

Level: PhD		
Course Title: Remediation processes	Course code:	DZZS-705
Course status: Elective		
ECTS: 15		
Requirement: none		
Course objective: Training students to individually perform assessment and remediation of contaminated sites.		
The course outcome: After completing the course, students should know how to independently apply gained knowledge of the remediation processes for contaminated sites and remediation management processes; independently plan and carry out experiments and critically evaluate the results of monitoring remediation processes; independently select the best remediation technique.		
The course content: <i>Theoretical study:</i> Mechanisms and kinetics of biodegradation and biotransformation of specific pollutants. Processes in porous mediums during remediation: physical, chemical and biological processes of contaminated sites, distribution mechanisms of pollution, transport of nutrients and electron acceptors, respiration. Evaluation of contaminated sites and monitoring: hydro-geological characteristics of the site, aquifer characterization. Monitoring of natural remediation. Choosing the best remediation techniques. Remediation processes management. <i>Practical lessons:</i> Project design – Evaluation of selected sites and identifying the best remediation technique.		
Number of active teaching hours:	Lectures: 5 (75)	Research study work: 5 (75)