No_____from _____ **Form code USAMV–CN-0705010107**

COURSE DESCRIPTION

1. Information on the programme

1.1. Higher Education Institution	**University of Agricultural Sciences and Veterinary-Medicine Cluj-Napoca**
1.2. Faculty	**Food Science and Technology**
1.3. Department	**Food Engineering**
1.4. Study field	**Food Engineering**
1.5. Level field[1)]	**Master**
1.6. Specialization/ Study Program	**System processing and food quality control**
1.7. Form of education	IF

2. Information on the discipline

2.1. Name of the course	**Food traceability in the food chain**							
2.2. Course leader				Prof. Dr. Muste Sevastița				
2.3. Coordinator of seminary/laboratory activity/project				Prof. Dr. Muste Sevastița				
2.4. Year of study	**I**	2.5. Semester	**II**	2.6. Type of evaluation	Continous	2.7. Course regime	Content [2]	DS
							Level of compulsory [3]	DI

3. Total estimated time (teaching hours per semester)

3.1. Number of hours/week – frequency form	3	of which : 3.2. course	2	3.3. seminary/ laboratory/ project	1
3.4. Total hours in the curricula	42	of which: 3.5.course	28	3.6.seminary/laboratory	14
Distribution of time					Hours
3.4.1.. Study based on handbook, notes, bibliography					22
3.4.2. Extra documentation in the library, on specific electronic platforms and on field					26
3.4.3. Preparation of seminaries/ laboratories/ projects, themes, papers, portfolies and essays					30
3.4.4.Tutorial					20
3.4.5. Examination					10
3.4.6. Other activities					
3.7. Total hours of individual study	108				
3.8. Total hours per semester	150				
3.9. Number of ECTS[4]	6				

4. Prerequisites (if applicable)

4.1. of curriculum	Knowledge of: vegetable raw materials, organic chemistry, chemistry of food, principles and methods of conservation of agro-food microbiology.
4.2. of competences	Identification, description and appropriate use of specific notions of product quality Food quality management and food safety management systems requirements.

5. Conditions (if applicable)

5.1. of course development	The course is interactive, students can ask questions regarding the content of the exposure. Academic discipline enforce Time start and end of the course. Space and facilities: • Classroom equipped with: whiteboard, projector and computer

	Obligations of students: We do not allow any other activities during the lecture, mobile phones are closed.
5.2. of seminary/laboratory/ project development	Space and facilities: • seminar room equipped with: board, projector and computer Obligations of students: • Each student will complete and present, on the basis of preset themes, a case study on the use of plants in food Condiment. • academic disciplines is required during the entire progress of the work.

6. Specific competences acquired

Professional competences	C3.4 Use of criteria and methods for evaluating agri-food production for expertise, studies, consulting
Transversal competences	6. Execution of complex professional tasks, in conditions of autonomy and professional independence

7. Subject objectives (as a result of the specific acquired competences)

7.1. Subject general objectives	Familiarize students with the concepts needed for an activity design and implementation of traceability systems; Explanation and interpretation of ideas, projects, processes, and theoretical and practical content of the discipline;
7.2. Specific objectives	Learning the conceptual framework and the importance of traceability systems quality and food safety; Description of methods for tracing of consignments of products and their link with lots of raw materials; Develop procedures for traceability; Preparation of documents / records Correlation with other specific disciplines of specialization;

8. Contents

8.1.COURSE **Number of hours – 28**	Methods of teaching	Observations
importance of traceability in systems management quality and food safety.	Lecture, explanation, heuristic conversation	1 lecture (2 hours)
Legislative regulations on traceability Food products.	Lecture, explanation, heuristic conversation	2 lectures (4 hours)
Develop documentation and management of traceability system.	Lecture, explanation, heuristic conversation	2 lectures (4 hours)
Vegetable traceability in agri-food chain. Structure traceability systems • grain traceability systems.		1 lecture (2hours)
Vegetable traceability in agri-food chain. Structure traceability systems	Lecture, explanation, heuristic conversation	
• Traceability Systems vegetables.		1 lecture (2hours)
Vegetable traceability in agri-food chain. Structure traceability systems		

• oil traceability systems. Vegetable traceability in agri-food chain. Structure traceability systems	Lecture, explanation, heuristic conversation	1 lecture (2 hours)
• tuberculifere materials traceability systems and root. Vegetable traceability in agri-food chain. Structure traceability systems	Lecture, explanation, heuristic conversation	
• Traceability Systems fruit. Vegetable traceability in agri-food chain. Structure traceability systems	Lecture, explanation, heuristic conversation	1 lecture (2hours)
• traceability of organic food. Vegetable traceability in agri-food chain. Structure traceability systems	Lecture, explanation, heuristic conversation	1 lecture (2hours)
• Changes in quality during storage and sale of food products.	Lecture, explanation, heuristic conversation	1 lecture (2hours)
The conceptual framework of withdrawal / recall of the market.	Lecture, explanation, heuristic conversation	3 lectures (6hours)

8.2. PRACTICAL WORK **Number of hours – 14**		
Case study describing methods for tracing the product batches and link them with lots of raw materials. • traceability of foodstuffs (wheat - wheat products) • traceability of food products (sugar beet-sugar confectionery) • traceability of food (plant oil - vegetable oil)	Simulation of situations, methods of group work, individual and frontal methods of developing critical thinking	3 seminars (6 hours)
Case study on the preparation of documents / records and highlighting the importance of storage systems the SMSA.	Simulation of situations, methods of group work, individual and frontal methods of developing critical thinking	1 seminar (2 hours)
Case study on the development of procedures to track, control procedures and establishing documents and records control responsibilities.	Simulation of situations, methods of group work, individual and frontal methods of developing critical thinking	1 seminars (2 hours)
Verification of knowledge. Developing and presenting a case study based on predetermined basis.	Simulation of situations, methods of group work, individual and frontal methods of developing critical thinking	2 seminars (4 hours)

Compulsory Bibliography:

1. Stănciuc, N, Rapeanu, G., Stanciu, S. (2011). Trasabilitate. Editura Academica, Galati.
2. Regulamentul (CE) nr. 178/2002 al Parlamentului European şi al Consiliului din 28 ianuarie 2002 de stabilire a principiilor şi a cerinţelor generale ale legislaţiei alimentare, de instituire a Autorităţii Europene pentru Siguranţa Alimentară şi de stabilire a procedurilor în domeniul siguranţei produselor alimentare

Facultative Bibliography:

1. SR EN ISO 22005-2007: Trasabilitatea în lanţul alimentar. Principii generale şi cerinţe fundamentale pentru proiectarea şi implementarea sistemului.
2. SR ISO 9001-2008, Sisteme de management al calităţii. Cerinţe.
3. SR EN ISO 9000-2006 Sisteme de management a calităţii. Principii fundamentale şi vocabular

9. Correlations between the subject against the expectations of the epistemic community representatives, of the professional associations and employers' representatives in the domain

In order to identify ways of modernization and continuous improvement of teaching and course content with the current issues and practical problems teachers participate in various national and international conferences, workshops (with guests from the economic environment), the exhibition stand food industry (eg agriculture, Festival food, Veterinary Medicine Cluj-Napoca) and meetings of professional associations (eg ASIAR Romania) being debated current issues and future food production in Romania and the European Union and which interacts with the private / prospective employers of graduates. Knowledge taught in the discipline are necessary for understanding biotechnology processes that occur in food production.

10. Evaluation

Type of activity	10.1. Evaluation criteria	10.2. Evaluation methods	10.3. Percent of the final grade
10.4. Course	Provide students with general and particular aspects of food traceability in the agri-food chain. Knowledge of the general characteristics of traceability systems. Learning the conceptual framework and the importance of traceability in quality systems and food safety; Traceability systems in the food industry	verification	50%
10.5. Seminary/Laboratory	Knowing by each master route and mandatory records to identify food traseaului agri-food chain. Participation / involvement.	Lecture support	50 %
10.6. Minimal standard of performance			

[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 25-30 de hours of study (didactical and individual study).

Date of competition
9.09.2021

Course coordinator
Prof. Univ. Dr. Muste Sevastița

Coordinator of the laboratory/seminary
Prof. Univ. Dr. Muste Sevastița

Date of Department's approval
22.09.2021

Coordinator discipline
Prof. dr. Sevastita Muste

Approved by the Faculty Council on
28.09.2021

Dean of the faculty

Prof. dr. Elena Mudura

Department Manager
Prof. Univ. Dr. Muste Sevastița