



No. _____ of _____

USAMV form 0704020209

SUBJECT OUTLINE

1. Information on the programme

1.1. Higher Education Institution	University of Agricultural Sciences and Veterinary Medicine
1.2. Faculty	Faculty of Food Science and Technology
1.3. Department	Food Science
1.4. Study field	Food Science
1.5. Education level ¹⁾	Master
1.6. Specialization/ Study Program	Food Quality Management
1.7. Form of education	Full time

2. Course Characteristics

2.1. Name of the discipline	Food Safety and Security							
2.2. Course coordinator	Assoc. Prof. Cristina Coman							
2.3. Seminar/ laboratory/ project coordinator	Assoc. Prof. Cristina Coman							
2.4. Year of study	II	2.5. Semester	III	2.6. Type of Evaluation	Continuous	2.7. Discipline status	Content ²	DS
							Compulsoriness ³	DO

3. Total estimated time (hours/semester for the teaching activities)

3.1. Hours per week – full time programme	3	of which care: 3.2. course	1	3.3. seminar/ laboratory/ project	2
3.4. Total number of hours in the curriculum	42	Of which: 3.5.course	14	3.6.seminar/laboratory	28
Distribution of the time allotted					
3.4.1.Study based on book, textbook, bibliography, notes					30
3.4.2. Additional documentation in the library, specialized electronic platforms and field					15
3.4.3. Preparing the seminars / laboratories / projects, subjects, essays, reports, portofolio					25
3.4.4.Tutorials					10
3.4.5.Examination					3
3.4.6. Other activities					
3.7. Total hours of individual study	83				
3.8. Total hours per semester	100				
3.9. Number of ECTS ⁴	4				

4. Prerequisites (is applicable)

4.1. of curriculum	Food chemistry, Biochemistry, Organic Chemistry, FQM-Techno-managerial Principles
4.2. of competences	Bachelor diploma or equivalent Certificate of language competence (english)

5. Conditions (if applicable)

5.1. for the lecture	Course presentation in pptx format: course Holder Logistic support: video projector, interactive whiteboard and PowerPoint presentations. Participation in a minimum of 50% of courses is a condition for participation in the exam.
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5.2. for the seminar/laboratory/ project	<p>During practical works, each student will develop an individual activity with laboratory materials.</p> <p>Academic discipline is imposed throughout the course of practical works.</p> <p>Laboratory/seminar notes: Food Safety and Security</p> <p>Place of laboratory: laboratory room</p> <p>Laboratory equipment: UV-Vis, FTIR, glassware, filters, analytical balance</p> <p>Specialized Software used: IR solution, Lambda25, Microsoft word and Excel</p> <p>Specific laboratory reagents: methanol, ethanol, other organic solvents</p> <p>Participation in 100% laboratory/seminar work is a condition for the exam participation.</p>
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6. Specific competences acquired

Professional competences	<p>C2. Apply regulations related to the manufacture of food and beverages.</p> <p>C6. Evaluate the quality standards.</p>
Transversal competences	

7. Course Objectives (based on the list of competences acquired)

7.1. Overall course objective	This course initiates and define the concepts of food safety/security , quality assurance.
7.2. Specific objectives	<ul style="list-style-type: none"> ▪ Advanced knowledge of the concepts of food safety and security ▪ Acquiring knowledge on aspects related to legislation, risk factors and documentation in food safety. ▪ Acquiring knowledge on specific analytical tools that can be used in food safety

8. Content

8.1.LECTURE Number of hours –14	Methods of teaching	Observations
1. Definition and classification, safety vs security	Lectures	2 hours
2. Food safety: physical , chemical and biological risk factors	Lectures	4 hours
3. Analytical methods applied in food safety	Lectures	2 hours
4. International and national legislation regarding the food safety	Lectures	4 hours
5. Structure of the food safety documents delivered by a company	Lectures	2 hours
6 Food safety in the agrifood chain	Lectures	2 hours
8.2.PRACTICAL WORK Number of hours – 28	Methods of teaching	
1. Risk factors, comparative analysis, case studies		2 seminars (4 hours)



2. Analytical methods for risk factors detection and quantification - rapid analysis, spectrometry, chromatography, targeted vs non targeted analysis, statistical data analysis	Seminar, case studies, discussions, debate argumentation, heuristic conversation	7 laboratories (14 hours)
3. International legislation – case studies FAO, WHO		2 seminars (4 hours)
4. Creating a portfolio with all required documentation regarding the food ingredients with risk potential		2 seminars (4 hours)
5. Knowledge verification		1 seminar (2 hours)
<i>Compulsory bibliography:</i>		
<ol style="list-style-type: none"> 1. P.A. Luning, F. Devlieghere and R. Verhé (eds), Safety in the agrifood chain, Wageningen Pres, 2006 2. Cynthia A. Roberts, The Food Safety Information Handbook Oryx Press, 2001 3. Veena Jha; Edward Elga, Environmental Regulation and Food Safety: Studies of Protection and Protectionism International Development Research Center, 2005 4. Ludwig Theuvsen, Achim Spiller, Martina Peupert and Gabriele Jahn, Quality management in food chains Wageningen Academic Publishers Books, 2007 		
<i>Optional bibliography:</i>		
<ol style="list-style-type: none"> 1. Paraschivescu V. – Asigurarea, Certificarea Și Controlul Calității Mărfurilor, Ed. Neuron, Focșani, 1994. 2. Scorei R. Și Colab. – “Ghid Practic Pentru Industria Agro-Alimentară”, Ed. Aius, Craiova 1998. 3. *** - Managementul Calității Și Asigurarea Calității – Colecție De Standarde, Ed. Tehnică, București, 1996. 4. Codex Alimentarius Standards (http://www.codexalimentarius.org/standards/en/) 5. European Union: European Food Safety Authority (http://www.efsa.europa.eu/) 6. Food and Agriculture Organisation (http://www.fao.org/home/en/) 7. Institute of Food Science and Technology (http://www.ifst.org) 		

9. Corroborating the course content with the expectations of the epistemic community representatives, of the professional associations and of the relevant stakeholders in the corresponding field

The course curriculum meets the requirements for a qualified preparation, harmonized with the same master program at Wageningen University (eg Food safety in the agrifood chain and development for food industry) and topical content (compliance with legal regulations, compliance with the latest standards in the field)
The course is important / fundamental for the development of working skills as future specialists in the graduated field.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percent of the final grade
10.4. Lecture	Capacity of students to describe notions related to food safety and security Logic, correct and coherent application of the concept learned	Exam	50%
10.5. Seminar/Laboratory	Students will discuss the case studies and create a portfolio on a food containing the ingredients at risk	Colloquim	50%
<p>10.6. Minimum performance standards Knowledge 50% of the information contained in the course. Knowledge 50% of the information provided at practical work / seminar. 100% attendance at practical work / seminars is mandatory. Attendance at 50% courses is a condition for entering the exam. Final grade: (Exam grade + Colloquim grade)/2</p>			

¹ Level of study- to be chosen one of the following - Bachelor/Post graduate/Doctoral

² Course regime (content) – for bachelor level it will be chosen one of the following - **DF** (fundamental subject), **DD** (subject in the domain), **DS** (specific subject), **DC** (complementary subject).



³ Course regime (compulsory level) - to be chosen one of the following - **DI** (compulsory subject), **DO** (optional subject), **DFac** (facultative subject)

⁴ One ECTS is equivalent with 25 de hours of study (didactical and individual study).

Filled it on
06.09.2024

Course coordinator.
Assist. Prof. Cristina COMAN

Laboratory work/seminar coordinator
Assist. Prof. Cristina COMAN

Subject coordinator
Assist. Prof. Cristina COMAN

Approved by the
Department on
12.09.2024

Department manager
Prof. Ramona SUHAROSCHI

Approved by the Faculty
Council on
27.09.2024

Dean
Prof. Elena Mudura