

Annex 6

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	FORESTRY AND FOREST ENGINEERING
1.4 Field of study	FORESTRY
1.5 Cycle of study	BACHELOR
1.6 Study programme/Qualification	FORESTRY/ ENGINEER

2. Information on the discipline

2.1 Name of discipline	WOOD EXPLOITATION I						
2.2 Course holder	TIMOFTE Adrian Ioan						
2.3 Seminar/Laboratory/Project holder	TIMOFTE Adrian Ioan						
2.4 Year of study	III	2.5 Semester	5	2.6 Type of evaluation	Ex.	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 course	28	out of which 3.6 seminar/laboratory/project	28
Time allotment					h
Study assisted by manual, course support, bibliography and notes					7
Additional documentation in the library/ on specialised electronic platforms and in the field					8
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					14
Tutorship					7
Examinations					8
Other activities.....					
3.7 Total hours of individual study	44				
3.9 Total hours per semester	100				
3.10 Number of credits	4				

4. Prerequisites (where appropriate)

4.1 curriculum	(Conditioning)
4.2 competences	

5. Conditions (where appropriate)

5.1. related to course	
5.2. related to seminar/laboratory/ project	

6. Specific competences acquired	
Professional competences	- Elaboration and implementation of technical-economic projects regarding the regulation of the forestry, hunting and salmon production process - analyzing and evaluating specific projects and processes through the appropriate use of criteria and standardized assessment methods (estimation) - explanation and interpretation of the phenomena and processes associated with the field of forestry, hunting and trout farming production; - identification and application of methods, techniques, procedures and tools for design and optimization of forestry, hunting and trout farming processes; - Application of measures to protect, improve and increase the productivity of forest ecosystems
Transversal competences	- Elaborating and following a work schedule and carrying out own duties with professionalism and rigour - Application of effective communication techniques in the specific activities of team work; assuming a role within the team and respecting the principles of the labour division

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

7.1 General objective	The course in Forest Engineering aims to familiarize students with the means, methods, and work technologies as well as with the design and organization of specific works in the field of silvicultural interventions.
7.2 Specific objectives	In the framework of the practical works, the emphasis is placed on knowing all the tools, machines and installations used in production and their mode of operation and use is presented

8. Content*/

8.1 Course	Methods of teaching	No. of hours/Remarks
1. Generalities. Definition. The role of forest exploitation	Interactive Lecture	2
2. The factors that influence the process of wood mass exploitation. The principles of wood exploitation activity	Interactive Lecture	2
3. Relationships between culture and forest exploitation. Raw material resource. The public forest fund of Romania.	Interactive Lecture	2
4. Silvicultural requirements regarding the wood exploitation process	Interactive Lecture	2
5. Structure of the exploitation process. Wood cutting	Interactive Lecture	2
6. Wood harvesting. Basic elements. Harvesting means	Interactive Lecture	2
7. Felling trees. Methods of felling trees.	Interactive Lecture	2

8. Debranching . Sectioning of trees. Harvesting wood in special situations.	Interactive Lecture	2
9. Wood collection. Basic elements. Specific works. Ways of moving wood for its collection. Means of wood collection.	Interactive Lecture	2
10. Collecting wood with tractors.	Interactive Lecture	2
11. Collecting wood with cable yarders. Collecting wood with cable yarder tractor.	Interactive Lecture	2
12. Wood collection with hitches. Wood collection with sliding installation. Collecting wood by uprooting. Collecting wood by other means. Damages that can be brought to the forest by wood collection and technical measures to reduce them.	Interactive Lecture	2
13. Operations in the primary platform.	Interactive Lecture	2
14. Labour productivity in wood exploitation operations in a felling area.	Interactive Lecture	2
Bibliography		
1. Timofte A. I.– Exploatarea pădurilor. University of Oradea Publishing House, 2007		
2. Ciubotaru, A.- Exploatarea pădurilor, Lux Libris Publishing House, 1998		
3. Ciubotaru A., Câmpu V.R., David E.C. – Exploatarea si prelucrarea lemnului, Transilvania University of Braşov Publishing House, 2012		
4. Furnică, H., Beldeanu, E.- Exploatarea pădurilor cu elemente de industrializare a lemnului, Ceres Publishing House, Bucharest, 1985		
5. Horodnic S., 2014 - Sisteme tehnologice forestiere cu impact ecologic redus. University of Suceava Publishing House		
6. Horodnic S., 2003 – Bazele exploatării lemnului, University of Suceava Publishing House		
7. Ionaşcu Gh., 2002 – Exploatarea şi valorificarea lemnului. Tridona, Olteniţa		
8. Ionaşcu, Gh., Constantinescu, Gh. – Exploatare, transporturi şi construcţii forestiere, Ceres Publishing House, Bucharest, 1987		
9. Oprea I., Sbera I., 2000 – Tehnologia exploatării lemnului. Vol. I. Elemente de bază şi tehnici procesuale. Transilvania University of Braşov Publishing House		
10. xxx, 2000, Technical norms, Ministry of Water, Forests and Environmental Protection		
11. Norms used in forest exploitation		
12. Standards in force, Order 1540/2011 updated, etc		
8.3 Laboratory		
1. Handtools used in forestry exploitation.	exposure, application	2
2. Mechanical saws. Composition. Operating principle.	exposure, application	2
3. Mechanical saws. Mode of operation and maintenance – field trip	exposure, application	2
4. Wood sectioning – field trip	exposure, application	2
5. Forestry tractors. Constructive types. Specific equipment.	exposure, application	2
6. Forestry tractors. Exploitation. Maintenance. Work methods – field trip	exposure, application	2
7. Determining the fuel consumption of mechanical saws and tractors.	exposure, application	2
8. Steel cable. Characteristics. Constructive types. Use in forestry operations.	exposure, application	2
9. Installations with cables. Constructive types.	exposure, application	2
10. Installations with cables. Schemes of use. Exploitation. Maintenance.	exposure, application	2
11. Autotrols. Constructive types. Procedure.	exposure, application	2
Types of vehicles used in forest exploitation – field trip		
12. Downloaders. Splitters. Debarkers. Internal transport of wood – field trip	exposure, application	2
13. Choppers. Constructive types. Reception of the wooden	exposure, application	2

mass.		
14.Assessment of laboratory knowledge	exposure, application	2
Bibliography 1. Timofte A.I., Budău R. – Exploatarea pădurilor. Indrumar de lucrări practice și de proiectare. AcademicPres Publishing House, Cluj-Napoca, 2008 2. Câmpu V. R., 2018: Ghidul utilizatorilor de ferăstraie mecanice. Transilvania University of Braşov Publishing House 3. Ciubotaru, A.- Elemente de proiectare și organizare a exploatării pădurilor Lux Libris Publishing House, 1996 4. Furnică, H., Beldeanu, E.- Exploatarea pădurilor cu elemente de industrializare a lemnului, Ceres Publishing House, Bucharest, 1985 5. Horordnic S., 2014 - Sisteme tehnologice forestiere cu impact ecologic redus. Suceava University Publishing House 6. Horodnic S., 2003 – Bazele exploatării lemnului, Suceava University Publishing House 7. Ionaşcu Gh., 2002 – Exploatarea și valorificarea lemnului. Tridona, Oltenița 8. Oprea I., 1995 – Organizarea șantierelor de exploatare a lemnului. Didactic and Pedagogic Publishing House, Bucharest 9. Oprea I., Sbera I., 2000 – Tehnologia exploatării lemnului. Vol. I. Elemente de bază și tehnici procesuale. Transilvania University of Braşov Publishing House 10. xxx, 2000, Technical norms, Ministry of Water, Forests and Environmental Protection 11. Norms used in forest exploitation 12. Standards in force, Order 1540/2011 updated, etc		

* 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 contents of the discipline are based on the requirements of the labour market, ensuring the minimum competences of the students on specialized and general interest topics. The discipline also exists in the offer of other specialized faculties.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	General evaluation criteria Discipline-specific criteria Criteria aimed at the attitudinal and motivational aspects of the students' activity	Written exam	75%
10.5 Seminar			
10.6 Laboratory	General evaluation criteria Discipline-specific criteria Criteria aimed at the attitudinal and motivational aspects of the students' activity	Practical assessment	25%
10.7 Project			
10.8 Minimum standard of performance			
Minimum standards for grade 5:			

- acquisition of the main notions, principles, processes, operations from the forest exploitation activity;
- knowledge of the basic problems in the exploitation field

Minimum standards for grade 10:

- certain and correctly argued knowledge;
- the ability to formulate and analyze practical problems with a high degree of complexity;
- personal approach, systematization and interpretation;
- reading the bibliography.

Date of completion

.....

Signature of course holder**

Prof.dr.ing.Timofte Adrian
atimofte@uoradea.com

Signature of seminar
laboratory/project holder **

Prof.dr.ing.Timofte Adrian
atimofte@uoradea.com

Date of approval in the department

.....

Signature of the Head of Department

.....

Dean signature

.....

** - Name, first name, academic degree and contact details (e-mail, web page, etc) will be specified.

.....

Signature of the Head of Department***

.....

Dean Signature***

.....

*** - 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.

.....