

DISCIPLINE DESCRIPTION

1. Information on the study programme

1.1 Academic Institution	University of Oradea
1.2 Faculty	Faculty of Environmental Protection
1.3 Department	Animal Husbandry and Agritourism
1.4 Field of study	Animal Husbandry
1.5 Cycle of study	Bachelor
1.6 Study programme/Qualification	Animal Husbandry/Engineer

2. Information on the discipline

2.1 Name of discipline	Production and Conservation of Fodder I						
2.2 Course holder	Lect. PhD. Eng. Codrin Gavra						
2.3 Seminar/Laboratory/Project holder	Lect. PhD. Eng. Codrin Gavra						
2.4 Year of study	I	2.5 Semester	I	2.6 Type of evaluation	Exam	2.7 Regime of discipline	C

(C) Compulsory; (O) Optional; (E) Elective

3. Total estimate time (hours per semester of didactic activities)

3.1 Number of hours per week	4	out of which: 3.2 course	2	out of which: 3.3 seminar/laboratory/project	2
3.4 Total hours in the curriculum	56	out of which: 3.5 curs	28	out of which: 3.6 seminar/laboratory/project	28
Time allotment					hours
Study assisted by manual, course support, bibliography and notes					20
Additional documentation in the library/on specialised electronic platforms and in the field					20
Preparation of seminars/laboratories/topics/reports, portfolios and essays					20
Tutorship					3
Examinations					4
Other activities: consultations					2
3.7 Total hours of individual study	69				
3.8 Total hours per semester	125				
3.9 Number of credits	5				

4. Prerequisites (where appropriate)

4.1 curriculum	•
4.2 competences	• Competences of information and documentation, the application of knowledge, of individual and group activity.

5. Conditions (where appropriate)

5.1. related to course	<ul style="list-style-type: none"> • Lecture hall equipped with laptop, projector, whiteboard, plates, which ensures conditions for active and interactive learning; • It requires compliance with the rules of ethics and good conduct during the course and respecting the timetable; • Active presence and attendance at courses is recommended, absences implicitly affecting the final result. In the case of absences, the responsibility lies with the students to determine the part of the lost subject matter and take measures for recovery; • Mobile phones and similar devices are not allowed during classes.
5.2. related to seminar/laboratory/ project	<ul style="list-style-type: none"> • Laboratory with material endowments specific to the discipline, respectively practical-applicative learning conditions; • Students are required to wear white robe at the laboratory works, respectively equipment suitable for field trips; • Mobile phones and similar devices are not allowed during classes.

6. Specific competences acquired	
Professional competences	<ul style="list-style-type: none"> • The ability to identify and recognize the phytotaxons specific to the flora and grassland vegetation; • Knowledge of modern and efficient methods of production and conservation of fodder; • The optimizing of fodder base; • Knowing the nutritional value of fodder and how to use the main feed sources for different animal species.
Transversal competences	<ul style="list-style-type: none"> • Use of effective lifelong learning methods and techniques for the purpose of training and continuous professional development; • Responsible and effective implementation of the tasks related to the professions in the field, while respecting the principles of professional ethics; • Identifying the role of a team and assuming the appropriate professional and personal responsibilities; • Cultivating a correct and timely work discipline, responsibility for work, team spirit formation, and awareness of the importance of search and research.

7. Objectives of discipline (coming from the specific competences acquired)

7.1 General objective	<ul style="list-style-type: none"> • Acquiring theoretical and practical knowledge of grassland vegetation.
7.2 Specific objectives	<ul style="list-style-type: none"> • Assimilation by students of knowledge regarding the cultivation of fodder crops; • Establishment of plant cultivation structures within agricultural and forage crops.

8. Content*

8.1 Course	Methods of teaching	No. of hours/remarks
I. The place and importance of fodder plants in agricultural production. Vegetation of permanent grasslands. Poaceae (Grasses).	Lecture, debate	2
II. Fabaceae (Legumes), Cyperaceae (Sedges) and Juncaceae (Rushes). Plants from other botanical families.	Lecture, video projection system of the didactic material, debate, plates	2
III. Changes occurring in the vegetation of permanent meadows. Elements of ecology.	Exposing, video projection system of the didactic material	2
IV. The main types of meadows in Romania.	Lecture, exemplification, debate	2
V. Improvement of permanent meadows through surface measures, technical-cultural works, improvement of water and air regime.	Lecture, video projection system of the didactic material, debate, plates	2
VI. Fertilization of permanent meadows.	Lecture, debate	2
VII. Combating weeds in meadows. Self-sowing and over-sowing of meadows.	Exposing, video projection system of the didactic material	2
VIII. Establishment of cultivated meadows: pre-culture crops, protective crops, fertilization and land preparation.	Lecture, video projection system of the didactic material	2
IX. Composition of the mixture of perennial grasses and leguminous species, sowing, maintenance and use of temporary meadows.	Lecture, video projection system of the didactic material	2
X. Rational use of meadows. Grazing systems. Grazing technique.	Lecture, exemplification, debate	4

XI. Principles of organizing rational pasture on grass field.	Exposing, video projection system of the didactic material	2
XII. Preparation of the plan for the use of grasslands. Meat maintenance and harvesting measures.	Lecture, video projection system of the didactic material, debate	2
XIII. Preparation and storage of hay.	Lecture, debate	2
Bibliography:		
<ol style="list-style-type: none"> Burcea P., Panait V., Popescu V., Bratu V. – <i>Production and Conservation of Fodder</i>, Didactics and Pedagogy Publishing House București, 1981 Coste I. – Course "<i>Plant Morphology and Anatomy</i>", Lito., USAMVB Timișoara, 1993 Coste I. – Course "<i>Plant Systematics</i>", Lito., USAMVB Timișoara, 1994 Dragomir N. – Curs "<i>Production and Conservation of Fodder</i>" Lito , USAMVB, 1997 Erdelyi Ș., Ionel A., Arvat N., Iacob T., Ignat A., Simtea N. – <i>Production and Conservation of Fodder</i>, Tipografia Agronomia, Cluj-Napoca, 1990 Ignat A., – <i>The Basis of Fodder Production</i>, Didactics and Pedagogy Publishing House București, 2000 Arvat N., Birescu L. – <i>Production and Conservation of Fodder</i>, L.P., Lito. I.A. Timișoara, 1988 Dragomir N., Pet I. – <i>Production and Conservation of Fodder</i>, L.P., Ed. Waldpress Timișoara, 2002 		
8.2 Laboratory	Methods of teaching	No. of hours/remarks
I. The description and recognition of grasses with spike and false spike from the grassland flora.	Exposing, debate, plates, outing on the field	4
II. Description and recognition of grasses with panicle with single, double and multi floral spikes.	Exposing, debate, plates, outing on the field	4
III. Presentation of the main leguminous species from the grassland flora.	Exposing, debate, plates, outing on the field	2
IV. Recognize seeds of the main grasses and leguminous species in the grassland flora.	Exposing, debate, plates, outing on the field	2
V. Description and recognition of toxic grassland plants.	Exposing, debate, plates, outing on the field	2
VI. Presentations of plants that depreciate the quality of animal production.	Exposing, debate, plates, outing on the field	2
VII. Inventory and mapping of meadows. Ground soil characterization.	Exposing, debate, plates, outing on the field	2
VIII. Methods of fertilization of permanent and temporary meadows.	Exposing, debate, plates, outing on the field	2
IX. Presentation of the structure of mixtures of perennial grasses and leguminous species for the establishment of temporary meadows.	Exposing, debate, plates, outing on the field	2
X. Ways of rational use of meadows.	Exposing, debate	2
XI. Coating of coarse and juicy fodder.	Exposing, debate	2
XII. Appreciation of the quality of the hay and silage fodder.	Exposing, debate	2
Bibliography:		
<ol style="list-style-type: none"> Burcea P., Panait V., Popescu V., Bratu V. – <i>Production and Conservation of Fodder</i>, Didactics and Pedagogy Publishing House București, 1981 Coste I. – Course "<i>Plant Morphology and Anatomy</i>", Lito., USAMVB Timișoara, 1993 Coste I. – Course "<i>Plant Systematics</i>", Lito., USAMVB Timișoara, 1994 Dragomir N. – Curs "<i>Production and Conservation of Fodder</i>" Lito , USAMVB, 1997 Erdelyi Ș., Ionel A., Arvat N., Iacob T., Ignat A., Simtea N. – <i>Production and Conservation of Fodder</i>, Tipografia Agronomia, Cluj-Napoca, 1990 Ignat A., – <i>The Basis of Fodder Production</i>, Didactics and Pedagogy Publishing House București, 2000 Arvat N., Birescu L. – <i>Production and Conservation of Fodder</i>, L.P., Lito. I.A. Timișoara, 1988 Dragomir N., Pet I. – <i>Production and Conservation of Fodder</i>, L.P., Ed. Waldpress Timișoara, 2002 		

* The content, respectively the number of hours allocated to each course/seminar/laboratory/project will be detailed during the 14 weeks of each semester of the academic year.

* The books presented in the bibliography are printed in Romanian language. Titles and Publishing Houses have been translated into English language for the discipline description.

9. Corroboration of discipline content with the expectations of the epistemic community, professional associations and representative employers from the field corresponding to the study programme

- Discipline exists in the curricula of the universities and profile faculties of Romania, thus being in accordance with the curriculum in other university centres;
- By acquiring theoretical notions and practical aspects included in the discipline of *Production and Conservation of Fodder*, students acquire consistent knowledge to facilitate their application in professional work;
- For a better concordance and coordination of the discipline with the requirements of the labour market, have and will occur meetings with representatives of the business environment, respectively with professors from pre-university education.

10. Evaluation


Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	- The correctness of assimilated knowledge; - Coherence and logic in the subject's exposure; - Level of assimilation of the discipline specific terms.	Written examination, active participation in courses	70%
10.5 Laboratory	- The ability to apply the acquired notions in practice; - Level of assimilation of laboratory work.	Colloquium, active participation in the laboratory	30%
10.6 Minimum standard of performance			
<ul style="list-style-type: none"> • Correct assimilation of elementary notions and terms specific to discipline, respectively the recognition of phytotaxons (species) and application of grassland improvement technology. 			

Date of completion
19.06.2023

Signature of course holder
Lecturer Dr. Eng. Codrin Gavra
(gavracodrin@gmail.com)



Signature of seminar
laboratory/project holder
Lecturer Dr. Eng. Codrin Gavra
(gavracodrin@gmail.com)



Date of approval in the department
21.06.2023

Signature of the Head of Department
Lecturer Dr. Eng. Monica Dodu
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