UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
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No._____of _____ **USAMV–CN-0704020101**

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 processing agrifood products (GMP)							
2.2. Course coordinator				Lecturer PhD. Teodora Emilia Coldea				
2.3. Seminar/ laboratory/ project coordinator				Lecturer PhD. Teodora Emilia Coldea				
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]	DI

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time programme	3	out of which: 3.2. lecture	2	3.3. seminar/ laboratory/ project	1
3.4.Total number of hours in the curriculum	42	Out of which: 3.5.lecture	2	3.6.seminar/laboratory	14
Distribution of the time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					120
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					20
3.4.4.Tutorials					24
3.4.5.Examinations					4
3.4.6. Other activities					
3.7. Total hours of individual study	198				
3.8. Total hours per semester	240				
3.9. Number of credits[4]	8				

4. Prerequisites (is applicable)

4.1. curriculum-related	Quality Assurance in the Agrifood Chain
4.2. skills-related	Bachelor diploma or equivalent Certificate of language competence (english)

5.Conditions (if applicable)

5.1. for the lecture	Classroom equipped with videoprojector
5.2. for the seminar/ laboratory/ project	Seminar room equipped with projector; food technologies pilot plants Safety and secure rules for laboratory/ pilot plants must be respected. The access is not allowed without safety equipment.

6. Specific competences acquired

Professional competences	C1.1 The knowing the food quality and safety management systems, the national and international regulation referring to food quality and safety C1.2 Using the speciality knowledge to design food quality and safety management systems in different food industry organisations C1.3 Using the specific methodology for the assessment and control of hazards associated to agro-food production C1.4 Using the food quality and safety management knowledge to create GMP, GLP, HACCP programs C1.5 Conducting the speciality expertize and audits in the food quality and safety field C6.1 Understanding the principles referred to new food products design C6.2 Analysis and identification of the stages for the product and process design in food industry C6.3 The integrate using of classical and modern technologies for the obtaining of food products C6.4 The using of modern assessment methods of the products/process performances/characteristics C6.5 Elaboration of a product/process development project in a food industry unit.
Transversal competences	To demonstrate the integration capacity, communication and team working To demonstrate the focus on professional perfectioning by critical thinking skills To be involved in research activities concerning the good practices applied in the processing of agro-food products

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

7.1. Overall course objective	Good Manufacturing Practices course provides knowledge's and skills to ensure quality assurance, compliance and good manufacturing practices within the food industry.
7.2. Specific objectives	▪ Advanced knowledge of the regulations of the food industry ▪ Compliance of Good Manufacturing Practice in Food Industry ▪ Ability to development new product ▪ Ability to provide quality assurance of food chain

8. Content

8.1.COURSE **Number of hours – 28**	Methods of teaching	Observations
1. Quality mangement system and Good Manufacturing Practices. Definition, regulation, national and international Guide of Good Manufacturing Practices	Lectures	1 lecture (4 hours)
2. Good Manufacturing Practices: effective manufacturing opeations and effective food control	Lectures	1 lecture (4 hours)

3. [illegible]	[illegible]	[illegible]
4. The guide to management on product manufacture in terms of product and process control and handling under hygenic condition	Lectures	2 lecture (8 hours)
5. The guide to management on associated matters: training of personal,documentation and record keeping, supplier aproval, suitability of premises and equipment and site standards, waste management, laboratory management, traceability, preventiv and corectiv action and the managemnt of coustomer complaints and product recall.	Lectures	2 lecture (8 hours)

8.2.PRACTICAL WORK **Number of hours – 28**		
1. Aplication of general principles og GMP to some specific production categories: Heat-Preserved Food	Seminars, Case study.	1 seminar (2 hours)
2. Aplication of general principles og GMP to some specific production categories: Chilled Food	Seminars, Case study.	1 seminar (2 hours)
3. Aplication of general principles og GMP to some specific production categories: Frozen Food	Seminars, Case study.	1 seminar (2 hours)
4. Aplication of general principles og GMP to some specific production categories: Dry products and materials	Seminars, Case study.	1 seminar (2 hours)
5. Aplication of general principles og GMP to some specific production categories: Novell Food and Process	Seminars, Case study.	1 seminar (2 hours)
6. Aplication of general principles og GMP to some specific production categories: Food for catering	Seminars, Case study.	1 seminar (2 hours)
7. Aplication of general principles og GMP to some specific production categories: Fermented bevarages	Seminars, Case study.	1 seminar (2 hours)

Compulsory bibliography:

1. Food and Drinks- Good Manufacturing Practice: A guide to its Responsible Management, Sixth Edition. 2013.The Institute of Food Science and Technology Trust Fund. 2013. John Willey &Sons, Ltd.
2. GMP and HACCP. A handbook for small and medium scale food processing enterprises. Eresha Mendis, Niranjan Rajapakse, The Ceylon Chamber of Commerce, 2009.
3. Product Design and Development, Karl T. Ulrich, Steven D. Eppinger, McGraw-Hill, New York, 2012.
4. Ghid de bune practice pentru siguranta alimentelor. Managementul siguranţei alimentelor. Industria de panificaţie. Editura Uranus. 2005
5. Ghid de bune practice pentru siguranta alimentelor. Managementul siguranţei alimentelor. Produse de patiserie şi cofetărie. Editura Uranus. 2006
6. Stanciuc, N., G. Rapeanu, 2009, Managementul Sigurantei alimentelor, Ed. Academica, Galati;
7. Banu, C., N. Preda, S.S. Vasu, 1982, Produsele alimentare si inocuitatea lor, ed. Tehnica Bucuresti.
8. Codex Alimentarius Standards (http://www.codexalimentarius.org/standards/en/)
9. European Union: European Food Safety Authority (http://www.efsa.europa.eu/)
10. Food and agriculture Organization (http://www.fao.org/home/en/)
11. Institute of Food Science and Technology (http://www.ifst.org)

Optional bibliography:

1. International Commision on Microbiological specification for Food (ICMSF) ((http://www.icmsf.org/idex.html
2. Food standard Agency ((http://www.food.gov.uk)
3. British Standard Institution ((http://www.bsigroup.co.uk)
4. *** ISO 9001:2008 Quality management systems – Requirements
5. *** ISO 22000:2005 Food safety management systems - Requirements for any organization in the food chain
6. BRC Global Standard for Food Safety:Issue 6.The British Retail Consortium.TSO (The Stationary Office), July, 2011.
7. *** Legea 150: 2004 privind siguranta alimentara
8. *** Legea nr. 245 din 09/06/2004 - privind securitatea generala a produselor;
9. *** Ordin nr. 1.956/1995 privind introducerea şi aplicarea sistemului HACCP (Hazard Analysis Critical Control Point) în activitatea de supraveghere a condiţiilor de igienă din sectorul alimentar;
10. *** Ordin nr. 863/1995 pentru aprobarea Normelor de igienă privind producţia, prelucrarea, depozitarea, păstrarea, transportul şi desfacerea alimentelor, abrogat prin ordiunul 976/1998;
11. *** Ordin nr. 611/1995 pentru aprobarea Normelor de igienă privind alimentele şi protecţia sanitară a acestora;
12. *** Ordin al ministrului sănătăţii nr. 975/1998 privind aprobarea Normelor igienico-sanitare pentru alimente;
13. *** Ordin al ministrului sănătăţii nr. 976/1998 pentru aprobarea Normelor de igienă privind producţia, prelucrarea, depozitarea, păstrarea, transportul şi desfacerea alimentelor;
14. *** Hotărârea Guvernului nr. 1198/2002 pentru aprobarea Normelor de igienă a produselor alimentare
15. *** SR EN ISO/CEI 17025/2005, cerinte generale pentru competenta laboratoarelor d eincercari si etalonari
16. Luning P.A., W.J.Marcelis, W.M.F.Jongen, Food Quality management, a techno-managerial approach, Wageningen Pres, 2002

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

Course curriculum meets the requirements for a qualified preparation by the high degree of applicability (eg Development of good practice guides for different areas of the 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. Course	Students have to demonstrate the understanding of how good manufacturing practice operates and how the food industry are regulated	Test	Admitted or rejected
10.5. Seminar/ Laboratory	Drawing up and presentation of a case study of GMP for a specific food or process	Report	100%
10.6. Minimum performance standards			
10.6.Minimal standard of performance **Course: Minimal standards: Admitted ; Seminars: Minimal standard: mark 5**			

[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

Filled in on
08.09.2021

Course coordinator
Lecturer PhD. Teodora Emilia Coldea

Laboratory work/seminar coordinator
Lecturer PhD. Teodora Emilia Coldea

Subject coordinator
Prof. PhD. Elena Mudura

Approved by the
Department on
22.09.2021

Head of the Department
Prof. PhD. Sevastiţa Muste

Approved by the Faculty
Council on
28.09.2021

Dean
Prof. PhD. Elena Mudura