



## Course catalogue

### TTF-PB304 Technology of water and waste water

Programme	Food technology and biotechnology
Level	Bachelor's programme
Academic year	III year
Semester	Autumn Semester
ECTS credits	6 credits
Lecturers	Ass. Prof. Tatjana Blazhevskaja, PhD Associate Prof. Valentina Pavlova, PhD
Language	Macedonian
Objective	Choose water treatment technology based on its characteristics and the required quality of treated water. Explain and measure the basic characteristics of water in nature, drinking water and water for industry purposes
Content	Basic characteristics of water, circulation of water in nature, types of water in nature. Water hardness, alkalinity and water stability, disinfection, filtration on sand filters, coagulation and flocculation, removal of iron and manganese from water, decarbonisation with lime and acid, working with ion exchangers, regeneration of ion exchangers. Waste water treatment: division, pre-processing and primary treatment. Biological treatment of wastewater: removal of organic and inorganic constituents (carbon, nitrogen and phosphate). Disposal of sludge. Anaerobic removal of organic ingredients. Biofilm wastewater treatment systems.
Learning materials	Excerpts from the primary literature will be used during classes and published on the website.