorganismos de los alimentos. Características de los patógenos microbianos. Zaragoza. Ed. Acribia, 1998.
- LARRAÑAGA IJ, CARBALLO JM, RODRÍGUEZ MM, FERNÁNDEZ JA. Control e higiene de los alimentos. Madrid.Ed. McGraw-Hill, 1999.
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Página 4

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  - PASCUAL ANDERSONMR. Enfermedades de origen alimentario: su prevención. Madrid. Ed.Díaz de Santos, 2005.
  - POLLEDO JF. Gestión de la seguridad alimentaria. Análisis de su aplicación efectiva. Madrid. Ed. AMV, 2006.
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  - Unión Europea. Libro Blanco sobre Seguridad Alimentaria. Comisión de las Comunidades Europeas. Bruselas, 2000.
  - World Health Organization Foodborne disease outbreaks: guidelines for investigation and control World Health Organization.

#### RECOMMENDED LINKS

- **Agencia Española de Seguridad alimentaria y Nutrición:** [www.aesan.msc.es/](http://www.aesan.msc.es/) Pagina Oficial de la Agencia Española de Seguridad Alimentaria donde se puede encontrar datos sobre campañas alimentarias y de seguridad.
- **Autoridad Europea de Seguridad Alimentaria:** [www.efsa.europa.eu](http://www.efsa.europa.eu). Pagina Oficial de la Unión Europea donde se puede encontrar datos sobre campañas alimentarias y de seguridad
- **Calidad Alimentaria.net:** [www.calidadalimentaria.com](http://www.calidadalimentaria.com).
- **Codex Alimentarius:** [www.codexalimentarius.net/web/index\\_es.jsp](http://www.codexalimentarius.net/web/index_es.jsp)
- **European Centre for Disease Prevention and Control:** [www.ecdc.europa.eu](http://www.ecdc.europa.eu)
- **European Food Information Council (EUFIC):** [www.eufic.org/index/es/](http://www.eufic.org/index/es/)
- **FAO/WHO Global Fora and Regional Conferences on Food Safety (FAO):** [www.foodsafetyforum.org](http://www.foodsafetyforum.org)
- **FDA´s Center for Food Safety and Applied Nutrition:** [www.cfsan.fda.gov](http://www.cfsan.fda.gov)
- **Federación Española de Hostelería:** [www.fehr.es](http://www.fehr.es)
- **Federación Española de Industrias de Alimentación y Bebidas (FIAB):** [www.fiab.es](http://www.fiab.es)
- **Food and Agriculture Organization:** [www.fao.org](http://www.fao.org)



- **Guía VETA. Guía de Sistemas de Vigilancia de las Enfermedades Transmitidas por Alimentos (VETA) y la Investigación de Brotes:**  
<http://epi.minsal.cl/epi/html/software/guias/VETA/E/homepage.htm>
- **International Portal on Food Safety, Animal and Plant Health:** [www.ipfsaph.org](http://www.ipfsaph.org)
- **Legislación Unión Europea:**  
[eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:364:0005:0024:ES:PDF](http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:364:0005:0024:ES:PDF)
- **Organización Mundial de la Salud:**  
[www.who.int/foodsafety/fs\\_management/infosan/en/](http://www.who.int/foodsafety/fs_management/infosan/en/)
- **Portal de Tecnologías y Mercados del sector alimentario:** [www.alimentatec.com](http://www.alimentatec.com)
- **Seguridad Alimentaria (CONSUMER EROSKI):** [www.consumaseguridad.com](http://www.consumaseguridad.com)
- **Seguridad Alimentaria:** [www.seguridadalimentaria.com](http://www.seguridadalimentaria.com)
- **Seguridad Alimentaria. Disposiciones Generales:**  
[www.europa.eu/legislation\\_summaries/food\\_safety/general\\_provisions/index\\_es.htm](http://www.europa.eu/legislation_summaries/food_safety/general_provisions/index_es.htm)

## KNOWLEDGE ASSESSMENT SYSTEMS

### 1. CONTINUOUS ASSESSMENT SYSTEM

Students who want to benefit from this system must have a 80% attendance at lectures. In this system, students can examine two partial qualifiers, being the 2nd part final exam. They should also make autonomous work groups (called seminar), on current issues or topics that can complement the agenda for theory. The footnote to theory test shall be the average of the two grades, being essential to have at least a four on each of the parties and the rating will be a 80% of the final grade. Self-employment will be given a 10% and the other 10% of the final grade shall be the grade earned in the practice exam. Evaluation will be based on the presentations and / or independent work exhibitions and seminars and examinations in which students must demonstrate the skills acquired.

Overcoming any of the tests will not be achieved without a uniform and balanced understanding of all the matter.

### 2. CONTINUOUS ASSESSMENT SYSTEM NO.

A student who does not have a 80% attendance at lecture, can not benefit from continuous assessment system shall only be entitled to a final exam. Not permitted to self-employment. The final grade is obtained by applying 90% to the score on the final exam and 10% to the score on the practice exam. Overcoming any of the tests will not be achieved without a uniform and balanced understanding of all the matter



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Página 6

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