



Nr. _____ from _____

Form USAMV 0107030216

DISCIPLINE FILE

1. Date despre program

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Agriculture
1.3. Department	Environmental and plant protection
1.4. Field of studies	Environmental Engineering
1.5. Cycle of studies I)	License
1.6. Specialization / Study program	Environmental Engineering
1.7. Form of education	IF

2. Data Discipline

2.1. Name of the discipline	MANAGEMENT OF SILVIC ECOSYSTEMS							
2.2. Holder of course activities					PhD.Lecturer. Petru Burduhos			
2.3. Holder of seminar / laboratory / project activities					PhD.Lecturer. Petru Burduhos			
2.4. Year of studies	III	2.5. Semesters	II	2.6. Type of evaluation	Colloquy	2.7. The discipline regime	Content2	DS
							Obligatory3	DO

3. Estimated total time (hours per semester of teaching activities)

3.1. Number of hours per week - frequency form	4	din care: 3.2. curs	2	3.3. seminar/ laborator/ proiect	2
3.4. Total hours of the curriculum	56	din care: 3.5.curs	28	3.6.seminar/laborator	28
Distribution of the time fund					ore
3.4.1. Study by handbook, course support, bibliography and notes					10
3.4.2. Additional documentation in the library, on specialized electronic platforms and in the field					4
3.4.3. Preparation of seminars / laboratories / projects, topics, reports, portfolios and essays					4
3.4.4.Tutorials					2
3.4.5.Examinations					2
3.4.6. Other activities					
3.7. Total hours of individual study	22				
3.8. Total hours per semester	78				
3.9. Number of credits ⁴	3				

4. Preconditions (where applicable)

4.1. of curriculum	Botany, Elements of Biology and Microbiology, Plant Protection and the Environment
4.2. of skills	The student must have knowledge about ecology and forest protection

5. Conditions (where applicable)

5.1. course development	Room equipped with computer, video projector and blackboard. 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 and the discipline during its course.
5.2. for conducting 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 work guide. The academic discipline is required throughout the duration of the works.

6. Specific skills acquired

Professional skills	<ul style="list-style-type: none"> - the acquisition of the preferential knowledge to ensure the continuity and the sustainable management of the forest ecosystems - knowledge of networks for monitoring the health status of forests;
Transversal competences	<ul style="list-style-type: none"> - the ability to develop research projects on monitoring the health status of forests; - the use of computer resources in the administration of databases on forest monitoring

7. The objectives of the discipline (based on the grid of specific skills acquired)

7.1. The general objective of the discipline	<ul style="list-style-type: none"> - Theoretical and practical training of the students, in order to learn the methods regarding the sustainable management of the forest ecosystems
7.2. Specific objectives	<ul style="list-style-type: none"> - acquiring knowledge about the main forest species and their role in ecosystems; - the knowledge of the technologies of production of the seedlings and of installation of the forest crops; - monitoring the state of forests and other influencing factors in ecosystems.

8. Contents

8.1. COURSE Number of hours – 28	Teaching methods	Remarks
GENERAL CONSIDERATIONS The spread of forests and their special importance in ecosystems The history of the Romanian forest. Flora and fauna, elements of forest ecosystems. Sustainable management and continuity of forests	Lecture	2 h
FOREST SPECIES AND THEIR SPREAD AREAS General. Territorial zoning of forest vegetation. General and morphological elements in the study of woody plants. Morphological basis of the study of woody plants. The ecological basis of the study of woody plants. Units of classification of woody plants. The main species of resin and their economic-ecological importance. The main deciduous species and their economic-ecological importance.	Lecture	2 h
INSTALLATION OF FOREST CULTURES. Seminological bases and their importance in improving the quality of propagating material. Harvesting the conditioning and preservation of forest seeds. The organization of nurseries and the ecology of the crops within them. Works carried out in nurseries (soil work, fertilizer administration, amendments, demolitions). Production of forest and ornamental seedlings in nurseries. Harmful factors of nursery crops and control measures. Installing young crops. Ecological reconstruction of lands with degradation phenomena.	Lecture	10 h

SILVOBIOLOGY AND SILVOTEHNICA The community forest of life (forest ecosystem). Forest ecology Ecosystem processes in the existence and development of the forest. Foundation of the forest. Care and management of the forest. Diets and treatments. Forest exploitation - the first act of culture. Monitoring the health status of forests.	Lecture	6 h
THE HUNT-COMPONENT OF FOREST ECOSYSTEMS The main species of hunting interest in Romania Hunting fund management	Lecture	4 h

8.2 PRACTICAL WORK		
Number of hours – 28		
The beneficial effects of forests on the main environmental factors	Individual study	4 h
The main species of forest interest	Individual study and field trip	4 h
Organization and operation of forest nurseries (referred).	Individual study	4 h
Installation and maintenance of young crops	Individual study and field trip	4 h
Health status of forests and ways of influencing ecosystems	Individual study	2 h
Monitoring soil-forest vegetation in forestry	Individual study	4 h
The main species of hunting interest	Individual study	2 h
Risk factors for forest ecosystems	Individual study	4 h
Required bibliography: 1. Holonec, L. - 2004, Tehnologii moderne în protecția integrată a pădurilor clujene, Editura AcademicPres, Cluj Napoca. 2. Holonec, L., - 2007, Impăduriri – semințe forestiere, Editura AcademicPres, Cluj-Napoca 3. Badea, O., Pătrășcolu, N., - 1995, Îndrumări tehnice privind monitoringul forestier, ICAS București. 4. Florescu, I., - 1981, Silvicultură, Editura Didactică și Pedagogică, București. 5. I.C.A.S. - 2000, Îndrumări tehnice privind monitoringul forestier, București. 6. Șofletea, N., Curtu, I., - 2001, Dendrologie – corologia, ecologia și însușirile biologice ale speciilor, Editura Pentru Viață, Brașov.		
Optional bibliography: 1. Simionescu, A., și alții – 2001, Starea de sănătate a pădurilor din România, Editura Mușatinii, Suceava. 2. M.A.P.P.M. - 2000, Norme și îndrumări tehnice privind protecția pădurilor – nr. 6, București.		

9. Corroborating the contents of the discipline with the expectations of the representatives of the epistemic communities, professional associations and representative employers in the field related to the program

The issue addressed at the course hours and practical work is in close accordance with the profile programs of other university centers in the country and abroad. In order to better adapt to the demands of the labor market, the results of the discussions with representatives of the state forestry administration, the association of forest owners, the administrators of the private structures and of the logging, transport and wood processing companies were taken into account.

10. Evaluation

Activity type	10.1. Evaluation criterias	10.2. Methods of evaluation	10.3. Weight in the final grade
10.4. Course	Forest species and their range Installation of forest crops Silvobiology and forestry The hunting component of forest ecosystems	Colloquy	70%
10.5. Seminar / Laboratory	The beneficial effects of forests on the main environmental factors Organization and functioning forest	There are 3 tests during the semester	30%

	nurseries. Monitoring soil-forest vegetation in forestry		
10.6. Minimum standard of performance			
Mastery of scientific information transmitted through lectures and practical papers at an acceptable level. Obtaining the passing grade for on-the-spot checks is a condition of promotability.			

- ¹ The cycle of studies - one of the variants is chosen - Bachelor / Master / Doctorate
- ² Discipline regime (content) - for the license level one of the variants is chosen - DF (fundamental discipline), DD (discipline in the field), DS (specialty discipline), DC (complementary discipline).
- ³ The discipline regime (compulsory) - one of the variants is chosen - DI (compulsory discipline) DO (optional discipline) DFac (optional discipline).
- ⁴ A credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Date completed

04.09.2019

Course holder

PhD.Lecturer, Petru BURDUHOS

Holder of laboratory works / seminars

PhD.Lecturer, Petru BURDUHOS

Date of approval in the department

05.09.2019

Department Director

Ph.D.Professors Ioan DROIAN