



STUDY COURSE SYLLABUS «Sustainable Forestry»

Degree of higher education: Master
Specialty: 205 – Forestry
Educational-professional program “Forestry”
Year of study 1, semester 1
Form of education: - Full-time
Number of ECTS credits - 4
Tuition language - English

Study course lecturers

Professor Andrii Bilous
Associate Professor Ivan Lakyda

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Electronic study course URL at NULESU study portal

https://elearn.nubip.edu.ua/study_course/view.php?id=4647

STUDY COURSE DESCRIPTION

The discipline aims to study the theoretical bases of sustainable development, sustainable forestry, and learn indicators, criteria and tools to ensure sustainable forest management.

The objectives of the study course are:

- study the theoretical bases and mechanisms for achieving sustainable development;
- analyze the relevance, content and strategic importance of global goals of sustainable development;
- mastering the content of the global goal 15 "Life on land";
- acquaintance with international and regional trends in forestry development;
- study of ecological, economic and social pillars for the development of sustainable forestry;
- acquisition of skills in the use of legislative, informational, technological, economic and public tools to support sustainable forestry development and biodiversity conservation;
- development of strategic thinking and skills of sustainable forest management.

Competencies of the study course:

Integrative competency (IC):

- the ability to resolve complex tasks in forestry or during study process that require investigations or innovations.

General competencies (GC):

- ability to generate new ideas (creativity) (GC4);
- ability to work in an international context (GC7).

Professional (special) competencies (SC):

- ability to ensure sustainable development of forestry (SC 2);
- ability to assess regional peculiarities of natural and climatic conditions for the organization of efficient forestry, fulfillment of various functions by forests and increase of forest areas (SC3);
- ability to carry out educational activities among the population to form their environmental thinking, consciousness and responsibility for the environment (SC6).

Program learning outcomes (PLO) of the study course:

- specialized conceptual knowledge that includes modern scientific achievements in the field of forestry and is the basis for original thinking, sustainable development and research (PLO 1);
- communicate fluently orally and in writing in Ukrainian and foreign languages when discussing professional issues, research and innovation in the field of forestry (PLO 2);
- make effective decisions on forestry issues, including in difficult and unpredictable conditions; to predict its development; to identify factors that affect the achievement of goals; to analyze and compare alternatives; to assess risks and possible consequences of decisions (PLO 3);
- manage complex activities in the field of forestry and in broader contexts, ensure quality, evaluate efficiency and effectiveness of activities (PLO 5);
- assess the state of forest phytocoenoses, forest resources in specific forest vegetation conditions, their potential and to predict the possibilities of use (PLO 6);
- develop and implement scientific and applied projects in the field of forestry, taking into account available resources and risks, as well as economic, legal and environmental aspects (PLO 7);
- develop and improve technological and production processes, implement modern digital technologies (PLO 8);
- determine performance criteria and choose the optimal forestry strategy depending on external and internal conditions (PLO 9);
- clearly and unambiguously communicate their own knowledge, conclusions and arguments on forestry and related issues to specialists and non-specialists, including students (PLO 10);
- apply modern experimental and mathematical methods, digital technologies and specialized software to solve complex problems of forestry and hunting (PLO11).

STUDY COURSE STRUCTURE

Topic	Hours (lectures/practicals /independent)	Learning outcomes	Assignments	Grading
Module 1: Sustainable development				
Topic 1 What is Sustainable Forestry?	2/2/10	Trends and directions of forestry development in the world, Europe and Ukraine. The state of forestry on different continents according to scientific sources and statistical reporting of other countries for the period 2012-2021. General concepts, terminology and definitions of sustainable forestry. Trends in forest management development in Ukraine.	Submission of practical assignment	15
			Submission of independent assignments	5
Topic 2 The Sustainable Development Goals	2/2/10	General tendencies and directions of development of the countries of the world, with a particular focus on the countries of Europe and Ukraine. Prerequisites, theoretical principles and problems of sustainable development. Relevance, purpose and objectives for global goals of sustainable development. Defining the link between global sustainable development goals and forestry	Submission of practical assignment	15
			Submission of independent assignments	5
Topic 3 Goal 15: Life on land	2/2/10	The purpose and content of goal 15 "Life on land". Strategic principles, relevance and importance of	Submission of practical assignment	20
			Submission of	10

Topic	Hours (lectures/practicals /independent)	Learning outcomes	Assignments	Grading
		achieving the global goal of sustainable development 15 "Life on land". The role of forestry and forests on the way to achieving goal 15 "Life on land". The link between forestry and other land uses within the framework of the global goals of sustainable development	independent assignments	
Module test				30
Module 1 Total				100
Module 2: Sustainable forest management				
Topic 4 Criteria and indicators of sustainable forest management	2/2/12	Review of criteria and indicators of sustainable forest management. Critical analysis of sustainable forest management on environmental, economic and sociocultural pillars. Levels of use of criteria and indicators of sustainable forest management	Submission of practical assignment Submission of independent assignments	15 5
Topic 5 Criteria and indicators for the conservation and sustainable management of temperate and boreal forests	2/2/12	Review criteria and indicators for conservation and sustainable management of temperate and boreal forests. Critical analysis of the content of criteria and indicators. Comparison of the relevance of the criteria for the global level and forestry of Ukraine.	Submission of practical assignment Submission of independent assignments	20 5
Topic 6 Conservation and sustainable use of forests and forest	2/2/12	Problems of forest conservation at the global and regional levels. Sustainable	Submission of practical assignment	20

Topic	Hours (lectures/practicals /independent)	Learning outcomes	Assignments	Grading
biodiversity		use of forest resources. Status and tools to support biodiversity. Prerequisites for the Montreal Process. Strategic goals for biodiversity conservation.	Submission of independent assignments	5
Module test				30
Module 2 Total				100
Training activity Total				70
Exam				30
Study course Total				100

GRADING POLICY

<i>Deadline and Remedial Policy:</i>	Deadlines are set for all the assignments. Practical works submitted in violation of deadlines without a good reason will be penalized by lower grade. Re-takes of module tests in presence of good reasons (e.g.: sick leave) take place on lecturer's permission.
<i>Academic Integrity Policy:</i>	Cheating during tests and examinations is strictly forbidden (including using mobile phones and tablets). All written works are checked for plagiarism and are allowed to be defended when the total share of properly referenced text is up to 20%.
<i>Attendance Policy:</i>	Attendance is mandatory. For objective reasons (e.g.: sick leave, international internship) teaching can take place individually (online, under a warrant from the Institute's Director).

KNOWLEDGE GRADING SCALE

Rating of the applicant of higher education, points	Evaluation results on national exams, tests	
	exam	test
90-100	excellent	passed
74-89	good	
60-73	satisfactory	
0-59	unsatisfactory	not passed

Information sources:

1. [UN Sustainable Development Goals \(SDGs\)](#)
2. [Strategy of forestry reform in Ukraine](#)
3. [UN Sustainable Development Goals 1](#)
4. [UN Sustainable Development Goals 2](#)
5. [UN Development Programme - SDGs](#)
6. [Challenges in the forestry branch of Ukraine](#)
7. [Challenges related to forest resources in Ukraine](#)

8. [Current forest related issues](#)
9. [Forest Industry in the Time of War](#)
10. [Attempts of revenge in forestry reform](#)
11. [Goal 15 - Life on Land](#)
12. [FAO State of the World's Forests 2020 Report](#)
13. [FAO State of the World's Forests 2022 Report](#)
14. [Where Are We in Achieving SDG 15?](#)
15. [Eurostat article on SDG 15 status and dynamics \(2023\)](#)
16. [Eurostat Datasets on SDG 15](#)
17. [Our World in Data portal](#)
18. [2023 report on Sustainable Development Goals](#)
19. [Overview of pan-European criteria and quantitative indicators for sustainable forest management](#)
[State of Europe's Forests 2020](#)
20. [World Bank data for Ukraine](#)
21. [Комплексні статистичні публікації Державної служби статистики України](#)
22. [Економічна статистика на сайті Державної служби статистики України](#)
23. [News from Ukrainian Forests](#)
24. [Global Forest Resources Assessments webpage at FAO](#)
25. [Global Forest Resources Assessment](#)
26. [Joint Pan-European Data Collection on forests and sustainable management](#)
27. [Joint Pan-European dataset 2020](#)
28. [The updated Pan-European Indicators of Sustainable Forest Management](#)