**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 Technology  A 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 protection  A 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 horticulture  A 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 home  A 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.