

Level: Bachelor				
Course title: Water pollution				
Status: elective				
ECTS: 5				
Requirements: none				
Learning objectives Train students to control the quality of natural and waste waters and define the chemical and ecological status of surface water and groundwater.				
Learning outcomes Understanding the chemical processes in natural waters. Master the necessary knowledge about the effects of pollutants on aquatic ecosystems, as well as the impact of pollutants on groundwater.				
Syllabus <i>Theoretical instruction</i> Studying the hydrological balance and fundamental indicators of the quality of natural waters. Water as an ecosystem. Factors affecting the quality of water in nature. Natural and anthropogenic pollution. Studying the processes that lead to water pollution. Biological pollutants. Thermal water pollution. Chemical pollutants in water (oil and derivatives, pesticides, surface-active substances, polychlorinated biphenyls, polycyclic aromatic hydrocarbons, metals, etc.). Radioactive pollutants in the water. Distribution and migration of pollutants in aquatic environments. <i>Practical instruction</i> Determination of physico-chemical, organic and inorganic, and biological parameters of water quality parameters and data interpretation. Determination of the solubility of gases, oxidation-reduction potential of water, distribution coefficients in the water / sediment for selected materials, based on the monitoring of natural waters. Calculation of the pressure for a given body of water.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research:	