**Level**: Specialist studies

Course title: Solid waste (advanced course)

**Status**: elective

**ECTS**: 5

Requirements: none Learning objectives

# Improve knowledge of the techniques and technologies of waste treatment and integrated waste management, in order to utilize waste as a raw material for recycling or for energy purposes.

## **Learning outcomes**

Acquire specialized knowledge about the nature of waste, utilization of waste as a source of raw materials or energy, and the importance of recycling and disposal at the landfill.

## **Syllabus**

### Theoretical instruction

Solid waste as a global problem. Municipal and industrial waste, environmental pollution problems. Exploiting the value of material and energy waste. Analysis of the 3R principles of waste management, which has three components: waste reduction, recycling and reusing. Introducing the 4R and 3E concept of waste. Studying the process of incineration, gasification, pyrolysis, composting and waste deposits and process control in closed landfills.

### Practical instruction

Writing a seminar paper reviewing the current literature.

Weekly teaching load				Other:
Lectures: 30	Exercises:	Other forms of	Student research:	
		teaching: 30		