

Level: Master				
Course title: Modern Techniques and Processes of Drinking Water Treatment				
Status: elective				
ECTS: 6				
Requirements: none				
Learning objectives To deepen student's knowledge of water treatment relating to modern techniques and processes, and enable students to independently select appropriate techniques and processes based on water quality knowledge.				
Learning outcomes The student is able to <ul style="list-style-type: none"> • describe the various modern processes and techniques that are used in water treatment • choose the appropriate technique based on the characteristics of the water and the required quality • independently plan laboratory experiments relating to modern water treatment 				
Syllabus <i>Theoretical instruction</i> The application of modern filtration techniques (two-medium and three-medium filtration). The processes of adsorption (activated carbon, granulated ferric hydroxide, etc.). Trends in coagulation and flocculation. Magnetic ion exchangers. Membrane filtration. Hybrid technology in water treatment. Modern techniques of disinfection and oxidation. Infiltration. <i>Practical instruction</i> Practical teaching follows theoretical lessons.				
Weekly teaching load				Other:
Lectures: 2 (30)	Exercises: AV 1 (15) LV 1 (15)	Other forms of teaching:	Student research:	