## Level: master

**Course title:** Radioecology

Status: elective

**ECTS**: 6

Requirements: none

# Learning objectives

Students will learn the basic elements of Radioecology and sources of radioactivity in the environment, causes and consequences of radioactive pollution, as well as protection of the environment.

## Learning outcomes

Subject Radioecology should enable students to acquire basic knowledge, skills and abilities they need for solving difficult problems they could meet in practice. Getting familiar with these problems could help in better organization and efficiency for future radioecology action.

## **Syllabus**

Radionuclides in nature. Terrestrial, cosmogony and artificial radionuclides.

Alpha, beta and gamma emitters. Radionuclide transport through the ecosystem.

Accumulation in critical media and at critical locations. The biological effects of ionizing radiation. Basic dosimetric units. Radio-toxicity and annual radiation dose.

Radioactive waste and disposal of radioactive waste.

## Weekly teaching load

Other: Lectures: 3 Exercises: 1 Other forms of Student research: teaching: 1