UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
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No._____of _____ **USAMV Form 0703040105**

SUBJECT OUTLINE

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. Field of study	Food Engineering
1.5.Education level	Bachelor
1.6.Specialization/ Study programme	Food Engineering
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	**Technologies in meat industry 2**							
2.2. Course coordinator	**Assoc. Prof. PhD. Dorin Ţibulcă**							
2.3. Seminar/ laboratory/ project coordinator	**Assoc. Prof. PhD. Dan Sălăgean**							
2.4. Year of study	IV	2.5. Semester	VII	2.6. Type of evaluation	continuous	2.7. Discipline status	Content[2]	AP
							Compulsoriness[3]	CD

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 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					10
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					20
3.4.4. Tutorial					9
3.4.5. Examinations					10
3.4.6. Other activities					0
3.7. Total hours of individual study	69				
3.8. Total hours per semester	125				
3.9. Number of credits[4]	5				

4. Prerequisites (if applicable)

4.1. curriculum-related	Food biochemistry, Unit operation in Food Industry, Food Industry equipment, Animal raw materials, Transfer phenomena, Food microbiology, Agri-food hygiene
4.2. skills-related	General knowledge of food engineering, communication in Romanian, digital skills

5. Conditions (if applicable)

5.1. for the lecture	The course is interactive, students can ask questions about the content of the presentation. Academic discipline requires compliance with the start and end of the course. Classroom equipped with PC unit, video projector, internet connection, projection screen, blackboard. No other activities are tolerated during the lecture, mobile phones are switched off. Attendance required at the course: minimum 50%. In the case of the didactic activity carried out online, the teaching methods will be adapted
5.2. for the seminar/ laboratory/ project	For practical work, it is mandatory to consult the practical guide. Each student will participate in the practical work. Academic discipline is required throughout the work. The outfit must be appropriate (white robe, cap, disposable cover dispensers,

	gloves). Pilot station equipped with PC unit, video projector, internet connection, projection screen, blackboard, equipment, machinery, utensils, raw materials, auxiliaries, materials. Presence required: 100% (absences must be recovered). In the case of the didactic activity carried out online, the teaching methods will be adapted

6. Specific acquired competences

Professional competences	C3.1. Description and use of basic concepts, theories and methods regarding technologies in the meat industry C3.2. Explanation and interpretation of the principles and methods used in technological processes in the meat industry C2.3. Application of basic engineering principles and methods for solving technological problems in the meat industry C35. Development of projects related to technologies and products specific to the meat and meat products industry
Transversal competences	CT1: Applying strategies of perseverance, rigor, efficiency and responsibility at work, punctuality and taking responsibility for the results of personal activity, creativity, common sense, analytical and critical thinking, problem solving, etc., based on the principles, norms and values of the code professional ethics in food.

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

7.1. Overall course objective	Development of general practical skills Acquiring knowledge on the processing of meat obtained by slaughter to common and raw-dried meat products
7.2. Specific objectives	Acquisition of knowledge on meat preservation by salting and smoking Acquiring knowledge on the processing of fatty raw materials Acquiring knowledge of common meat products and raw-dried meat products technology Understanding the role and importance of meat processing in relation to other disciplines and correlating the knowledge from the disciplines that visit the general specialized training.

8. Content

8.1. LECTURE	**Teaching methods**	**Notes**
Number of hours – 28		**1 lecture = 2 hours**
Meat preservation by salting and smoking	Lecture	3 lectures
Processing of fatty raw materials		1 lecture
Manufacturing technology of the common meat products		7 lectures
Classification of the meat products		
Raw materials, auxiliary materials, materials		
General technology of the manufacturing of the meat products in casings (salamies, sausages)		
Manufacturing technology of the fresh meat products, semismoked salamies and sausages		
Manufacturing technology of the pasteurized products		
Manufacturing technology of the smoked products		
Manufacturing technology of the specialties products		
Manufacturing technology of the raw-dried meat products		2 lectures
Classification of the raw-dried meat products		
Raw materials, auxiliary materials		
Manufacturing technology of raw meat products - smoked - dried - matured (Sibiu salami)		
Manufacturing technology of raw and dried meat products (ghiuden and babic)		
Defects of meat preparations		1 lecture

8.2. PRACTICAL WORK **Number of hours – 14**		1 lab work (2 hours / work)
1. Preservation of meat by salting and smoking	Salting movie, practical applications, technological calculations	1 lab work
2. Fresh products manufacturing technology	Manufacturing movie; practical applications, technological calculations	1 lab work
3. Manufacturing technology of semi-smoked salamis and sausages	Manufacturing movie; practical applications , technological calculations	1 lab work
4. Manufacture of the pasteurized products	Manufacturing movie; practical applications, technological calculations	1 lab work
5. Smoked products manufacturing technology	Manufacturing movie; practical applications, technological calculations	1 lab work
6. Specialty products manufacturing technology	Manufacturing movie; practical applications, technological calculations	1 lab work
7. Verification of knowledge (ongoing checks)	Template tests /oral	1 lab work

8.3. PROJECT **Number of hours - 14**	Exercise, problem solving, heuristic conversation, explanation. Realization of the project	14 hours

Compulsory bibliography:

1. *Ţibulcă, D. şi Sălăgean, D., 2000, Tehnologia cărnii şi a produselor din carne, vol I şi II, Ed. Risoprint, Cluj-Napoca.*
2. *Sălăgean, D. şi Ţibulcă, D., 2009, Tehnologia produselor din carne, Ed. Risoprint, Cluj-Napoca*
3. *Ţibulcă, D. şi Sălăgean, D., 2010, Procesarea cărnii, vol. I, Ed. Risoprint, Cluj-Napoca*
4. *Sălăgean, D. şi Ţibulcă, D., 2010, Tehnologia cărnii şi a produselor din carne – îndrumător de lucrări practice, Ed. Risoprint*
5. *Ţibulcă, D. şi Sălăgean, D., 2016, Procesarea cărnii, vol. 2, Ed. Risoprint, Cluj-Napoca*

Optional bibliography:

1. *Banu, C. ş.a., 1997, Procesarea industrială a cărnii, Ed. Tehnică, Bucureşti.*
2. *Banu, C. ş.a., 2003, Procesarea industrială a cărnii, Ed. Tehnică, Bucureşti.*
3. *Sălăgean, D. şi Ţibulcă, D., 2004, Tehnologia de fabricaţie a preparatelor din carne - îndrumător de lucrări practice, Ed. Bedin, Bistriţa*

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 content of the discipline is in accordance with the requests of specific national professional associations

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Course	Logical and correct application of the acquired notions Assimilation of knowledge	Continuous assessment	50%
10.5. Seminar/Laboratory/Project	Application of knowledge on technology for the production of dried dairy products and cheeses	Colloquy Project presentation	25% 25%
10.6. Minimum performance standards			
Understanding, describing and interpreting the basics in the technology of obtaining meat products; Ability to apply the knowledge gained by solving at least 50% of the theoretical topics.			

[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 hours of study (teaching activities and individual study).
[5] / * Disciplines: AK- Advanced knowledge, CT- Complementary Training, S- Synthesis

Filled in on
09.09.2021

Course coordinator
Assoc. Prof. PhD. Dorin Ţibulcă

Laboratory work/seminar coordinator
Assoc. Prof. PhD. Dan Sălăgean

Subject coordinator
Assoc. Prof. PhD. Dorin Ţibulcă

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