



No. _____ of _____

USAMV form 0704010209

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	Good practices in producing raw agrifood products							
2.2. Course coordinator	Vlad Mureșan PhD, Associate Professor							
2.3. Seminar/ laboratory/ project coordinator	Vlad Mureșan PhD, Associate Professor							
2.4. Year of study	I	2.5. Semester	I	2.6. Type of evaluation	continuous	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	2	out of which: 3.2. lecture	1	3.3. seminar/ laboratory/ project	1
3.4. Total number of hours in the curriculum	28	Out of which: 3.5. lecture	14	3.6. seminar/ laboratory	14
Distribution of the time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					5
3.4.2. Additional documentation in the library, specialized electronic platforms and field					27
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					30
3.4.4. Tutorials					5
3.4.5. Examinations					5
3.4.6. Other activities					
3.7. Total hours of individual study	72				
3.8. Total hours per semester	100				
3.9. Number of credits ⁴	4				

4. Prerequisites (is applicable)

4.1. curriculum-related	Raw agri-food materials food chemistry and biochemistry.
4.2. skills-related	Certificate of linguistic competence (English) Master's student must know the chemical composition and characteristics of the main food groups.

5. Conditions (if applicable)



5.1. for the lecture	<p>Teaching manuals: Lecture notes:- Lecture notes GOOD PRACTICES IN PRODUCING RAW AGRIFOOD PRODUCTS, Pușcaș Andreea, PhD. Course presentation in pptx format: course Holder Assoc. Prof. PhD. Pușcaș Andreea. 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.</p> <p>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. Classroom equipped with: board, projector and computer</p>
5.2. for the seminar/ laboratory/ project	<p>Teaching manuals: Andreea Pușcaș, Vlad Mureșan, GOOD PRACTICES IN PRODUCING RAW AGRIFOOD PRODUCTS Workbook (2022), ISBN 978-606-020-451-0, Editura Mega, Cluj-Napoca. Laboratory/seminar notes: Seminary Notes, GOOD PRACTICES IN PRODUCING RAW AGRIFOOD PRODUCTS, Pușcaș Andreea, PhD. Place of laboratory: laboratory room 20 / place of private partner sector Laboratory equipment: specific glassware, sink, drying oven, balance, Specialized Software used: Power point, Excel, Participation in 100% laboratory/seminar work is a condition for the exam participation 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.</p>

6. Specific competences acquired

Professional competences	<p>C2 – apply regulations related to the manufacture of food and beverages</p> <p>Applies and follows national, international and domestic requirements stated in standards, regulations and other specifications related to food and beverage manufacturing.</p> <p>C3 – apply good manufacturing practices (GMP)</p> <p>Enforces food manufacturing regulations and food safety compliance. Use food safety procedures based on Good Manufacturing Practices (GMP).</p>
Transversal competences	

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

7.1. Overall course objective	<p>Specific subject for the advanced knowledge of good agricultural practices in the production of agro-food raw materials</p> <p>Together with the other disciplines in the curriculum, it ensures the implementation and formation of complex concepts on Knowledge of quality indicators of raw materials and finished products (sunflower oil); Interpretation of analytical results of raw materials, intermediate products and finished oil and margarine industry.</p>
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7.2. Specific objectives

Knowledge of best practices in obtaining agrifood products;
 Design and development of specific operational programs based on GAP;
 Correlation with other courses specific to food industry quality and safety systems, concerning the content of international management standards;
 Explain and exemplify the notions;
 Fostering active participation of master students.
 Obtaining learning outcomes that aim in the formation of skills and abilities based on the correlation of the information received with those acquired in other disciplines such as Techno-managerial principles in the agrifood chain, Quality assurance in the Agrifood chain.

8. Content

8.1.LECTURE Number of hours – 14	Teaching methods	Notes
General considerations on food raw materials production. Standardization of agriculture. Diet-health relationship, fundamental aspect of food security. FAO's role in animal production. Steps to sustainable livestock	Lecture, explanation, heuristic conversation, debate	1 lecture
Good practices in production and storage of cereals and legumes	Lecture, explanation, heuristic conversation, debate	1 lecture
Good practices in production and storage of horticultural products	Lecture, explanation, heuristic conversation, debate	1 lecture
Good Agricultural Practices for dairy farming. 1. Animal health 2. Milking hygiene 3. Animal feeding and water 4. Animal welfare 5. Environment 6. Socio-economic management	Lecture, explanation, heuristic conversation, debate	1 lecture
Good Agricultural Practices for livestock – meat as raw agri-food product 1. General farm management 2. Animal health management 3. Veterinary medicines and biologicals 4. Animal feeding and watering 5. Environment and infrastructure 6. Animal and product handling	Lecture, explanation, heuristic conversation, debate	1 lecture
Good Agricultural Practices in egg productions farms 1. <i>Farm components</i> (1.1 Farm location; 1.2 Farm layout; 1.3 Housing) 2. <i>Feed and water</i> (2.1 Feed supply; 2.2 List of veterinary products and banned chemicals; 2.3 Water quality and treatment of water) 3. <i>Farm management</i> (3.1 Farm manual; 3.2 Personnel; 3.3 Competency; 3.4 Hygiene and sanitation 4. <i>Chicken health management</i> (4.1 Introduction of new stock; 4.2 Surveillance and control of diseases; Laboratory testing, Protocols when disease	Lecture, explanation, heuristic conversation, debate	1 lecture



<p>is suspected, Treatment, Animal welfare 5. <i>Transportation and storage</i> (5.1 Transportation 5.2 Storage) 6. <i>Record keeping</i> 7. <i>Egg management</i> (7.1 Egg collection, 7.2 Sorting and <u>grading, 7.3 Storage,7.4 Transportation)</u></p>		
<p>Good Agricultural Practices for Apiculture <i>Site Selection/Management</i> <i>Apiary Establishment</i> 1 Obtaining Bees 2 Bee Housing 3 Registration of Apiary 4 Transportation of Bees 5 Apiary Management 6 Hive Management 7 Pest and Disease Management 8 Apiary/Hive Sanitation 9 Pre-harvesting 10 Harvesting Extraction of Honey 11 Post-harvest 12 Storage <i>Waste Disposal</i> 1 Employee Welfare and Safety 2 Personal Hygiene 3 First Aid 4 Record Keeping/Traceability</p>	<p>Lecture, explanation, heuristic conversation, debate</p>	<p>1 lecture</p>

8.2. PRACTICAL WORK		
Number of hours – 14	Teaching methods	Notes
Case studies - GAP for cereals and legumes	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for fruits	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for vegetables	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for dairy farming	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for livestock (meat)	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for egg production farms	Case study, simulation of situations, methods of group work, individual	1 project
Case studies - GAP for apiculture	Case study, simulation of situations, methods of group work, individual	1 project



Compulsory bibliography:

1. GLOBAL G.A.P. (2018). Information available at https://www.globaleap.org/uk_en/
2. Mark C. Eisler, Michael R. F. Lee et al. (2014). Steps to sustainable livestock Nature 507: 32-34
3. Dr Dale Arey and Phil Brooke (2006). Animal Welfare Aspects of Good Agricultural Practice: pig production. Compassion in World Farming
4. Downey, W.D. (1996), The Challenge of Food and Agri Products Supply Chains, in: J.H. Trienekens and P.J.P. Zuurbier (eds.), *Proceedings of the 2nd International Conference on Chain Management in Agri- and Food*
5. ALEXANDRATOS, N. (1995) *World Agriculture: Towards 2010*. Rome: Food and Agriculture Organization and Chichester: Wiley.
6. Andreea Pușcaș, Vlad Mureșan, GOOD PRACTICES IN PRODUCING RAW AGRIFOOD PRODUCTS Workbook (2022), ISBN 978-606-020-451-0, Editura Mega, Cluj-Napoca.

Optional bibliography:

1. McMichael, P. (2001) *The impact of globalisation, free trade and technology on food and nutrition in the new millennium. Proceedings of the Nutrition Society, 60 pg. 215-220.*
2. Ellram, L., Cooper, M. (1993), Characteristics of supply chain management and the implications for purchasing and logistics strategy, *International Journal of Logistics Management, Vol. 4 No.2, pp.*
3. Estabrook, R., 2000, *Agriculture and food production. Food Insight Media Guide on Food Safety and Nutrition*. International Food Information Council (IFIC) Foundation, Washington D.C., USA
4. Martinez, S.W., Reed, A. (1996), *From Farmers to Consumers. Vertical Coordination in the Food Industry*, Washington, DC:USDA/ERS.
5. TROTH, J. R., 2001, *Policing the organic field*. *Food Science and Technology Today, 15(1):41-44.*

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 has a similar content compared with other European universities courses and takes into account the level of preparation of students.

The course is important / fundamental for the development of working skills as future specialists in the graduated field

The content of the discipline is in line with the demands of the specific national professional associations.

In order to identify ways of modernization and continuous improvement of the teaching and content of the courses, with the most current themes and practical problems, the teachers participate at the annual meeting of the Association of Food Industry Specialists in Romania, where they meet with the food industry specialists from the private environment and the teaching staff from other higher education institutions in the country. Meetings aim at identifying the needs and expectations of employers in the field and coordinating with other similar programs within other higher education institutions.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	General and particular aspects of good agricultural practices in the production of agri-food raw materials.	Continuous assessment	50%
10.5. Seminar/Laboratory	Good agricultural practices in producing raw agrifood products	Presentation and submission of individual GAP projects	50%
10.6. Minimum performance standards			
<p>Knowing the Principles of Good agricultural practices in producing raw agrifood products, as well as realizing an individual GAP project. The assessment of the knowledge and skills acquired by students is carried out in accordance with Article 144 (3) of the National Education Law, by full notes from 10 to 1, note 5 certifying the achievement of the minimum competences related to the discipline and passing the examination.</p> <p>Knowledge 50% of the information contained in the course.</p> <p>Knowledge 50% of the information provided at practical work / seminar.</p> <p>100% attendance at practical work / seminars is mandatory.</p> <p>Attendance at 50% courses is a condition for entering the exam.</p> <p>Final grade = 50% CA + 50% P</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).



UNIVERSITATEA DE ȘTIINȚE AGRICOLE ȘI MEDICINĂ VETERINARĂ CLUJ-NAPOCA





Calea Mănăstur 3-5, 400372, Cluj-Napoca

Tel: 0264-596.384, Fax: 0264-593.792

www.usamvcluj.ro

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 in on 06.09.2024	Course coordinator Vlad Mureșan, PhD, habil., Professor 	Laboratory work/seminar coordinator Vlad Mureșan, PhD, habil., Professor 
	Subject coordinator Vlad Mureșan, PhD, habil., Professor 	
Approved by the Department on 12.09.2024	Head of the Department Man, Simona PhD, Assoc. Prof. 	
Approved by the Faculty Council on 27.09.2024	Dean Elena Mudura, PhD Professor	

