



No. _____ of _____

USAMV form 0109010105 (discipline code)

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	Agriculture
1.3. Department	Plant culture
1.4. Field of study	Agronomic
1.5. Cycle of study¹	Master
1.6. Specialization/ Study programme	Management of Natural and Ago-turistic Resources in the Mountain area
1.7. Form of education	IF

2. Information on the discipline

2.1. Discipline name		Systems of use of mountain grasslands						
2.2. Course coordinator			Professor Ioan Rotar					
2.3. Seminar/ laboratory/ project coordinator			Professor Ioan Rotar					
2.4. Year of study	I	2.5. Semester	2	2.6. Evaluation type	sumative	2.7. Discipline status	Content ²	DA
							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	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 books, textbooks, bibliography and notes					30
3.4.2. Additional documentation in the library, electronic platforms and field experiences					45
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					25
3.4.4. Tutorials					20
3.4.5. Examinations					15
3.4.6. Other activities					
3.7. Total hours of individual study	135				
3.8. Total hours per semester	163				
3.9. Number of credits ⁴	6				

4. Prerequisites (if applicable)

4.1. curriculum-related	Botany, Agro-technical, Agroecology, Sociology
4.2. skills-related	The student must be knowledgeable in the field of pratology and know the species of plants representative for the grass culture

5. Conditions (if applicable)

5.1. for the course	The course is interactive, students can ask questions about the content of the exhibition. The university discipline requires the observance of the start and end time of the course.
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	No other activities are tolerated during the lecture, mobile phones should be closed
5.2. for the seminar/ laboratory/ project	In the practical works it is compulsory to consult the practical guide, each student will carry out an individual activity with the laboratory materials made available and described in the practical works guide. The academic discipline is required throughout the duration of the works

Note: In the case of online teaching, the teaching methods are adapted to the online conditions and platforms used.

6. Cumulated specific competences

Professional competences	<p>To know the agronomic language specific to the pratotehnic field.</p> <p>To know the extensive systems of grassland use.</p> <p>To know the system of use of grassland through pasture and be able to make a comprehensive analysis of the relationship between the species of animal and pasture.</p> <p>To know the system of use of meadows through mowing and to learn what are the grass preservation systems.</p> <p>To acquire the theoretical notions regarding the systems of appreciation of feed quality.</p> <p>To acquire theoretical notions regarding genetically modified fodder plants.</p> <p>To know the functioning mechanism of the ecological systems in the feed production.</p>
Transversal competences	<p>Demonstrate concern regarding professional development by engaging in investigations on technological impacts on the structure and dynamics of pratecosystems</p> <p>To be able to apply the theoretical notions learned in the culture, within the practical activities carried out in the field of experiences of the discipline.</p> <p>To acquire dexterity for teamwork and interdisciplinary collaboration.</p> <p>To be able to determine the quality parameters of the forages and to offer advice based on the theoretical notions learned.</p>

7. Discipline objectives (based on the cumulated specific competences)

7.1. General objective	The knowledge transmitted comprises a wide spectrum of concrete aspects of natural grassland management, with negative aspects that lead to the degradation of the vegetation, the deterioration of the quality of the forages or systems of sustainable use with a favorable effect on the vegetation and the quality of the forages.
7.2. Specific objectives	<p>To know the extensive systems of grassland use and to be able to define the relative equilibrium state of a pratecosystem.</p> <p>Have the ability to analyze the relationship between animal species and pasture.</p> <p>To know the grass preservation systems.</p> <p>To know the systems of appreciation of the quality of the forages and to be able to make determinations / assessments in this regard.</p> <p>To know the basics regarding ecological systems in feed production..</p>

8. Content

8.1. COURSE Number of hours -28	Teaching methods	Observation
	Lecture	1 lecture = 2 hours
Extensive grassland use systems, relative balance status of pratecosystems.	Lecture	2 lectures
The use of grasslands through grazing, the relationship between animal species and pasture.	Lecture	3 lectures
Use of meadows through mowing. Grass storage systems.	Lecture	3 lectures
Feed quality assessment systems.	Lecture	2 lectures
Genetically modified fodder plants.	Lecture	2 lectures

Ecological systems in feed production.	Lecture	1 lecture
Verification of knowledge	Lecture Check written	1 lecture

8.2. PRACTICAL WORKS Number of hours – 28	Teaching methods	Observation
		Theoretical presentation of practical works
Case study: Grasslands in a state of relative equilibrium.	Heuristic conversation debate; I work in a group	2 Laboratory work
Project for the use of grassland through grazing with cattle.	Heuristic conversation debate; I work in a group	2 Laboratory work
Project for the use of grassland by grazing with sheep.	Heuristic conversation debate; I work in a group	2 Laboratory work
Analysis of fan quality from natural and sown meadows	Practical determinations	2 Laboratory work
Study in the feed store of the quality of the fan, silo and rootstock	Study of plants	2 Laboratory work
Study of the quality of herbs from the representative grasslands of Transylvania	Theoretical basis	2 Laboratory work
The study of genetically modified feed: scenarios with negative and positive aspects of the system.	Heuristic conversation debate; I work in a group	2 Laboratory work
<i>Compulsory bibliography:</i> 1. VIEHMANN I. I. (2001), <i>Ecologie, Ed. Risoprint</i> 2. PUJA I., SORAN V., ROTAR I., (1998), <i>Agroecologie, ecologism, ecologizare, Ed. Genesis</i> 3. PUJA I., SORAN V., CARLIER L., ROTAR I., VLAHOVA M., (2001), <i>Agroecologie si ecodesvoltare, Ed., AcademicPress</i> 4. ROTAR I., CARLIER L., (2010), <i>Cultura pajistilor, Ed. RisoPrint</i>		
<i>Optional bibliography:</i> 1. Carlier, L., I. Puia, I. Rotar, <i>For a better grass production, Ed. Risoprint,</i> 2. <i>Revista Fourrages 2000-2013</i> 3. <i>Romanian Journal of Grassland and Forage Crops</i>		

9. Corroborating the discipline content with the expectations of the epistemic community representatives, of the professional associations and of the relevant employers in the corresponding field

In order to identify ways of modernization and continuous improvement of the teaching and the content of the courses, with the most current topics and practical problems, the teachers participate in the annual meeting of the Romanian Society of Grasslands where they meet with the farmers, being debated current issues and perspectives. forage production in Romania and Europe

10. Evaluation

Type of activity	10.1. Evaluation criteria	10.2. Evaluation type	10.3. Percentage of the final grade
10.4. Course	Knowledge of extensive grassland use systems. Knowledge of feed quality assessment systems. Ecological systems in feed production. Knowledge of grazing systems with cattle, sheep, etc.	summative(E)	70%
10.5.	The ability to appreciate the quality of	1 written check is	30%

Seminar/Laboratory	forage from natural and sown grassland. Preparation of a specific forage balance by each master. Evaluation of pasture systems specific to different areas of Romania.	provided (case study).	
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10.6. Minimum performance standards

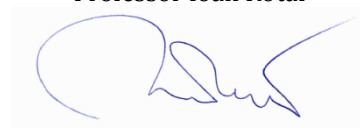
Mastery of scientific information transmitted through lectures and practical papers at an acceptable level. Obtaining the passing grade for the ongoing checks is a condition of promotability.

- 1 Cycle of studies - choose one of the three options: Bachelor/Master/Ph.D.
- 2 according to the educational plan
- 3 Discipline status (compulsoriness) - choose one of the options – **DI** (compulsory discipline) **DO** (optional discipline) **DFac** (facultative discipline).
- 4 One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Filled in on
11.09.2020

Course coordinator
Professor Ioan Rotar

Laboratory work/seminar coordinator
Professor Ioan Rotar

Approved by the
department on
14.09.2020

Head of the Department
Sef. lucr. dr. Cristina Moldovan

