



## IDENTIFYING DATA

### Chemical Risks in the Food Chain

Subject	Chemical Risks in the Food Chain			
Code	O01M142V01104			
Study programme	Máster Universitario en Ciencia y Tecnología Agroalimentaria y Ambiental			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish English			
Department				
Coordinator	Simal Gándara, Jesús			
Lecturers	Otero Fuertes, María Paz Simal Gándara, Jesús			
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Web	<a href="http://https://www.facebook.com/jesus.simalgandara">http://https://www.facebook.com/jesus.simalgandara</a>			
General description	According to the *FAO/*WHO, the Alimentary Security consists in guaranteeing to any person and anytime a physical and economic access to the necessary alimentary products WITHOUT RISKS.			
	The alimentary risks can result: of accidents, of natural causes, of ignorance/*inconsciencia, of abuses, of not respecting the rules and the laws, of insufficient examinations on the *inocuidad, of lacks in the training and information, of the research of profit...			
	The risk does not exist, but the alimentary products have to have a maximum of security, that is to say, have to be *exentos of pathogenic microorganisms, of waste of chemical products, of new ingredients of which do not know the consequences on a long-term basis, etc.			

## Training and Learning Results

Code	
A1	
C4	
D1	

## Expected results from this subject

Expected results from this subject	Training and Learning Results
To1 Know the physical foundations, chemists and biological related with the foods and his technological processes	C4
To7 Know and comprise the concepts related with the hygiene along all the process of production, transformation, conservation, distribution of foods; this is to possess the necessary knowledges of microbiology, *parasitología and alimentary toxicology; as well as the concerning the hygiene of the personnel, products and processes	A1 D1
To17 Capacity to Analyse and Evaluate the Alimentary Risks	C4
To18 Capacity to manage the alimentary security	C4
*B7 Purchase capacity in the taking of *decisiones	A1 D1
*B11 Skills of critical reasoning	A1 D1
*B13 autonomous Learning	A1 D1

**Contents**

## Topic

1. *CONTAMINANTES MICROBIOLOGICAL And PARASITIC	- Main responsible microorganisms of intoxications (virus, bacteria, yeasts and molds). *Protistas And other parasites (*protozoarios, seaweeds and *vermes). Prevention.
2. *CONTAMINANTES CHEMICAL	- Risks tied to the agriculture: *GMOs. Animal feeding. Phytosanitary. - Risks tied to the environment: radioactive Rests. *PCBs, dioxins and *furanos. Residual waters. Natural toxins. Materials for alimentary contact. - Risks tied to the alimentary habits: Reaction of *Maillard. *Nitrosaminas. *PAHs. *HCAs. Alcohol. Reduction of consumption of fats and cholesterol. Reduction of consumption of sugar. Free and antioxidant radicals. - Risks tied to the treatments of conservation: Additives and technological auxiliaries. Ionisation. - Allergies and alimentary intolerances: Symptoms. *Alérgenos Or *trofalérgenos. Allergies tied to alimentary technology. Modification of the *alergenicidad of proteins. Diagnostic. Labeling.

**Planning**

	Class hours	Hours outside the classroom	Total hours
Essay	5	20	25
Essay	5	20	25
Essay	5	20	25

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

**Methodologies**

Description

**Personalized assistance**

Tests	Description
Essay	
Essay	
Essay	

**Assessment**

Description	Qualification	Training and Learning Results
EssayYour content will be valued	20	
EssayYour content will be valued	40	
EssayYour content will be valued	40	

**Other comments on the Evaluation**

Those students that can not assist to class, as long as they justify it, have to negotiate in advance with the professor the way in that they will be evaluated.

**Sources of information****Basic Bibliography****Complementary Bibliography**

Proporcionada polo profesor,

Unión Europea, **Peligros químicos en nuestros alimentos**, Unión Europea, 2019

**Recommendations****Other comments**

In 2ª announcement would do a face-to-face oral proof or on-line on the minimum contents of the subject and on the contents of the work made.