CASE STUDY

PHYSICO-CHEMICAL PROCESSES FOR WATER TREATMENT

How can water be treated when its quality is not sufficient for safe use? In this practical programme, we will explore several basic principles of water treatment through simple laboratory experiments.

The activity will focus on processes such as filtration, coagulation and the removal of selected contaminants. We will investigate how individual treatment steps influence water quality, observe the formation and separation of particles during coagulation and discuss why visually clear water is not necessarily safe. The programme will also introduce the removal of trace contaminants, such as pharmaceuticals, and connect small-scale laboratory demonstrations with processes used in full-scale drinking water treatment.

The aim is to show how different treatment processes complement each other and how the choice of technology depends on the type of contamination present in the water.