Level: Bachelor

Course title: Soil degradation

Status: elective

ECTS: 6

Requirements: none

Learning objectives

Introduction to the basic characteristics of soil. Understanding the basic causes of soil degradation and enabling students to determine the extent of soil degradation.

Learning outcomes

Students should be able to define and specify the environmental problems and the effects of soil pollution; define and explain the stages of damage to the soil, apply their knowledge and explain the chemical, physical and biological processes of pollutants in soil.

Syllabus

Soil as part of the environment. Morphological, physical and chemical properties. Concept, causes, types and sources of pollution. Threats to land (ways to compromise, waste, erosion). The loss and destruction of fertile lands. Phases of soil degradation. Land degradation: water erosion and wind damage in situ (chemical, physical and biological processes). Impact of agricultural production on the land. Negative environmental consequences of the use of chemicals in crop production. Chemicals use of land. Soil pollution with heavy metals and radionuclides. Petroleum industry and land. Urban-industrial pollutants. Soil compaction. The effect of irrigation on the land. Influence of spreading road salt on the soil.

Practical instruction

Practical instruction follows the theoretical one.

Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research:	