

society

- 2 Explain chemical forms of occurrence and importance on the physico-chemical behaviour and ecotoxicity of metals and metalloids in the environment
- 3 Understand the meaning of background concentrations and the reasoning behind derivation of legal environmental standards
- 4 Depict interactions between metals and plants and the active role of plants in establishing homeostasis
- 5 Understand mechanisms determining bioavailability and ecotoxicity of metals and compute bioavailability based environmental risk and environmental criteria
- 6 Select and apply suitable remediation and containment approaches for metal contaminated soils, sediments and water
- 7 Have insight in the potential negative effects of high concentrations of metals and metalloids on the environment and on humans

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Lecture, Practical, Peer teaching

Extra information on the teaching methods

Lecture: Lecture also includes guest lecturers from outside speakers (about 4 hrs).

Group Work and peer teaching: Students prepare a case related to phytoremediation and present it to the group.

Practical: Transfer of contamination from soil to plant is experimentally assessed by small groups of students. Soil and plant samples are collected on the field and analysed in the lab. The data are evaluated and discussed in a report of about 10 pages.

Study material

Type: Slides

Name: Slides

Indicative price: Free or paid by faculty

Optional: no

Type: Handouts

Name: Handouts

Indicative price: Free or paid by faculty

Optional: no

Type: Lab Material

Name: Alcohol Felt Tip Pen

Indicative price: € 10

Optional: no

References

-

Course content-related study coaching

Professors and staff members of the department are available (upon appointment).

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with open-ended questions

Examination methods in case of permanent assessment

Peer and/or self assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

Continuous assessment:

Group work and peer teaching: evaluation based on papers, presentation and discussion.

Practical: evaluation based on report of laboratory activities

Calculation of the examination mark

Continuous assessment: 5/20

End-of-term assessment: 15/20

Students who eschew continuous assessment may be failed by the examiner. In this case, a score of at most 9/20 will be assigned.