



No. _____ of _____

USAMV form 0102030107 (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	Agronomy
1.5. Cycle of study¹	Bachelor
1.6. Specialization/ Study programme	Mountain agriculture
1.7. Form of education	Full time

2. Information on the discipline

2.1. Discipline name		Pratology and pratotechnics						
2.2. Course coordinator		Lect. Florin Pacurar PhD						
2.3. Seminar/ laboratory/ project coordinator		Lect. Florin Pacurar PhD						
2.4. Year of study	III	2.5. Semester	II	2.6. Evaluation type	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	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 the time allotted					hours
3.4.1. Study based on books, textbooks, bibliography and notes					20
3.4.2. Additional documentation in the library, electronic platforms and field experiences					20
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					10
3.4.4. Tutorials					5
3.4.5. Examinations					10
3.4.6. Other activities					
3.7. Total hours of individual study	65				
3.8. Total hours per semester	140				
3.9. Number of credits⁴	5				

4. Prerequisites (if applicable)

4.1. curriculum-related	Botany, Pedology, Agrochemistry
4.2. skills-related	Student must have knowledge about particular biological aspects of forage crop species, the soil and climate requirements of plants and the systematics of the plants.

5. Conditions (if applicable)

5.1. for the course	The course is interactive, students may ask questions about the lecture content. University discipline requires strict observance of course start and end times. No other activities are tolerated during the lecture. Personal devices must be turned off.
5.2. for the seminar/ laboratory/	Consulting the handbook is required during seminars/labs, as each student will

project	work individually with available materials which are described in the handbook. Academic discipline is required for the entire duration of lab hours.
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6. Cumulated specific competences

Professional competences	<p>Being knowledgeable of the main parameters which are of correct fertilizer management.</p> <p>Being knowledgeable of the best water management practices for grasslands.</p> <p>Being knowledgeable of grassland management.</p> <p>Being knowledgeable of the quality parameters of grasslands.</p> <p>Being knowledgeable of silaging.</p>
Transversal competences	<p>Having the capacity of preparing and using fertilizers for forage crops on a farm.</p> <p>Having the capacity of planning research activities associated with the creation of sown grasslands.</p> <p>Being knowledgeable of aspects surrounding silaging of forage crops.</p> <p>Can demonstrate professional development by engaging in research on the impact of farming technologies on the structure and dynamics of grassland ecosystems.</p> <p>Can participate in research activities in the domain of the discipline.</p>

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

7.1. General objective	Knowing the ways of using, managing and extracting value from natural and seminatural grasslands.
7.2. Specific objectives	<p>Knowing the main parameters for correct fertilizer management.</p> <p>Knowing water management of grasslands.</p> <p>Knowing all the stages of creating a sown grassland.</p> <p>Knowing the types of grassland use.</p> <p>Knowing the parameters which match the nutritive value of forage crops and knowing the forage crop energy measuring systems</p>

8. Content

8.1. COURSE Number of hours - 28	Teaching methods	Observation
The maintenance and improvement of grasslands. Soil works. Aero-hydric regime improvements.	Lecture	1 lecture = 2 hours
Trophic regime improvements. Fertilizer and amendment application.	Lecture	2 lectures = 4 hours
Hydric regime amelioration in grasslands	Lecture	1 lecture = 2 hours
Grass cover regeneration. Self-sowing and overseeding. Replacing degraded natural grasslands with sown grasslands.	Lecture	2 lectures = 4 hours
Grassland use by mowing	Lecture	2 lecture = 4 hours
Grassland use by grazing	Lecture	3 lecture = 2 hours
Forage quality	Lecture	2 lectures = 4 hours
Siloining forage crops	Lecture	2 lectures = 4 hours
Evaluation		

8.2. PRACTICAL WORKS Number of hours - 28	Teaching methods	Observation
Establishing the context for creating a pastoral management plan.	Practical works	1 lab work (2 hours/work)

Producing a technological plan for the maintenance of the grassland in the proposed plan.	Practical works	1 lab work (2 hours/work)
Formulating the plant mix	Practical works	1 lab work (2 hours/work)
Producing a technological plan for the use of the meadow in the proposed plan.	Practical works	1 lab work (2 hours/work)
Producing a technological plan for the use of the pasture in the proposed plan.	Practical works	1 lab work (2 hours/work)
The grassland management schedule for the proposed plan	Practical works	1 lab work (2 hours/work)
Grazing scheduling in the proposed plan	Practical works	1 lab work (2 hours/work)
Grassland evaluation. Determining the pastoral value in the proposed plan.	Practical works	1 lab work (2 hours/work)
Determining the quality of the stored forage within the proposed plan	Practical works	1 lab work (2 hours/work)
Presenting the plan/project	Oral/practical	1 lab work (2 hours/work)
Identifying plant species by their vegetative organs	Practical works/Seminar	2 lab work (4 hours/work)
Methods of studying grass cover: geobotanical and gravimetric methods; planimetric methods. The double-meter method.	Practical works/Seminar	2 lab work (4 hours/work)
Examination	Oral presentation	
<p>Compulsory bibliography:</p> <ol style="list-style-type: none"> 1. Rotar I., (1996) – <i>Notițe de curs</i> 2. ROTAR I., CARLIER L., (2010), <i>Cultura pajiștilor</i>, Ed. RisoPrint 3. PUJA I., et. Al. (1991), <i>Cultura pajiștilor și a plantelor furajere</i>, Ed. Did. Si Ped. București 4. ROTAR I., VIDICAN R., SIMA N., (2005), <i>Cultura pajiștilor și a plantelor furajere – ghid practic</i>, Ed. RisoPrint 5. VĂNTU V., A. MOISUC, G. MOTCĂ, I. ROTAR, (2004), <i>Cultura pajiștilor și a plantelor furajere</i>, Ed. „Ion Ionescu de la Brad”. 		
<p>Optional bibliography:</p> <ol style="list-style-type: none"> 1. Carlier, L., I. Puja, I. Rotar, <i>For a better grass production</i>, Ed. RisoPrint, 2. <i>Buletinul ICPCP Brașov</i>, 3. <i>Revista Fourrages 2000-2013</i> 4. <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 means of modernization and continuous improvement in teaching and building courses by means of updating information and didactic solutions, the teaching personnel participates in the annual reunion of the Romanian Grassland Society (SRP) where they also meet with farmers and debate present challenges in the use of grasslands and the production of forage crops 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	<p>Can demonstrate knowledge of grassland maintenance technology.</p> <p>Understand natural and sown grassland management.</p> <p>Knows the principles using grasslands by grazing and the methods of conserving forage.</p> <p>Knows the principles of using grasslands by mowing.</p>	Summative(E)	70%
10.5. Seminar/Laboratory	<p>Can demonstrate the capacity to create a grazing plan.</p> <p>Can demonstrate the capacity to create plant mixes.</p> <p>Can demonstrate research abilities for studying grass cover</p>	continuous(VP) in 1 round	30%
10.6. Minimum performance standards			
Mastering the scientific information communicated within the course at an acceptable level. Obtaining a passing grade at continuous evaluations (VP).			

- 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
04.09.2019

Course coordinator
Lect. Florin Păcurar PhD

Laboratory work/seminar coordinator
Lect. Florin Păcurar PhD




Approved by the
department on
05.09.2019

Head of the Department
Prof. Duda Marcel PhD

