UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
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No._____of _____ **USAMV Form 0702020103**

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 Control and Expertise
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	Animal raw materials 1							
2.2. Course coordinator				Lecturer dr. Melinda Fogarasi				
2.3. Seminar/ laboratory/ project coordinator				Asist. Dr. Delia Michiu				
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	28	3.6. seminar / laboratory	14
Distribution of time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					30
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					10
3.4.4. Tutorial					2
3.4.5. Examinations					6
3.4.6. Other activities					0
3.7. Total hours of individual study	58				
3.8. Total hours per semester	100				
3.9. Number of credits[4]	4				

4. Prerequisites (if applicable)

4.1. curriculum-related	Food Biochemistry Food Chemistry
4.2. skills-related	-

5. Conditions (if applicable)

5.1. for the lecture	Room equipped with projector
5.2. for the seminar/ laboratory/ project	- Analysis Laboratory, Ecomilc, Soxhlet, Parnas Wagner devices; laboratory glassware, biological products, meat, milk, eggs, anatomical parts, reagents - Everyone must respect all security regulations; (eg. wearing the protective coat)

6. Specific acquired competences

Professional competences	C1.1. Recognition, description and correct use of terms specific to raw materials of animal origin C1.3. Application of basic principles and methods in food science to solve engineering and technological problems, including those related to food safety C1.4. Evaluation of the qualitative and quantitative characteristics of the raw materials of animal origin in order to optimize the technological flow and ensure the food safety of the consumer; Knowledge and identification of the component parts of the raw materials of animal origin subject to capitalization in order to obtain food products; Knowledge of the physico-chemical parameters pursued in the quality control of raw materials of animal origin; Application of basic methods in the analysis of the quality of raw materials of animal origin (training in investigations on the impact of quality parameters of raw materials of animal origin on the quality of the finished product; establishing the influence of the chemical composition of the raw material on the finished product) during the technological flow)
Transversal competences	CT2. Applying interrelationship techniques within a team; Developing the ability to integrate, communicate and work in a team; Developing the team coordination spirit; Development of organizational capacity in carrying out activities

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

7.1. Overall course objective	Acquisition by students of knowledge on the biological bases of animal production, influencing factors and their quantitative and qualitative control
7.2. Specific objectives	Acquiring the theoretical and practical notions of the discipline Training in the handling of laboratory utensils and equipment

	Knowledge of the characteristics of animal productions, their influencing factors and the criteria for assessing the quality of animal raw materials Professional development by engaging in investigations on the impact of quality parameters on the quality of the finished product Involvement of students in scientific activities and innovative research Developing the ability to integrate, communicate and work in a team Developing the team's coordinating spirit Development of organizational capacity in carrying out activities

8. Content

8.1. LECTURE **Number of hours – 28**	Teaching methods	Notes
1. Introductory notions. The purpose, importance and content of the course	Lecture, heuristic conversation, explanation, video presentations	0.5 lecture
2. Systematic taxonomy	Lecture, heuristic conversation, explanation, video presentations	2,5 lecture
3. Animals meat supplyiers	Lecture, heuristic conversation, explanation, video presentations	5 lecture
4. **Poultry and poultry production (meat, eggs)**	Lecture, heuristic conversation, explanation, video presentations	3 lecture
5. Milk supplying animals and milk production	Lecture, heuristic conversation, explanation, video presentations	3 lecture

8.2. PRACTICAL WORK **Number of hours – 14**	Theoretical presentation of practical works	1 lab work (1 hour / work)
1. Security assurance. PSI. Animal approach and contention	Presentations	1 lab work
2. Animal characters and characteristics. The bone base of the main body regions	Presentations, essays, bibliographical study	2 lab works
3. Characterization and recognition of the main breeds of cattle (for meat, milk and mixed)	Presentations, essays, bibliographical study	2 lab works
4. Characterization and recognition of the main breeds of sheep (for meat, milk, wool and mixed)	Presentations, essays, bibliographical study	2 lab works
5. Characterization and recognition of the main breeds of pigs (for meat, fat and mixed)	Presentations, essays, bibliographical study	2 lab works
6. Characterization and recognition of the main breeds of birds (meat and eggs)	Presentations, essays, bibliographical study	2 lab works
7. Meat and fat production	Presentations, essays, bibliographical study	1 lab work
8. Egg and milk production	Presentations, essays, bibliographical study	1 lab work
9. Appreciation of animal quality	Presentations, essays, bibliographical study	1 lab work

Compulsory bibliography:

1. Marcu N. ş.a., 2008, Materii prime animale, Editura RISOPRINT, Cluj-Napoca
2. Sălăgean, C.D., Fogarasi Melinda, 2018, *Materii prime animale* - vol. 1 (manual didactic), Editura MEGA, Cluj-Napoca
3. Ştefţca Gheorghe, 2010, Tehnologii de obtinere a materiilor prime de origine animala, Editura Risoprint, Cluj-Napoca
4. Ştefţca Gheorghe, 2013, Materii prime de origine animala, Tehnologii de obtinere, Editia a 2-a, Editura Risoprint, Cluj-Napoca

Optional bibliography:

1. Banu C. si col. 1999, Manualul inginerului de industrie alimentară, Vol. II Editura Tehnica, Bucuresti
2. Banu, C. ş.a., 2003, Procesarea industrială a cărnii, Ed. Tehnică, Bucureşti

3. Laslo C., Gh. Şteţca, 2008, Controlul calitativ şi igiena produselor alimentare de origine animală, Editura Risoprint, Cluj-Napoca
4. Sălăgean, C. D., 2011, *Tehnologia şi controlul calităţii pe fluxul tehnologic de fabricaţie a produselor din carne*, Editura RISOPRINT, Cluj-Napoca
5. Sarbulescu V., Stanescu V., Vacaru Opris I., Cornelia Vintila, 1983, Tehnologia si valorificarea produselor animale, E.D.P. Bucuresti
6. Ştefca Gheorghe, R. Morar, I. Pasca, 2010, Zootehnia generala, nutritia animala si sisteme de productii animaliere, Editura Risoprint, Cluj-Napoca;
7. Ţibulcă, D., Sălăgean, D., 2000, *Tehnologia cărnii şi a produselor din carne*, Volumul I, II, Editura RISOPRINT, Cluj – Napoc a
8. Ţibulcă, D., Sălăgean, D., 2010, Procesarea cărnii, vol. I, Editura RISOPRINT, Cluj-Napoca

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

It meets the requirements for a qualified training by the high degree of applicability (eg. laboratory work) and topical content of the discipline.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	The biological basis knowledge of animal production, factors which influence and control their quantitative and qualitative production	Continuous assessment (written exam, multiple choice test)	70%
10.5. Seminar/Laboratory	Knowledge of the examination method and skeletal structure as the bone base of the main body regions, the way of assessing the exterior and productive value of animals and the constitutional and morpho-productive types, assessing the quality of animals, recognizing the main breeds of cattle (for meat, milk and mixed), sheep (for meat, milk, wool and mixed), pigs (for meat, fat and mixed) and poultry (meat and eggs)	Colloquium	30%
10.6. Minimum performance standards			
Recognition of the main breeds of cattle, sheep, pigs and birds Knowing how to appreciate the quality and productive value of animals 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
06.09.2021

Course coordinator
Lecturer dr. Melinda Fogarasi

Laboratory work/seminar coordinator
Asist. Dr. Delia Michiu

Subject coordinator
Lecturer dr. Melinda Fogarasi

Approved by the
Department on
22.09.2021

Head of the Department
Prof. dr. Sevastiţa Muste

Approved by the Faculty
Council on
28.09.2021

Dean
Prof. dr. Elena Mudura