

<b>Subject name</b>	<b>Environmental Chemistry</b>	
<b>Subject code</b>	IS-ECH-7	
<b>Department</b>	Land Reclamation and Peat-Bogs Protection	
<b>Faculty</b>	Environmental Engineering and Land Surveying	
<b>Subject supervisor/Lecturer</b>	Marek Ryczek, Ph.D., Edyta Kruk, Mgr. Eng.	
<b>General information</b>	Teaching period	winter semester
	ECTS credit	6
	Lectures total	15
	Lab practical	30
<b>Objective and general description</b>		
<b>Lectures</b> <b>5 x 3 hours</b>	<p>Fundamentals of chemistry for Environmental chemistry.  Cycle of elements in environment.  Chemistry of atmosphere.  Chemistry of hydrosphere.  Chemistry of lithosphere.  Colloids in environment and their chemistry.  Chemistry of solid and liquid waste.</p>	
<b>Lab practicals</b> <b>5 x 3 hours</b>	<p>Model of environment contamination.  Definition of contamination and pollution. Hazardous substances, classification, properties and sources.  Processes of transport and diffusion of hazardous substances in air, water and soil.  Processes of decay of hazardous substances in environment.  Kinetics of reactions.  Adsorption in soil and sediment.  Chemical methods for contaminants removal from water and soil..  Analysis, monitoring and evaluation of environmental threat by hazardous substances.  Environmental risk assessment.  Indoor contamination.</p>	
<b>References</b>		