



No. _____ of _____

USAMV Form 0703040103

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	Manufacturing technology of the semi-preserved and preserved meat products							
2.2. Course coordinator	Associate Professor dr. eng. Sălăgean Claudiu-Dan							
2.3. Seminar/ laboratory/ project coordinator	Lecturer dr. eng. Melinda Fogarasi							
2.4. Year of study	IV	2.5. Semester	VII	2.6. Type of evaluation	Summative	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 time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					25
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					15
3.4.4. Tutorial					4
3.4.5. Examinations					10
3.4.6. Other activities					0
3.7. Total hours of individual study	64				
3.8. Total hours per semester	120				
3.9. Number of credits ⁴	4				

4. Prerequisites (if applicable)

4.1. curriculum-related	Unit operations in food industry, Food industry equipment, Cold engineering, General and special microbiology, Food biotechnology, Additives and ingredients in Food industry, Meat processing, Hygiene of Food industry units, Plant and animal materials
4.2. skills-related	The student should have knowledge about chemistry and food biochemistry, food technology and quality control of plant and animal origin

5. Conditions (if applicable)

5.1. for the lecture	The course is interactive, students can ask questions regarding the content of the exposure. Academic discipline enforce time start and end of the course. We do not allow any other activities during the lecture, mobile phones are closed.
5.2. for the seminar/ laboratory/ project	Practical work supervisor is compulsory at laboratory, every student will develop an individual activity based on material and laboratory materials provided, based on the procedure described in the practical work advisor. Academic discipline is imposed for the duration of works.





Manufacture of canned baby products (<i>Baby food, Junior food, Senior food</i>)	Technological calculations /practical applications	1 practical work
Manufacture of canned fish products in tomato sauce and oil	Technological calculations /practical applications	1 practical work
Verification of the knowledge (throughout the semester)	Technological calculations /practical applications	1 practical work
	Template tests /oral	
Compulsory bibliography: <ol style="list-style-type: none"> Banu, C. ș. a., 1997, 2003, Procesarea industrială a cărnii, Ed. Tehnică, București Ionescu, Aurelia, 1995, Tehnici și procedee de conservare a peștelui, Ed. Hypatia, Galați Țibulcă, D. și Sălăgean, D., 2001, Tehnologia semiconservelor și conservelor din carne și pește, Ed. George Coșbuc, Bistrița Sălăgean, C. D., Țibulcă, D., 2009, Tehnologia semiconservelor și conservelor din carne și pește, Editura Risoprint, Cluj-Napoca 		
Optional bibliography: <ol style="list-style-type: none"> Banu, C., 1998 și 1999, Manualul inginerului de industrie alimentară, vol.I, II, Editura Tehnică, București Bărzoai, D., și Apostu, S., 2002, Microbiologia produselor alimentare, Ed. Risoprint, Cluj-Napoca Bogatu, D. ș. a., 1980, Piscicultură, E.D.P., București Georgescu, Gh., Banu, C., ș.a., 2000, Tratat de producerea, procesarea și valorificarea cărnii, Editura Ceres, București Laslo, C. și colab., 2008, Controlul calității și igiena produselor alimentare de origine animală, Editura Risoprint, Cluj-Napoca Sălăgean, C. D., 2011, Tehnologia și controlul calității pe fluxul tehnologic de fabricație a produselor din carne, Editura Risoprint, Cluj-Napoca ***, 1997, Institutul Român de Standardizare, Culegere de standarde române comentate (conserve de carne), 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 of modernization and continuous improvement of teaching and course content with the current issues and practical problems teachers participate in various workshops (with guests from the economic environment), trade exhibition for agriculture and food industry (eg . Agraria) food festivals (eg "Food Festival" - exhibition of products made by students in their final years in order to support project graduation) and meetings of professional associations (eg, Association of Food Industry specialists Romania - ASIAR) where they meet teachers from different universities, engineers and managers in the economic environment being debated current issues and future of food production in Romania and Europe.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Knowledge/assimilation of the manufacturing technologies of the <i>semi-preserved and preserved meat products</i>	Oral exam	60%
10.5. Seminar/Laboratory	Learning technological schemes / recipes and technological process of the manufacturing of the semipreserved/canned meat products Calculation of the quantities of the raw and auxiliary materials for the production of various types of semi and canned meat products Calculation of the material balance on the flow of manufacturing of the semipreserved/canned meat products Knowledge and application of specific salting methods and calculation of the substances / salting mixtures specific for different raw materials used in the manufacturing	4 continuous assessments	40%



	<p>process of the semipreserved/canned meat products</p> <p>Ability to elaborate the manufacturing flow of different types /kinds of semipreserved/ canned meat products (flowchart, recipe, manufacturing technological process)</p> <p>Monitoring capacity of the manufacturing technological process of the semipreserved/tinned meat products (technological parameters on the flow)</p> <p>Ability to check the quality of the finished product (quality parameters)</p> <p>Knowing the defects of the semipreserved/canned meat products</p>		
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10.6. Minimum performance standards

Mastery of scientific information transmitted through lectures and practical papers at an acceptable level.
Preparation of a technological flow for the manufacture of some types / assortments of semi-canned and canned meat
Calculation of the quantities of raw and auxiliary materials necessary for the manufacture of various varieties of semi-canned and canned meat
Obtaining the pass mark for the ongoing checks is a condition of passability.
The final grade is the weighted average of the exam and the colloquium on practical work and must be equal to or greater than 5 (five)

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
Associate Professor dr. eng. Dan Sălăgean

Laboratory work/seminar coordinator
Lecturer dr. eng. Melinda Fogarasi

Subject coordinator
Associate Professor dr. eng. Dan Sălăgean

Approved by the
Department on
22.09.2021

Head of the Department
Professor dr. Sevastița Muste

Approved by the Faculty
Council on
28.09.2021

Dean
Professor dr. Elena Mudura