Level: Bachelor

Course title: Microbiology in environmental protection

Status: elective

ECTS: 7

Requirements: none

Learning objectives

Introducing students to the possibilities of application of microorganisms in quality control and environmental protection, particularly to the microbial-ecological principles in water protection and the rehabilitation of degraded aquatic ecosystems.

Learning outcomes

After completing this course the student is able to list the use of microorganisms in environmental protection and describe the microbial community of river systems, wastewater, drinking water and microbial bioremediation processes.

Syllabus

Theoretical instruction

Definition of microorganisms and their position in the living world. Specifics of biological structure and function. Microbial processes in aquatic ecosystems, water treatment, biological filtration, microbial interactions with pollutants, microorganisms as bioindicators and active agents in the field of environmental protection, legislation.

Practical instruction follows the program of theoretical instructions.

Weekly teaching load				Other:
Lectures: 3 (45)	Exercises: 3 (45)	Other forms of teaching: -	Student research: -	-