

Description of learning outcomes in relation to the characteristics of the second level of learning outcomes for qualifications at levels 6 and 7 of the Polish Qualifications Framework enabling to obtain engineering competences.

The name of the field of study: **Садоводство / Horticulture**

Level: **first degree, full-time studies**

Profile: **practical**

Symbol	Learning outcomes enabling to obtain engineering competences	A reference to the characteristics of the second level of learning outcomes for qualifications that allow to obtain engineering competences
<b>KNOWLEDGE</b> <b>The graduate knows and understands:</b>		
EngOGP_W01	a basic understanding of economics, law and social science adapted for the forms of activity in horticulture.	P6S_WK
EngOGP_W02	a basic knowledge of natural and economic factors determining horticultural production, as well as the form, functioning and development of rural areas.	P6S_WK
EngOGP_W03	basic technologies of horticultural production and the principles of adapting them to natural and economic conditions	P6S_WG
EngOGP_W04	principles of functioning and operation of equipment, facilities and technical systems utilised in horticulture	P6S_WG
EngOGP_W05	contemporary problems of horticultural production and technical assumptions of engineering tasks in this field	P6S_WG
EngOGP_W06	basic principles of creating, managing and functioning of horticultural enterprises and farms	PS6_WK
EngOGP_W07	principles of intellectual and industrial property protection, and copyright law, especially in relation to horticulture	PS6_WK
EngOGP_W08	basis of ergonomics and legal protection of work, health and safety regulations, hazards in gardener's working environment and methods of their limitation	PS6_WK
<b>SKILLS</b> <b>the graduate can:</b>		
EngOGP_U01	search, analyse, evaluate and apply the necessary information from various sources and databases in the field of horticulture and related sciences, create documents and presentations, apply advanced information and communication techniques, independently plan own learning and organize a teamwork	P6S_UW

EngOGP_U02	practically use knowledge in the field of intellectual and industrial property, assess the workplace in the aspect of ergonomics and occupational health and safety, use the available workplace hazard prevention methods in horticulture	P6S_UW
EngOGP_U03	apply microtechnical, microscopic and analytical methods in the identification and assessment of living organisms and their reproduction for the needs of horticulture	P6S_UW
EngOGP_U04	assess the physical, chemical and biological properties of soil, determine the richness of soil, substrates and plant nutritional status and the condition of horticultural crops in order to obtain high-quality horticultural produce while maintaining the principles of environmental protection and rational management	P6S_UW
EngOGP_U05	adapt the time, method and conditions of cultivation and care treatments to the species and the purpose of the horticultural crops yield	P6S_UW
EngOGP_U06	choose the cultivation techniques and methods and parameters of horticultural products storage to provide the longest high quality preservation	P6S_UW
EngOGP_U07	perform an assessment of the nursery material, budding and grafting of orchard plants	P6S_UW
EngOGP_U08	form and prune fruit trees and shrubs; regulate their fruiting and yield	P6S_UW
EngOGP_U09	choose varieties of plants for commercial, industrial, ecological and home orchards	P6S_UW
EngOGP_U10	diagnose diseases and pests of horticultural plants, identify agrofags, use beneficial organisms, assess the hazards and the extent of damage caused by agrofags and design a program to limit them to ensure high quality horticultural crops and consumer safety while maintaining biological balance	P6S_UW
EngOGP_U11	identify weeds and apply methods to regulate weed growth and protect crops against agrofags while maintaining the principles of sustainable use of biological diversity	P6S_UW
EngOGP_U12	select, apply and optimize basic techniques and technologies used in horticulture, including modern methods of breeding, reproduction, cultivation, fertilization and protection of horticultural plants as well as storing fruits, vegetables, decorative plants and nursery material	P6S_UW
EngOGP_U13	use studies and create recommendations for plant protection and fertilization, provide consultancy in the field of horticultural production in order to obtain high quality horticultural products as well as make decisions while maintaining the principles of	P6S_UW

	environmental protection and rational management	
EngOGP_U14	arrange and maintain green areas, and create plantings of various character and purpose	P6S_UW
EngOGP_U15	properly choose and use equipment, tools and machines for farming and gardening, for the care, protection, harvesting and storage of horticultural plants	P6S_UW
EngOGP_U16	to plan and perform a simple engineering or design task tailored to the field of study under the guidance of a tutor; correctly interpret the results and draw conclusions; indicate disadvantages and advantages of the adopted solution and collaborate with others in team work	P6S_UW P6S_UO
EngOGP_U17	adapt the directions and technologies of growing horticultural plants to local natural and economic conditions	P6S_UW
EngOGP_U18	assess the economic efficiency of a horticultural farm using basic methods of cost, income and profitability accounting and carry out economic, social and legal analysis of undertaken activities	P6S_UW