



No. _____ of _____

USAMV form 0703040101

COURSE DESCRIPTION

1. Information on the programme

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Food science and technology
1.3. Department	Food engineering
1.4. Field of study	Food engineering
1.5. Education level	Bachelor
1.6. Specialization/ Study programme	Food engineering (IPA)
1.7. Form of education	Full time

2. Information on the discipline

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2.1. Name of the discipline		Control and quality assurance in the food industry 1						
2.2. Course coordinator			Prof. dr. Sevastita Muste/ Conf.dr. Crina Mureșan					
2.3. Seminar/ laboratory/ project coordinator			Lecturer dr.. Andruța Mureșan/ Lecturer dr. Marc Romina					
2.4. Year of study	IV	2.5. Semester	VII	2.6. Type of evaluation	Exam	2.7. Discipline status	Content ²	DS
							Compulsoriness ³	DI

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time programme	4	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					20
3.4.2. Additional documentation in the library, specialized electronic platforms and field					5
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					5
3.4.4. Tutorials					7
3.4.5. Examinations					7
3.4.6. Other activities					
3.7. Total hours of individual study	44				
3.8. Total hours per semester	100				
3.9. Number of credits ⁴	4				

4. Prerequisites (is applicable)

4.1. curriculum-related	Biochemistry, Plant raw materials, Hygiene, Toxicology
4.2. skills-related	The student must have knowledge of food chemistry

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

Professional competences	C1.1. To describe and use the basic concepts, theories and methods in the control of raw materials, regarding the main physico-chemical characteristics of the vegetable raw materials involved in the food industry. C1.3. Application of the basic principles and methods of control of plant raw materials for solving engineering and technological problems, including those related to food safety C5.3. To identify the problems specific to food safety and the responsibilities related to their solution by controlling the quality of raw materials
Transversal competences	CT2 Application of interrelation techniques within a team; amplifying and refining the empathic capacities of interpersonal communication and assuming specific attributions in carrying out the group activity in order to treat / resolve individual / group conflicts, as well as the optimal time management

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

7.1. Overall course objective	Acquiring knowledge regarding the quality of raw materials of non-animal origin.
7.2. Specific objectives	Understand the importance of the factors that influence the quality of raw materials of non-animal origin in the food industry. To know the quality parameters of the raw materials of non-animal origin and their influence on capitalization means To know the devices and methods for determining the quality of non-animal raw materials. To understand how to elaborate a Quality Manual, respectively a General Procedure, for a food industry unit.

8. Content

8.1. LECTURE Number of hours – 28	Teaching methods	Notes
The concept of quality, methods and procedures for assessing the quality of agricultural products. General aspects of food quality General aspects of food safety. Types of food hazards and main sources of contamination. Good Manufacturing Practices (GMP) - system application requirements Food quality manual	Lecture Lecture, Heuristic Conversation, Explanation	1 lecture
Quality characteristics and main technical indicators for agricultural products, criteria for assessing the quality of wheat, rye, barley, corn, grains legumes (peas, beans, soybeans, chickpeas, lupins, beans), oilseeds (sunflower, flaxseed oil, rapeseed),	Lecture, Heuristic Conversation, Explanation	2 lectures
Quality characteristics and main technical indicators for agricultural products, criteria for assessing the quality of sugar beet roots, the quality of potato tubers, the quality of hop cones. The nutritional characteristics of vegetables. Quality control of solano-fruity vegetables and cucurbits	Lecture, Heuristic Conversation, Explanation	2lecture
Quality control of root, bulbous vegetables Quality control of leafy, perennial, cabbage vegetables Fruit quality control (apples, pears, quinces, cherries, sour cherries, plums, apricots, peaches, strawberries, raspberries, blackberries, blueberries)	Lecture, Heuristic Conversation, Explanation	1 lecture



<p>Quality control of nuts (hazelnut, walnut, chestnut)</p> <p>Mushroom quality control</p> <p>Overview of the quality system</p> <p>The responsibility of the management of the enterprises regarding the quality assurance. Quality policy</p> <p>Organization of the quality system</p> <p>Quality system documentation</p> <p>Quality Manual</p> <p>Purpose and elaboration</p> <p>Presentation of the enterprise (unit)</p> <p>Abbreviations</p> <p>Quality manual management</p> <p>Quality policy and objectives</p> <p>Premises, Equipment, Consumables</p> <p>Processing of analysis requests (tests) and samples received</p> <p>Quality Manual</p> <p>Design and improvement</p> <p>Manufacturing technology</p> <p>Supply control, manufacturing processes, projects</p> <p>Functional requirements of projects</p> <p>Project verification.</p> <p>Product identification and traceability</p> <p>Analysis and control of non-compliant products</p> <p>Document Control</p> <p>Corrective actions</p> <p>Internal quality audit</p> <p>Staff training and motivation</p> <p>Quality records</p> <p>Examples</p> <p>Quality Manual</p> <p>Procedures, instructions, operating methods and records</p> <p>Document structure</p> <p>Writing procedures. Examples</p> <p>Work instructions</p> <p>Quality records and registration forms</p>	<p>Lecture, Heuristic Conversation, Explanation</p> <p>Lecture, Heuristic Conversation, Explanation</p> <p>Lecture, Heuristic Conversation, Explanation</p> <p>Lecture, Heuristic Conversation, Explanation</p>	<p>1 lecture</p> <p>1 lecture</p> <p>3 lecture</p> <p>2lecture</p>
<p>8.2. PRACTICAL WORK</p> <p>Number of hours – 28</p> <p>Work safety and protection; training on the use of the laboratory equipment;</p> <p>Control and quality of fresh, frozen and dehydrated vegetables and fruits</p> <p>Control and quality of cereals, grain legumes, oilseeds and tubers</p> <p>Control and quality of hop</p> <p>Control and quality of spicy and flavoring plants</p>	<p>Teaching methods</p> <p>Heuristic conversation, experiment, teamwork</p> <p>Heuristic conversation, experiment, teamwork</p> <p>Heuristic conversation, experiment, teamwork</p> <p>Heuristic conversation, experiment, teamwork</p>	<p>Notes</p> <p>1 work lab</p> <p>2 work labs</p> <p>2 work labs</p> <p>1 work lab</p> <p>1 work lab</p>



UNIVERSITATEA DE ȘTIINȚE AGRICOLE ȘI MEDICINĂ VETERINARĂ CLUJ-NAPOCA

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www.usamvcluj.ro

Knowledge assessment	Heuristic conversation, experiment, teamwork	
Elaboration of documents according to SR EN ISO 9001.	Heuristic conversation, experiment, teamwork	7 work labs
Compulsory bibliography: <ol style="list-style-type: none"> 1. Muste Sevastița, 2021, Lecture notes 2. Muresan Crina, 2021 Lecture notes 3. Muste, Sevastița, Muresan Crina, 2011, Controlul calitatii materiilor prime de origine vegetala, - Caiet de lucrari practice, Editura AcademicPres 4. Andruta Muresan, 2018, Controlul calitatii produselor vegetale, - Caiet de lucrari practice, Editura Mega Cluj-Napoca. 5. Apostu S., 2009, Managementul calității totale, Editura Risoprint Cluj-Napoca 		
Optional bibliography: <ol style="list-style-type: none"> 1. Banu, C., col., 2002, Calitatea și controlul calității produselor alimentare, Editura Agir, București 		

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

In order to identify ways to modernize and continuously improve the teaching and content of courses, with the latest topics and practical issues, teachers participate in conferences, scientific symposia but also in meetings and international fairs where they interact with the private sector / potential employers graduates. The knowledge taught in the discipline is necessary to understand the technological processes in order to obtain and control the quality of food.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Knowledge of the factors that influence the quality of non-animal raw materials in the food industry. Quality parameters for raw materials of non-animal origin used in the food industry	Oral exam	70%
10.5. Seminar/Laboratory	Knowledge of the principles for determining the physico-chemical characteristics of plant raw materials. Use of devices for determining quality parameters. Realizing a general procedure for a food processing unit of non-animal origin.	Presentation Colloquy	30%

10.6. Minimum performance standards

Description of the quality control of a vegetal raw material, using precise methods, devices, installations and techniques applied and interpretation of the obtained results

• Identifying solutions for maintaining the quality of raw materials during the technological process

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 hours of study (didactical and individual study).

Course coordinator

Prof. dr. Sevastița Muste
Assoc. prof. dr. Crina Mureșan

Laboratory work/seminar coordinator
Lecturer dr. Andruta Muresan

Lecturer dr. Marc Romina

Filled in on
8.09.2021



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Subject coordinator
Prof. dr. Sevastita Muste
Assoc. prof. dr. Crina Mureșan

Approved by the
Department on
22.09.2021

Head of the Department
Prof. dr. Sevastita Muste

Approved by the Faculty
Council on
28.09.2021

Dean
Prof. dr. Elena Mudura