

# **Introduction into Environmental Technologies**

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**Subject code:** IET

**Academic year:** 1

**Lectures:** 15

**Tutorials and seminars:** 15

**ECTS:** 4

**Aims of the subject:**

**Subject content:**

*a) Theoretical part:*

- changes in the environment as a consequence of human activity,
- identification of most common factors causing changes,
- the main sources of such factors,
- physical solutions,
- physical-chemical solutions,
- biological solutions,
- multi-purpose solutions,
- fundamental principles of the functioning of various environmental technologies,
- ecological-economic estimations regarding the use of different technologies,
- legal-administrative frameworks,
- European directives and guidelines, and
- the latest achievements in the field of environmental technologies.

*b) Field work*

- a visit to various technological procedures in industries,
- a visit to technologies in public utilities,
- a visit to ecosystem technologies in practice,
- a visit to various unsolved problems in the environment.

*c) Seminar work*

Based on theoretical and practical knowledge the student chooses themselves or by the help of their mentor a seminar paper which should have an innovative and practical application.

**Teaching and learning methods:**

lectures, field work - visits, seminar work

**Study obligations:**

Oral / written exam, preliminary exam, seminar work, diaries, practical tasks or products, projects, solving real problems, solving outstanding tasks / problems:

Compulsory presence in field work (visits) and preparation of seminar paper which is also a prerequisite for taking the final written exam

## Literature

1. Vrhovšek, D., Vovk Korže A., *Ekoremediacije (Eco-remediation)*. Maribor: Filozofska fakulteta, Mednarodni center za ekoremediacije; Ljubljana: Limnos, 2007.
2. Okoljske tehnologije, kakšna znanja in tehnologijo pričakujejo uporabniki (*Environmental technologies, what knowledge and technology are expected by consumers*): (Booklet from a conference)  
IMPRESUM, Podgorica pri Ljubljani  
Slovenski ekološki grozd: Esotech d.d., 2003
3. Razinger, J., Ekoremediacije : Sredstvo za doseganje okoljskih ciljev in trajnostnega razvoja Slovenije (*A Means of Achieving Environmental Objectives and Sustainable Development of Slovenia*): zbornik (*scientific papers collection*) Ljubljana. 2008., založba KATR.
4. Vrhovšek, D., Vovk Korže, A., Lovka, M., Kryštufek, B., Sovinc, A., Bertok, M., Vrhovšek, M., Kovač, M., 2008. Ekoremediacije kanaliziranih vodotokov (*Eco-remediation of canalised watercourses*) Ljubljana. Limnos; Maribor: Filozofska fakulteta, Mednarodni center za ekoremediacije (International Eco-remediation Centre).
5. Schnoor, J. L., 1997: Phytoremediation, GWRTAC, Pittsburg
6. Panjan, J. 2000: Osnove čiščenja odpadnih voda: študijsko gradivo (*Study material: Fundamental of waste water treatment*) Ljubljana. FGG Inštitut za zdravstveno hidrotehniko.
7. Zbornik referatov: 2. Mednarodna konferenca; Ekoremediacije v državah Zahodnega Balkana in Osrednji Evropi za izboljšanje kvalitete življenja; 2008 (*International Conference: Eco-remediation in West Balkan and Central European countries to improve life quality*)