Level: Master

Course title: Chemistry and Pollution Ecotoxicology

**Status**: elective

**ECTS**: 7

Requirements: none

# Learning objectives

Deepening student's knowledge acquired at the undergraduate level in the field of ecotoxicology of chemicals and ecotoxicological properties due to the presence of pollutants in the entire ecosystem and its biological components (biota).

## **Learning outcomes**

Students should be able to independently apply the mastered knowledge of chemical properties to the components of pollutants in conjunction with their ecotoxicity, enabling a better understanding of the fate of pollutants in the environment; to both qualitatively and quantitatively characterize major pollutants present in the environment by using modern analytical instrumental methods; independently interpret experimental results, and search the databases to find data on the toxicity of certain hazardous substances.

## **Syllabus**

#### Theoretical instruction

Studying the interactions of pollutants in natural systems, with special emphasis on the hemodynamics of pollutants, environmental toxicology, ecology and ecotoxicology of pollution. Introduction to ecotoxicology and chemical behaviour of certain groups of pollutants (deoxygenation substances, nutrients, pesticides, oil and hydrocarbons, PCBs and other synthetic organic compounds, metals and salts, atmospheric pollutants, thermal pollution substances, radionuclides and suspended solids and sludge). Ecotoxicity assessment of certain groups of pollutants and the use of the information obtained in the context of integrated environmental management.

### Practical instruction

Practical teaching follows theoretical lessons.

Weekly teaching load				Other:
Lectures:	Exercises:	Other forms of teaching:	Student research:	
2 (30)	LV 2 (30)	1 (15)		