Level: Specialist studies

Course title: Chromatographic methods in environmental analysis (advanced course)

**Status**: elective

**ECTS**: 5

Requirements: none

# Learning objectives

Broadening students' knowledge of chromatographic methods and their application in environmental analysis.

### **Learning outcomes**

Developed advanced and specialized analytical skills in chromatographic analysis of different environmental matrices. During the practical work, students will apply the acquired technical knowledge for independent chromatographic analysis, from the selection of appropriate technique to writing reports on the analysis.

## **Syllabus**

#### Theoretical instruction

Chromatographic analysis. Sample handling and preservation. Sample preparation for chromatographic analysis. Gas chromatography (choice of column chromatography, chromatographic conditions, the type of sample injection). Detectors in gas chromatography. Liquid chromatography. Detectors in liquid chromatography. Ion chromatography and its application in the analysis of environmental samples.

### Practical instruction

Experimental tasks from the major topics in the curriculum.

Weekly teaching load				Other:
Lectures:	Exercises:	Other forms of	Student research: -	-
2 (30)	2 (30)	teaching: -		