

Course Unit Descriptor

<b>Study Programme: AGRICULTURAL ENGINEERING AND INFORMATION TECHNOLOGIES</b>			
<b>Course Unit Title: <i>Biotechnical Systems in Vegetable Production</i></b>			
<b>Course Unit Code: 19.PTIO25</b>			
<b>Name of Lecturer(s): Ass. Prof. Ondrej Ponjičan, PhD</b>			
<b>Type and Level of Studies: UNDERGRADUATE ACADEMIC STUDIES</b>			
<b>Course Status (compulsory/elective): compulsory</b>			
<b>Semester (winter/summer): winter</b>			
<b>Language of instruction: sebian</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 6</b>			
<b>Prerequisites: none</b>			
<b>Course Aims:</b> Acquisition of theoretical and practical knowledge related to the application of machines, devices, equipment and materials in the production of vegetables in the open field and in a protected area, with the introduction and application of precision agriculture.			
<b>Learning Outcomes:</b> The knowledge should enable the correct selection and use of machines, devices, equipment and materials in the production of vegetables in the open field and in a protected area, with the introduction and application of precision agriculture with special emphasis on environmental protection.			
<b>Syllabus:</b> <i>Theory:</i> Importance of biotechnical systems in vegetables. Bank and bed forming machines. Soil disinfection and substrate production machines. Biotechnical systems for seedling production. Soil mulching machines and drip irrigation system design. Machines for vegetable sowing. Machines for planting seedlings, tubers and bulbs. Machines for covering of plants. Biotechnical systems of protected area: constructions, covering materials, systems for regulation of growing conditions. Semi-mechanized and mechanized harvesting machines. Machines and equipment for handling vegetables after harvest. Primary processing and storage of vegetables. <i>Practice:</i> Introduction to the purpose, basic parts, working principle, settings, maintenance during operation and safety measures at work of biotechnical systems and equipment according to the curriculum of the lecture. Preparation of project and seminar papers.			
<b>Required Reading:</b>			
<b>Weekly Contact Hours:</b>	<b>Lectures: 45</b>	<b>Practical work: 45</b>	
<b>Teaching Methods:</b> <i>Theoretical teaching:</i> verbal-textual and demonstrative illustrative methods. <i>Practical classes:</i> managing students' independent work, demonstrative illustrative methods, demonstration of machines in operation, calculation methods.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points

Active class participation		written exam	
Practical work	10	oral exam	50
Preliminary exam(s)	40	.....	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			