**CATALOGUE OF KNOWLEDGE**

**1. NAME OF THE SUBJECT**

**PRACTICAL EDUCATION: BIODIVERSITY**

**2. GENERAL OBJECTIVES**

The overall objectives of the course are:

• developing an analytical assessment of the principles of nature protection and spatial planning;

• developing a professional identity, professional responsibility and a positive attitude towards nature conservation and landscape;

• acquiring skills to apply the knowledge about nature protection in agriculture, forestry, hunting, fishing and protected areas;

• improvement of aesthetic personality criteria.

**3. THE SUBJECT SPECIFIC COMPETENCES**

In the course the student acquires the following competences in addition to the generic subject-specific competences:

• preparing technical proposals of measures for the protection of the environment and space

• participating in the drafting of national and international projects

• preparing technical proposals of measures for the protection of biodiversity components and measures for the protection of natural values,

• planning, management and water use ecoremediation for nature conservation and land use planning.

**4. OPERATIONAL OBJECTIVES**

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| **INFORMATIVE OBJECTIVES** | **FORMATIVE OBJECTIVES** |
| Student: |
| Expert basis of nature conservation and biodiversity protection measures in place |
| * knows the theoretical basics of ecology and conservation of natural values of the area;
* distinguishes between environmental protection and nature conservation;
* masters the methodology of drawing up proposals for the professional field of work;
* masters the basics of environmental protection, endangered species of living organisms and habitat types;
* knows the starting point, legislation, methodology and methods of preparation of expert bases for protection and maintenance measures;
* knows the ways of working in the preparation of studies on the environmental impact assessment;
* knows endangered animal and plant organisms and methods of their conservation and protection;
* knows the basic procedures of indigenous organisms growth;
* knows the rules and guidelines for rural development, agricultural and forestry activities;
* knows the different types of hazardous and undesirable alien organisms in habitats and identify them;
* masters ways to control exploitation of natural resources in the area;
* knowledge of nature and environmental legislation and regulations governing the scope of his work;
* knows the key ingredients for preparing management plans for protected areas;
* protection of habitats, natural values;
* knows different approaches to monitoring the quality evaluation of natural values;
* knows the importance of biomonitoring for environmental monitoring in terrestrial and aquatic ecosystems;
* describes the basic methods of biomonitoring of water, air and soil;
* knows the ways of preserving biodiversity;
* knows the legality and the elements of the project work;
* knows goals of spatial planning and knows how to identify ecological aspects of planning;
* knows the basic principles of ecoremediation;
* knows ecoremediation methods, their role and the benefits of protecting natural resources and space.
 | * collects data and professional basis and participates in urban planning;
* draws up programmess for the protection and conservation of rare and endangered native flora, fauna and their habitats;
* participates in education, maintenance of indigenous organisms, plants and animals in the area;
* implements measures for the protection and preservation of rare endangered species;
* participates in planning the sustainable use of natural resources in the area;
* recognises the typical representatives of the major groups of plants using identification keys;
* collects data on plant and animal species, their habitats and ecosystems;
* participates in the preparation and implementation of biomonitoring;
* highlights the importance of indicator species;
* notes disturbances in the ecosystem, resulting from various human activities;
* carries out the biomonitoring of air, water and soil, and presents a realistic assessment of the impact of environmental pollution on organisms;
* participates in implementing programmes for the protection of biodiversity;
* collects and evaluates information about the human presence in space;
* analyses the opportunities and proposes the introduction of new technologies and innovation;
* participates in the preparation of reports on environmental impacts;
* participates in the implementation of development projects of spatial planning and nature conservation;
* justifies the importance of natural and anthropogenic conditions in urban planning; (with the help of examples of good practice) ;
* includes ecoremediation for the protection, restoration and conservation of natural values and space;
* directs and manages the maintenance of ecoremediation objects in space;
* takes care of the design and operation of biological wastewater treatment plants;
* plans and implements measures for preventing of water pollution;
* participates in the procedures necessary for the possible introduction of genetically manipulated crops;
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**5. OBLIGATIONS OF STUDENTS AND SPECIAL FEATURES IN PERFORMANCE**

The total 220 hours of the student's work in the company amounts to 7 credits.

It is required that the presentation of the report on a practical training under the mentorship of the company and mentor at school is carried out.