**III.2.16 SOIL TREATMENT**

**A. Course description**

**1. Credit points: 2 ECTS**

**2. Time commitment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Items | Lecture | Tutorial/  Exercise | Practice/  Assignment | Lab-work | Total |
| No. of hours | 11 | 3 | 6 | 0 | 20 |

**3. Prerequisites**

**4. Recommended background knowledge**

**5. Subject description**

**6. Objectives & Outcome**

Students should be able to understand the complex composition of soil as background for different bio­logical, chemical and physical reaction processes in soil with pollutants and for removal of contaminations. They should have knowledge about main remediation technologies. Additionally, students should learn in “touchable” manner aspects of impact of different soil milieu on transport and absorption of pollutants by two selected practical units.

**7. Assessment/ Evaluation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Component | Attendance | Exercises | Practical | Reports | Midterm | Final |
| Percentage % | 05 | 20 | 25 | 0 | 0 | 50 |

**8. Prescribed Textbook(s):** N/A

**B. Course content**

Introduction to the Lecture

Introduction into Soil Treatment

Soil: Types and Components

Pollution Distribution in different Soils

In-situ Treatment Methods (e.g. Natural Attenuation)

Ex-situ Treatment Methods ( mechan., chem.., thermal and biolog. methods)

Summary to the Lecture

**C. Reference Literature**

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| [1]. + D.M. Hamby: Site remediation techniques supporting environmental restoration activities: a review (http://web.engr.oregonstate.edu/~hambydm/papers/remedrev.pdf) |
| [2]. <http://lqma.ifas.ufl.edu/SWS6262/Handout/Gen-ref.pdf> |