

**NATIONAL UNIVERSITY of LIFE and
ENVIRONMENTAL SCIENCES**
Department of Botany, Dendrology and Forest Tree Breeding

dean of Plant Protection, Biotechnology and Ecology faculty



PROGRAM OF EDUCATIONAL PRACTICE

Speciality 202 Plant protection and quarantine
Study program Plant protection and quarantine
Faculty of Plant Protection, Biotechnology and Ecology
Developer Associate Professor, PhD in Biological Sciences A. Tertyshnyi

The content and organization of educational practice.

№	Theme	Hours
1	Excursion to the forest areas (Botanical garden of NULES).	5
2	Excursion to the field and meadow areas (Zhukiv island)	5
3	work in laboratory.	5
4	Excursion to the forest areas. (Konche- Zaspa forest)	5
5	Work in a laboratory.	5
6	Report generation, credit obtaining	
In total:		25

Educational practice of course “Botany” is held in spring and summer. It is the final step in exploring the theoretical rate, especially section morphology and systematization of plants, aims to consolidate the knowledge gained during the laboratory and practical classes and lectures. In addition to issues of morphology and systematization of plants during practice the students focus on the study of the environmental features of the most important representatives of forest cover and the relationship of plants and plant groups to environmental conditions, soil fertility, and the extent of the moisture and others.

The program of educational practice of botany provides: a study of forest grass cover composition on different categories of forest areas (under the tent of forest, on cleared areas, forest areas); collection, morphological analysis and determination of plants; book-mark of registration areas for determination of character of forest grass cover, determination with the help of plant-indicators of environmental terms; editing of herbarium by system of Armen L. Takhtajan. Educational practice is conducted in a laboratory excursion method by groups of 2–3 students. The conducting of practice according to a curriculum takes 25 hours.

Tasks of educational practice.

1. Studying of basic plant-indicators of different types of forest terms.
2. Fixing of program material in morphology and systematizations of plants.
3. Capturing a method and technique of herbarization of plants.
4. Capturing morphological analysis of plants and by method of their determination with the help of existing determinants.
5. Capturing geobotanical method of description of forest phytocoenoses.
6. Collecting and studying of plant-indicators of different types forest terms, of forest nurseries and forest cultures.

Method of conducting educational practice.

Educational practice begins with conducting of botanical excursions during which students study: different types of forest terms, the most important indicators of types of forest and their adjusted to the terms of environment and agricultural value; rare and vanishing types of local flora and measures are on their guard. For an output on an excursion the students must have a certain equipment, it is needed to have on a brigade: folder of herbarium with the complete set of newspapers, writing devices, magnifying glass, roulette or cord, forms of description of trial areas. During working on the collected material in a laboratory students have such tasks: to fasten the method of morphological analysis of plants, description of families, able to use a determinant and define collected plants.

For the period of three practice excursions it is conducted.

1. Excursion for the study of plants of forest cover of the coniferous forests and half-cleared areas.
2. Excursion for the study of plants of field and meadow areas and description of phytocenosis.
3. An excursion for the study of wild forest grass nurseries and forest cultures and bog plants.
4. An excursion for the study of herb to the experimental allotment.
5. An excursion to the Botanical garden for studying biodiversity of different natural aria of Ukraine.

Working plan of educational practice.

The first and the second day of practice.

Excursions are in the forest and to the field and meadow areas. Purpose of excursions: to familiarize with the floristic elements of the forest; the field and meadow to learn and to collect the herbarium of forest and meadow plant cover of the coniferous forests and; to learn the terms of life of plants on these territories and their adjustment to the sphere of dwelling. During excursions attention is on composition of forest vegetation, that unites plants of different systematic groups: lichens, mosses, horse-tails, ferns, gymnosperms, angiosperms; different vital forms: one- and long-term herbage, bushes.

The third day of practice.

The work in laboratory. Students bring the collected material, do the morphological analysis of most typical representatives of forest cover of the coniferous forests on one of every family, conduct determination of plants, design the clean labels of herbarium, fix up names of plants and plant characteristics.

The fourth day of practice.

An excursion in the forest. Purpose of excursion: study the character of forest grass cover of oak forests and half-cleared and cleared areas and forest cultures. Study and collection of herbarium of wild grass forest with the help of a teacher, making of geobotanical description of certain area of the forest and field and meadow areas are conducted, and the collected plants are herbarized. During an excursion attention applies on that floristic composition of oak and half-cleared areas which are very rich, consist mainly of megatrophs and mesotrophs, many-tier, have a difficult structure.

The fifth day of practice.

The work in laboratory. Students bring the collected material, do the morphological analysis of most typical representatives of forest cover of the coniferous forests on one of every family, conduct determination of plants, design the clean labels of herbarium, fix up names of plants and plant characteristics.

The sixth day practice.

Work is in a laboratory. Working of materials, collected during an excursion, equipping with modern amenities of herbarium, preparation to handing over of test.

Report on passing the practice.

On a test from educational practice students must present:

1. Diary of practice, where every day of work is fixed: a theme of excursions, collected plants, their biological and ecological descriptions.
2. Form of geobotanical description of trial area of the forest.
3. A list of the collected plants in an amount 120 different species, placed in a systematic order.
4. Collected and herbarized plants are designed according standards.

Absolute knowledge of the Ukrainian and Latin names of plants and families which they belong to, and also their economic and indicator value.

Head of practice

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