COURSE OUTLINE
of the class 2024 - 2026

Transilvania University of Braşov

Master's degree	
study programme	**MULTIPLE PURPOSE FORESTRY**
Fundamental field	**Engineering Sciences**
Master's degree study field	**Silviculture**
Faculty	**Faculty of Silviculture and Forest Engineering**
Duration of studies	**2 years**
Form of education:	**Full-time (IF)**
Type of master's study programme:	**research**

1. EDUCATIONAL OBJECTIVES AND COMPETENCES

The general objective of the study program is to train specialists with the skills, knowledge, and competences necessary for managing leadership, management, and scientific research activities in the forestry field. This entails:

- mastering and understanding advanced concepts and terminology in forestry,
- acquiring and utilizing modern and future-oriented approaches, methods, and techniques related to forestry research and management,
- developing practical skills for managing research and management activities in forestry, and
- enhancing interaction skills at micro- and macro-social levels, as well as institutional interaction with relevant actors in national and international forestry management and research.

Occupations that can be practiced in the labor market according to the RNCIS are:

- **COR/ESCO Code: 214931** - Job Title: Forestry Operations Researcher
- **COR/ESCO Code: 214933** - Job Title: Assistant Researcher in Forestry Operations
- **COR/ESCO Code: 214932** - Job Title: Forestry Operations Research Engineer.

The competency profile developed in accordance with labor market needs and the national qualifications framework, along with the associated learning outcomes, are summarized below. A detailed presentation is available in the syllabi of the curriculum.

Professional Competences and Learning Outcomes

CP.1: Analysis, characterization, evaluation, and modeling of forest ecosystems and technical forest production systems.

- **LO 1.1**: The graduate understands the concepts, theories, principles, methods, techniques, and technologies applied and anticipated in forest ecosystem management and forest production systems.
- **LO 1.2**: The graduate applies/uses concepts, theories, principles, methods, techniques, and technologies related to forest ecosystem management and forest production systems.

CP.2: Analysis, characterization, evaluation, and modeling of forest-related economic, regulatory, political, and strategic systems.

- **LO 2.1**: The graduate understands the concepts, theories, principles, methods, techniques, and technologies applied and anticipated in economic, regulatory, political, and strategic systems in the forestry sector.
- **LO 2.2**: The graduate applies/uses concepts, theories, principles, methods, techniques, and technologies related to economic, regulatory, political, and strategic systems in the forestry sector.

Transversal Competences and Learning Outcomes

CT.1: Mastery of techniques and procedures for interaction, networking, and communication at the micro- and macro-social and institutional levels in the forestry sector.

- **LO 1.1**: The graduate objectively evaluates the responsibilities and capacities of team members or collaborators.
- **LO 1.2**: The graduate organizes activities based on employee qualifications, task complexity, and agreed time and performance norms.
- **LO 1.3**: The graduate employs effective communication strategies and techniques within the team and with external partners.

CT.2: Managing personal and interpersonal relationships specific to teamwork in forestry management and forestry research projects.

- **LO 2.1**: The graduate applies ethical principles in professional activities.

- LO 2.2: The graduate promotes high standards of quality and professional integrity in the team/program managed.
- LO 2.3: The graduate can efficiently lead teams and research projects.

CT.3: Objective self-evaluation of the need for continuous professional development to adapt competences to the dynamics of the field and labor market demands.

- LO 3.1: The graduate keeps updated with advances in techniques and research in their field of practice.
- LO 3.2: The graduate identifies opportunities for continuous professional development.
- LO 3.3: The graduate self-evaluates and plans realistic career development goals, identifying strategies to overcome professional challenges.

2. STRUCTURE PER WEEKS OF THE ACADEMIC YEAR

Number of semesters: 4 semesters (3 semesters of teaching activities + 1 semester dedicated to scientific research, including dissertation development).

Number of credits per semester: 30 credits

Number of hours of teaching activities /week: 15 hours

Number of weeks:

	Teaching activities		Exam sessions			Holidays		
	Sem. I	Sem. II	Winter	Sem. I	Sem. II	Winter	Sem. I	Sem. II
Year I	14	14	3	4	2	3	1	10
Year II	14	-	3	-	2	3	1	-

3. PROVISION OF EDUCATION FLEXIBILITY. CONDITIONINGS

The flexibilization of the study programme is ensured by optional disciplines and facultative disciplines.
The optional disciplines are proposed for the semesters 3, through packages of specialized disciplines.

4. C CONDITIONS OF ENROLLMENT IN THE FOLLOWING STUDY YEAR. CONDITIONS FOR PASSING A STUDY YEAR

The enrollment in the following year is conditional on meeting the conditions for passing contained in the Regulations on students' professional activity.

5. CONDITIONS FOR ATTENDING THE FACULTATIVE DISCIPLINES

This Course Outline includes, in addition to the compulsory and at choice (optional) disciplines, several facultative disciplines.

6. REQUIREMENTS FOR OBTAINING THE MASTER'S DEGREE DIPLOMA

The conditions for taking the dissertation exam are presented in the Methodology for the academic studies final examination, approved by the Senate of the University. According to this methodology, in order to enter the dissertation exam, all disciplines laid down in the course outline must have been passed.

Dissetation Exam

1 Period of drafting the dissertation: semesters 3 – 4;
2 Period of completing the dissertation: the last 3 weeks of the terminal year;
3. Period of defending the dissertation exam: July and February sessions
4. Number of credits for defending the dissertation: 10 credits.

Transilvania University of Braşov — Ministry of Education
Faculty of Silviculture and Forest Engineering — Valid in the academic year 2024-2025
Master's degree study programme: Multiple Purpose Forestry
Fundamental field: Engineering Sciences
Master's degree field: Silviculture
Duration of studies: 2 years
Form of education: Full-time
Type of master's degree programme: research

YEAR I

No.	Compulsory disciplines	Type*	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	International Environmental Governance and Forests		2	0	0	0	C	4						
2.	Remote Sensing and GIS in Natural Resource Management		1	0	2	0	E	5						
3.	Forests and Water		1	0	2	0	E	6						
4.	Applied Statistics in Forest Research		2	0	2	0	E	7						
5.	Biodiversity Conservation		1	0	1	0	E	4						
6.	Academic Skills in Forest Science		1	0	0	0	C	4						
7.	Forest Stand Dynamics								2	2	0	0	E	7
8.	Integrated Pest Management								1	0	2	0	E	7
9.	Management of Wildlife Populations								1	0	2	0	E	6
10.	Management of Timber Harvesting Operations								1	0	2	0	E	6
11.	Advanced Forest Biometry								1	0	1	0	C	4
Total hours compulsory disciplines			8	0	7	0		30	6	2	7	0		30
			15						15					

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YEAR II

No.	Compulsory disciplines	Type*	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Forest Management and Chain of Custody Certification		1	0	2	0	E	6						
2.	Strategy and Marketing of Forest Products		1	0	1	0	C	4						
3.	Silviculture and Yield of Forest Ecosystems		1	0	1	0	E	4						
4.	Research Activity								0	0	0	11	C	20
5.	Elaboration of MSc Thesis								0	0	0	4	C	10
Total hours compulsory disciplines			**3**	**0**	**4**	**0**		**14**	**0**	**0**	**0**	**15**		30
			7						**15**					

No.	Optional disciplines	Type	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
Choose one discipline from each package:														
Optional package 1														
4.	Forest Based Bio-economy		1	2	0	0	C	5						
	Management of Research Projects				0	0								
Optional package 2														
5.	Decision-Support Systems in Forest Ecosystem Management		1	0	1		E	5						
	Energy Procurement from Woody Biomass				1									
Optional package 3														
6.	Life Cycle Assessment in Forestry		1	0	2		E	6						
	Business Process Management in Forestry				2									
Total hours optional disciplines per week			3	2	3			16						
			8				16							
Total			15					30	15					30

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GENERAL BALANCE I

No.	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Compulsory	420	308	728	86.67	60	44
2	Optional	0	112	112	13.33		16
	TOTAL					**60**	**60**
3	Facultative						

GENERAL BALANCE II

No	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Fully / partially assisted disciplines	420	210	630	75.00	60	30
2	Research practice		150	150	17.86		20
3	Practice for drafting the dissertation		60	60	7.14		10
	TOTAL	**420**	**420**	**840**	**100**	**60**	**60**

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