**CATALOGUE OF KNOWLEDGE**

**1. PRACTICAL EDUCATION (PRE 1):**

**2. GENERAL OBJECTIVES:**

The overall objectives of practical education (PRE 1) are:

• obtaining practical skills for professional and general modules and courses,

• acquiring knowledge to be verified in practice,

• planning and organising work with specific equipment in landscaping and horticulture,

• organising students' own work and planning their practical training,

• preparing the practical scheme of the diploma work,

• preserving natural and cultural heritage in their work,

• using an appropriate method of communication in problem solving, organisation of work and implementation of individual tasks.

**3. THE SUBJECT SPECIFIC COMPETENCES:**

During the process of practical education students acquire generic competences as well as the following ones:

• organising and managing appropriate technology production,

• knowing how to use the information system,

• being able to implement promotional and advertising products and services,

• understanding and recognising the harmful effects of substances that pollute the environment,

• analysing natural and social phenomena, identifying and analysing adverse human impacts on the environment,

• selecting the most suitable activity of a horticultural company in a given environment,

• developing entrepreneurial behavior, creativity and flexibility in handling different market situations and environments,

• advantageous and effective using of modern tools, machines, appliances and other equipment,

• organising and carrying out activities in accordance with the rules of safety at work.

**4. OPERATIONAL OBJECTIVES**

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| **INFORMATIVE OBJECTIVES** | **FORMATIVE OBJECTIVES** |
| Horticultural TechnologyA student:* compares the different types of humus in the soil,
* identifies and assesses the importance of different types of soil animals,
* identifies and assesses the importance of physical, chemical and biological properties of soil
* justifies the criteria for the classification of soil,
* describes the different types of soil in Slovenia,
* looks for common characteristics of the types of soil in relation to the use and spatial planning,
* individually selects the measures for the maintenance of soil fertility,
* knows the shape and role of individual nutrients in soil and plants,
* assesses the need for nutrients and action in case of lack or overabundance of individual nutrients,
* knows modern methods for the determination of accurate and timely doses of fertilizers,
* compares the individual types of organic and mineral fertilizers and their usefulness,
* analyses the negative effects of excessive fertilization with manure on the environment,
* compares different ways of fertilization in alternative agriculture,
* identifies the economic importance of plant protection in horticulture,
* knows the group of pathogens,
* knows the symptoms on plants in horticulture
* knows diseases of ornamental plants, vegetables and fruit trees, and compares each group of pests on plants in horticulture,
* knows the biology of pests on ornamental plants, vegetables and fruit trees,
* understands the importance of biotechnological methods in plant protection,
* knows the legislation regarding the protection of plants,
* evaluates the characteristics of PPP in terms of safe use and the use of protective equipment when handling pesticides,
* recognises the devices and procedures of the PPP
* defines the properties, composition and form of PPP
* analyses the consequences of improper plant protection

Environment protectionA student:- lists the most important representatives of dangerous and noxious substances in the landscape, space and environment,- knows the characteristics of hazardous and noxious substances,- differs labels for hazardous and noxious substances,- explains the storage of harmful and hazardous substances,- knows the first aid measures when working with harmful and dangerous substances,- knows the legislation in the field of environmental protection,- knows how to determine the level of air pollution,- is aware of the adverse impact of waste water,- understands the role of horticultural, production, and its impact on water pollution,- identifies and clarifies the impact and consequences of soil contamination,- compares different methods of production of plants in horticulture with regard to soil degradation,-understand the consequences of the loss of biotic diversity in soil.Mechanization in landscaping and horticultureA student:- knows the regulations regarding the safe use of machinery,- defines operations in spatial planning with the use of equipment,- explains the effects of various interventions in the environment,- assesses the chances of vegetables and ornamental plants production development with the usage of machinery,- explains the maintenance of machinery. |  A student:- organises and designs the technology for cultivation of ornamental herbaceous, woody plants and vegetables,- measures the humus content of the soil,- organises and plans the production of different crops taking into account soil properties,- takes measures in cases of lack or proliferation of plant nutrients,- evaluates the specific methods and results of soil analysis,- organises and plans an appropriate manner of fertilization depending on the requirements of individual plants and the environment,- organises and plans the production of fertilization plan for individual horticultural plants,- selects the fertilizer according to the appropriate technology of cultivation of horticultural crops,- identifies the incidence of diseases and pests,- recognises physiological plant diseases in horticulture- identifies the most common diseases of ornamental plants, vegetables and fruit trees,- analyses ornamental plant, vegetables and fruit trees pests in different developmental stages,- recognises the damage caused by ornamental plants, vegetables and fruit trees pests, - notes the critical number of ornamental plants, vegetables and fruit trees pests, - complies with legislation regarding the protection of plants in his/her work,- uses labels for PPP- uses protective equipment for the application of PPP- selects a suitable method of applying pesticides on plants- chooses the appropriate device for the application of PPP,- selects a suitable composition for controlling diseases and pests- draws up a plan of treatment with the appropriate PPP for individual plants in horticulture,- takes care of appropriate professional plant protection,A student:- use hazardous and noxious substances used in horticulture,- determines the amount of nitrates in plants,- separates hazardous and noxious substances by their properties,- uses the instructions supplied with hazardous and noxious substances,- knows how to handle and and store harmful and dangerous substances safely - makes a list of air polluters in the environment, - makes a list of water polluters in the environment, - selects an appropriate technology that prevents soil degradation processes,- maintains biodiversity in the soil,- uses of fertilizer and pesticides in the cultivation of plants in a rationally,- protects the environment, landscape and space in the working environment and at homeA student:- prevents the improper use of machinery,- plans the improvement works in the field of machinery,- plans the spatial management with specific machinery,- coordinates the planning of production with specific machinery,- decides on the economic viability of the working process,- plans and controls production- determines the appropriate equipment to create and modify internal and external residential and business premises,- plans maintenance of tools, machinery and equipment. |

**5. OBLIGATIONS OF STUDENTS OR SPECIAL FEATURES IN PERFORMANCE**

Students' liabilities are as follows:

• completion of practical training to the extent of 800 hours,

• fulfillment of the PRE plan and writing PRE reports,

• presentation of the project or seminar papers within the PRE and a defense of a degree.