No._____of _____ **USAMV–CN-0704010105**

SUBJECT OUTLINE

1. Information on the programme

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Faculty of Food Science and Technology
1.3. Department	Food Engineering
1.4. Field of study	Food Engineering
1.5.Education level	Post graduate
1.6.Specialization/ Study programme	Food Quality Management
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	**Quality assurance in the agrifood chain**							
2.2. Course coordinator				Associate Prof. LoredanaFlorina LEOPOLD				
2.3. Seminar/ laboratory/ project coordinator				Associate Prof. Loredana Florina LEOPOLD				
2.4. Year of study	I	2.5. Semeste	II	2.6. Type of evaluation	summative	2.7. Discipline status	Content[2]	D C
							Compulsoriness[3]	DI

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time programme	2	out of which: 3.2. lecture	2	3.3. seminar/ laboratory/ project	2
3.4.Total number of hours in the curriculum	56	Out of which: 3.5.lecture	28	3.6.seminar/laboratory	28

Distribution of the time allotted	hours
3.4.1. Study based on book, textbook, bibliography and notes	39
3.4.2. Additional documentation in the library, specialized electronic platforms and field	30
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays	30
3.4.4.Tutorials	10
3.4.5.Examinations	10
3.4.6. Other activities	

3.7. Total hours of individual study	119
3.8. Total hours per semester	175
3.9. Number of credits[4]	7

4. Prerequisites (is applicable)

4.1. curriculum-related	Food chemistry, FQM-Techno-managerial Principles
4.2. skills-related	Bachelor diploma or equivalent Certificate of language competence (english)

5. Conditions (if applicable)

5.1. for the lecture	The course is interactive, students can ask questions regarding the content of lecture. Academic discipline requires compliance with the start and end of the course. We do not allow any other activities during the lecture, mobile phones will be turned off.
5.2. for the seminar/ laboratory/ project	During practical works, each student will develop an individual activity with laboratory materials (made available in the book that describes the laboratory work). Academic discipline is imposed throughout the course of practical works.

6. Specific competences acquired

6.1 Professional competences	C2.1. Knowledge and deepening of scientific research methods for food quality and safety C2.2. An integrated approach for food quality and safety from a social, economic, ethical and cultural point of view C2.3. Use of specific research methodologies to increase food quality and safety C2.4. Use of criteria and methods for assessing food quality and safety to optimize agri-food technologies C5.1. Use of principles and criteria for conducting internal and external audits in the field of food quality and safety C5.2. Explanation and interpretation of methods for performing internal and external audit for certification of quality and food safety management C5.3. Use of reference standards for internal and external audit design in the food industry C5.4. Use of basic practices for conducting internal and external audits in food industry units C5.5. Development of a model plan for conducting the audit of food quality and safety
6.2 Transversal competences	▪ To demonstrate the student ability to communicate and work in a team ▪ To be able to develop interdisciplinary projects on food quality ▪ To demonstrate the need for continuous improvement of quality ▪ To participate in research programs related to food quality and safety

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

7.1. Overall course objective	This course initiate and define the concepts of food safety/security , quality assurance. There are presented, the developments of different QA systems, from Good practices to ISO 9000, 9001, 9004, HACCP. The auality assuance process and the auditing (internal and external) is discussed, with practical implications for food companies.
7.2. Specific objectives	Advanced knowledge of the food product quality assurance, the role of research and innovation to create new products, to seek continue improvements and make appropriate controls in all chain steps.Ability to compare the main technological aspects for the food production, including the role of the company management.

8. C

8.1.COURSE **Number of hours –28**	Methods of teaching	Observations
1 Short history and legislation related to quality assurance	Lectures	1 lecture (2 hrs)
2.Good practices : GAP, GMP, GLP, GHP		2 lectures (4 hrs)
3 Good manufacturing practice codes for food production		1 lecture (2 hrs)
4 Hazard Analysis Critical Control Points (HACCP)		2 lectures (4 hrs)
5 Developing and illustration of a HACCP plan		1 lecture (2 hrs)
6 ISO series or quality assurance		1 lecture (2 hrs)
7 Principles and applications of ISO 9000:2000, 9004:2000		1 lecture (2 hrs)
8 Quality systems in the animal production sector		1 lecture (2 hrs)
9 Quality systems in the vegetalke and fruit-derived production sector		1 lecture (2 hrs)
10 Quality system for the retails		1 lecture (2 hrs)
11 Quality auditing and certification		1 lecture (2 hrs)
12.Quality policy and business strategy related to quality assurance: sstrategic alternatives, benchmarking, quality policy		1 lecture (2 hrs)

8.2.PRACTICAL WORK **Number of hours – 14**		
1. Good practices: classification and specific features – 4 case studies	Seminars	4 seminars (8 hours)
2. Quality systems in the animal production sector – 4 case studies	Seminars, Case study.	4 seminars (8 hours)
3. Quality systems in the vegetalbe and fruit-derived production sector- – 4 case studies	Seminars, Case study.	4 seminars (8 hours)
4. Applications of ISO 9000:2000, 9004:2000	Seminar	1 seminar (2 hours)
5. Verification - Colloquium	Verification of knowledge	2 hours

Compulsory bibliography:

1. Luning P.A., W.J.Marcelis, W.M.F.Jongen (eds.), Food Quality management, a techno-managerial approach, Wageningen Pres, 2002
2. P.A. Luning, F. Devlieghere and R. Verhé (eds), Safety in the agrifood chain, Wageningen Pres, 2006
3. Froman B. – "Manualul Calităţii", Ed. Tehnică, Bucureşti, 1998.
4. Multon J.L. – "La Qualite Des Produits Alimentaires", Technique & Documentation – Lavoisier, 1994

Optional bibliography:

1. Paraschivescu V. – Asigurarea, Certificarea Şi Controlul Calităţii Mărfurilor, Ed. Neuron, Focşani, 1994.
2. Scorei R. Şi Colab. – "Ghid Practic Pentru Industria Agro-Alimentară", Ed. Aius, Craiova 1998.
3. *** - Managementul Calităţii Şi Asigurarea Calităţii – Colecţie De Standarde, Ed. Tehnică, Bucureşti, 1996.

4.
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)

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Capacity of students to describe the flow of the new product or process development. Considering the need for quality control and improvement	Exam	50%
10.5. Seminar/Laboratory	Students discuss the case studies and solve the quiz questions	Colloquium	50%
10.6. Minimum performance standards Course: Minimal standards: Admitted Seminars: Minimal standard: marks			

[1] Education levels- choose of the three options: Bachelor/ * Master/Ph.D.

[2] Discipline status (content)- for the undergraduate level, choose one of the options:- **FD** (fundamental discipline), **BD** (basic discipline), **CS** (specific disciplines-clinical sciences), **AP** (specific disciplines-animal production), **FH** (specific disciplines-food hygiene), **UO** (disciplines based on the university's options).

[3/] Discipline status (compulsoriness)- choose one of the options – **CD** (compulsory discipline) **OD** (optional discipline) **ED** (elective discipline).

[4] One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

[5 / *] Disciplines: AK- Advanced knowledge, CT- Complementary Training, S- Synthesis

ator
Associate Prof. Loredana LEOPOLD

Filled in on
10.09.2021

Course coordinator
Associate Prof. Loredana LEOPOLD

Approved by the
Department on
22.09.2021

Subject coordinator
Associate Prof. Loredana LEOPOLD

Approved by the Faculty
Council on 28.09.2021

Head of the Department
Prof. PhD. Ramona Suharoschi

Dean
Prof. PhD. Elena Mudura