

Level: Bachelor				
Course title: Pedology - basics				
Status: elective				
ECTS: 6				
Requirements: none				
Learning objectives Students will be familiar with the definition of pedology, basic concepts and types of pedological processes.				
Learning outcomes After successfully completing this course, students will be familiar with the types of soils; understand and appreciate the relationships and interactions between soils and plant communities; have a basic understanding of how soils form and the patterns in which they occur on landscapes.				
Syllabus <i>Theoretical instruction</i> Soil and pedology (soil definition, soil system, soil as landscape system). Soil properties (physical: texture, specific weight, bulk density weight, porosity; chemical: humus content and composition, prevailing type of clay minerals, mineral potency of soil substrate, carbonates content, exchangeable soil reaction, cation exchange capacity, soil sorption complex, type and degree of soil degradation). General pedogenesis (basic mechanisms of pedogenesis) and special pedogenetic processes (weathering, humification, eluviation, iluviation, gleying and gley process, solonchak process, salinization). Soil classification (soil profile, diagnostic horizons, soil horizon features and nomenclature, soil classes, types and subtypes diagnostics). Environmental pedology (soil quality, physical processes influencing soil quality, risk substances in soils, farming and its influence on soil quality and biodiversity, soil anthropization). <i>Practical instruction</i> Field investigation; Soil profile description; Mapping of soils; Laboratory measurements of different soil properties.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 1	Other forms of teaching:	Student research:	