Annex 6

SUBJECT OUTLINE

1. Information on the study programme

1.1 Academic institution	**UNIVERSITY OF ORADEA**
1.2 Faculty	**FACULTY OF ENVIRONMENTAL PROTECTION**
1.3 Department	**FORESTRY AND FOREST ENGINEERING**
1.4 Field of study	**FORESTRY**
1.5 Cycle of study	**BACHELOR**
1.6 Study programme/Qualification	**FORESTRY EXPLOITATION/ ENGINEER**

2. Information on the discipline

2.1 Name of discipline				**FOREST SITES**			
2.2 Course holder				Lecturer **MOȚIU PETRICĂ TUDOR**, Eng. PhD			
2.3 Seminar/Laboratory/Project holder				Lecturer **MOȚIU PETRICĂ TUDOR**, Eng. PhD			
2.4 Year of study	II	2.5 Semester	I	2.6 Type of evaluation	Summative	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 laboratory	2
3.4 Total hours in the curriculum	56	out of which: 3.5 course	28	out of which 3.6 laboratory	28

Time allotment	hours
Study assisted by manual, course support, bibliography and notes	21
Additional documentation in the library/ on specialised electronic platforms and in the field	12
Preparation of seminars/laboratories/ topics/reports, portfolios and essays	12
Tutorship	16
Examinations	8
Other activities.....	
3.7 Total hours of individual study	**69**
3.9 Total hours per semester	**125**
3.10 Number of credits	**5**

4. Pre-requisites (where appropriate)

4.1 curriculum	Geology and geomorphology, Pedology. Botany - Plant systematics. Meteorological
4.2 competences	Knowledge of the lithological substrate (minerals and rocks). Knowledge of units and landforms. Knowledge of soil types and subtypes. Knowledge of indicator plants (humidity, pH, trophicity).

5. Conditions (where appropriate)

5.1. related to course	Video projector, computer
5.2. related to seminar/laboratory/ project	Equipment related to the development of laboratory hours (soil micromonolites, pedological kits for the field, drawings and color photographs, etc.) Carrying out all laboratory work and field trips.

6. Specific competences acquired	
Professional competences	□ C1.1 Description of the theoretical and practical foundations of silvotechnics processes (by describing the types of forest sites, the quality and phytocenotic aptitude) of those characteristic of the hunting fund, and of biodiversity; □ C3.1 Defining ecological risk situations, methods, techniques and procedures that can be used in ecological reconstruction of ecosystems; □ C2.2 Explaining and interpreting the phenomena and processes associated with the field of forest production (by presenting the ecology of forest sites); □ C4.2 Explain the techniques adopted in order to perform the internal analysis of forest ecosystems.
Transversal competences	□ CT1. Carrying out projects under coordination, in order to solve some problems specific to the field, with the correct evaluation of the workload. □ CT3. Objective self-assessment of the need for continuous training in order to constantly adapt and respond to the demands of economic development; the use of information and communication techniques and an international language.

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

7.1 General objective	The course "Forest Sites" aims to familiarize students with the basics needed to know the floors and sub-floors of the station and the main types of forest sites related to them. Through the wealth of scientific data it offers (diagnosis and description of resort types; typology and seasonal mapping; main forest sites in Romania; factors influencing the quality of a site, etc.) This course will be able to contribute in the future to a rational and implicitly sustainable management of forests.
7.2 Specific objectives	The laboratory works are designed to provide future forestry engineers with practical skills on identifying (in the field) and describing of the main types of forest sites in our country.

8. Contents*/

8.1 Course	Methods of teaching	No. of hours/Remarks
1. 1. The forest site as a system with integrity and integrated in the forest ecosystem	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
2. Analysis of the components of the site. Sites factors.	Video projector. Some	2

Classification	parts of the course take place through lectures, presentations and debates by students.	
3. Forest site factors. Description.	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
4. Basic principles and working method in the forest site typology	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
5. Characterization of the main forest sites in Romania. Mountain forest sites (FM)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
6. Mountain Norway spruce forest sites (FM_3)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
7. Mixed mountain forest sites (FM_2)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
8. Mountain and pre-mountain European beech forest sites ($FM_1 + FD_4$)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
9. Forest hill sites (FD)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
10. European beech and Sessile oak forest hill sites (FD_3)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
11. Oaks (Common oak, Sessile oak, Turkey oak, Hungarian oak) and hill mixed hardwood forest sites (FD_2)	Video projector. Some parts of the course take place through lectures, presentations and debates by students.	2
12. Oak hill forest sites (FD_1)	Video projector. Some	2

	parts of the course take place through lectures, presentations and debates by students.	
13. Plain forest sites (FC). Forest-steppe forest sites (Ss)	Video projector. Some parts of the course take place through lectures, presentations and debates by students	2
14. Site forest mapping	Video projector. Some parts of the course take place through lectures, presentations and debates by students	2

Bibliography

1. Motiu P.T., 2020. Curs - *Staţiuni forestiere*, Oradea.
2. Chirita C., 1971. *Principiile şi metodologia şcolii românesti privind studiul staţiunii şi cartarea staţională forestieră*. Lucr. Conf. Nat. Pedologie Azuga. Editura Academiei R.S.R, Bucuresti.
3. Chirita C.,si colab., 1964. Fundamentele naturalistice si metodologice ale tipologiei si cartarii stationale forestiere, Editura Academiei R.S.R., Bucuresti.
4. Chirita C., Vlad I., Paunescu C., Rosu C., Patrascoiu N., 1977. *Staţiuni forestiere*. Editura Academiei R.S.R, Bucuresti.
5. Florea N., Munteanu I. – Sistemul roman de taxonomie a solurilor (SRTS) Editura Estfalia , Bucuresti, 2002.
6. Târziu D., 1997. Pedologie şi staţiuni forestiere, Editura Ceres, Bucuresti.
7. Târziu, D. R., 2006. *Pedologie şi staţiuni forestiere.* Editura Silvodel, Braşov.

8.2 Laboratory	Methods of teaching	No. of hours/ Remarks
1. Presentation of the main types of Norway mountain spruce forest sites (FM_3)	In the first hour there will be a training related to labor protection specific to laboratory works. Description of the types of forest sites.	2
2. Presentation of the main types of mixed mountain forest sites (FM_2)	Description of the types of forest sites.	2
3. The main types of mountain and pre-mountain European beech forest sites ($FM_1 + FD_4$)	Description of the types of forest sites.	4
4. Practical work performed in the field. Mountain, pre-mountain forest sites.	Description of the types of forest sites.	2
5. The main types of European beech and Sessile oak forest hill sites (FD_3)	Description of the types of forest sites.	2
6. The main types of Oaks and hill mixed hardwood forest sites (FD_2)	Description of the types of forest sites.	2
7. Presentation of the main types of Oaks and Common oak forest sites (FD_1)	Description of the types of forest sites.	2
8. Practical works performed in the field. Hill forest sites.	Description of the types of forest sites.	2
9. Presentation of the main types of Plain forest sites (FC)	Description of the types of forest sites.	2
10. Presentation of the main types of Forest-steppe	Description of the types of	2

forest sites (Ss)	forest sites.	
11. Practical works performed in the field. Plain forest sites.	Description of the types of forest sites.	2
12. Site forest mapping. Phases of forest site mapping.	Description of the phases of forest site mapping.	4

Bibliography

1. Moţiu P. T., 2020. *Îndrumar de lucrări practice la Staţiuni forestiere*, Oradea.
2. Chirita C., 1971. *Principiile şi metodologia scolii românesti privind studiul staţiunii şi cartarea staţională forestieră*. Lucr. Conf. Nat. Pedologie Azuga ,Editura Academiei R.S.R, Bucuresti.
3. Chirita C.,si colab.,1964. *Fundamentele naturalistice şi metodologice ale tipologiei si cartarii stationale forestiere*. Editura Academiei R.S.R., Bucuresti.
4. Chirita C., Vlad I., Paunescu C., Rosu C., Patrascoiu N., 1977. *Statiuni forestiere*. Editura Academiei R.S.R, Bucuresti.
5. Florea N., Munteanu I., *Sistemul roman de taxonomie a solurilor (SRTS)*. Editura Estfalia, Bucuresti, 2002.
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7. Târziu, D. R., 2006. *Pedologie şi staţiuni forestiere.* Editura Silvodel, Braşov.

* 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.

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

The content of the discipline is adapted and satisfies the requirements imposed by the labor market, being agreed by the social partners, professional associations and employers in the field related to the bachelor program. The content of the discipline is found in the curriculum of Forestry and other university centers in Romania that have accredited these specializations, so knowledge of the basics is a stringent requirement of employers in the field of Forestry and Forest Exploitation, such as: RNP, ICAS, IFN, etc.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Exam (written) - For grade 5: all subjects must be treated to minimum standards; - For grades > 5 all subjects must be treated to maximum standards;	The exam consists of 3 topics from the course topic. In order to pass the exam, each subject must be treated for at least grade 5.	75%
10.5 Seminar			
10.6 Laboratory	Evaluation test (written) - For grade 5: all subjects must be treated to minimum standards; - For grades > 5 all subjects must be treated to maximum	Practical exam.	25 %

	standards;		
10.7 Project	-		
10.8 Minimum standard of performance			
Minimum performance standard: Carrying out coordinated work to solve specific problems in the field of forestry and forest exploitation, with the correct assessment of workload, available resources, time required for completion and risks, under conditions of application of safety rules and occupational health.			
Grade components: Exam (Ex), Laboratory (L); - Note calculation formula: N = 0.75Ex + 0.25L; - Condition for obtaining loans: N> 5; L> 5;			

Date of completion
14.09.2020

Signature of course holder**
Lecturer Moțiu Petrică Tudor, Eng. PhD

Signature of seminar laboratory/project holder **
Lecturer Moțiu Petrică Tudor, Eng. PhD

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Date of approval in the department
05.10.2020

Signature of the Head of Department***
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ichereji@uoradea.ro

** - Name, first name, academic degree and contact details (e-mail, web page, etc) will be specified.
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*** - Name, first name, academic degree and contact details (e-mail, web page, etc) of the academic entity beneficiary of the Discipline Outline will be specified.
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