Course Unit	Traceability and Safety			Field of study	Engineering and Similar Techniques		
Master in	Food Quality and Safety			School	School of Agriculture		
Academic Year	2020/2021	Year of study	1	Level	2-1	ECTS credits	6.0
Type	Semestral	Semester	2	Code	6369-508-1206-00-20		

Workload (hours)	162	Contact hours	T	TP	PL	TC	S	E	OT	O
			30	-	30	-	-	-	4	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tuturial; O - Other

Name(s) of lecturer(s): Fernando Jorge Ruivo Sousa, Maria Eugénia Madureira Gouveia

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Know and understand traceability systems and technical methodologies and tools for different types of food and feeds traceability.
2. Achieve technical knowledge and skills for Risk Assessment of food and feed related products and substances that are of health concern “regulated products” on the EU market.
3. Obtain, analyze and interpret data and toxicity parameters in the context of Risk assessment.
4. Nutrient intake and food consumption for pesticide risk assessment.
5. Existing maximum residue level (MRLs) for fitopharmaceuticals.
6. Understand the current regulations and legislation on products for plant protection.
7. Improve techniques and tools for certification implementations schemes.

Prerequisites

Not applicable

Course contents

Traceability fundamentals. Cost-benefits of traceability. Techniques for traceability examples: wine, fruits, and animal products. Risk Assessment. methods and steps on risk assessment. Pesticides peer review of active substances. Regulated and safety subjects, zoonoses, contaminants, antibiotics and hormones in animal production. Certification schemes of vegetal and animal productions.

Course contents (extended version)

1. Traceability fundamentals.
2. Cost-benefits of traceability.
3. Techniques for traceability and traceability examples: wine, fruits, and animal products.
4. Risk assessment and peer review of active substances. Methods and steps on risk assessment.
5. Pesticides risk assessment : Review of existing maximum residue level (MRL).
6. Pesticides peer review of active substances.
7. Certification schemes of vegetal and animal productions.

Recommended reading

1. George Bennet, 2010 Food Identiy Preservation and traceability; Safer Grains. Taylor& Francis, CRC
2. Maria Vulton, 2011. Animal identification and traceability. Background and issues. Agricultural issues and policies.
3. Ian Smith and Anthony Furness, 2006. Improving Traceability Ability in Food Processing and Distribuition
4. EFSA Journal and on line “Scientific Opinion”, “Reasoned Opinions” and “Scientific and Technical Reports” published by EFSA.

Teaching and learning methods

Audiovisual and multimedia tools utilised for lectures. Individual and group bibliograph search and document analysis . Study visits at different stages of the application of traceability techniques in different food products of plant or animal origin are also methods that promote interdisciplinary application and improve communications skills.

Assessment methods

1. Continuous evaluation - (Regular, Student Worker) (Final)
   - Practical Work - 50%
2. Theoretical evaluation - (Regular, Student Worker) (Final)
   - Final Written Exam - 50%
3. Exam - (Regular, Student Worker) (Supplementary, Special)
   - Final Written Exam - 100%

Language of instruction

Portuguese

Electronic validation

Fernando Jorge Ruivo Sousa, Maria Eugénia Madureira Gouveia	Alfredo Jorge Costa Teixeira	Maria Letícia Miranda Fernandes Estevinho	Elsa Cristina Dantas Ramalhosa
30-10-2020	30-10-2020	07-11-2020	07-11-2020