

# **Environmental technologies (Cvetka Ribarič Lasnik, Ph.D., Assist. Prof.)**

**Subjects code:** ET

**Year of Study:** 1.

**Lectures:** 50

**Exercises:** 50

**ECTS:** 9

## **Contents subjects**

- Understanding of environmental changes and consequences (changes of the environment in time and place/ Effects on the environment due on account of human use and consumption of energy resources, land use, water consumption and the use of atmosphere/ sustainable environmental future: possibilities and limits)
- Definition of environmental technologies and the basis for their use (cleaning technologies, clean (integrated) technologies / new technologies and processes based on new material s, energy efficiency and alternative energy sources / environmental law)
- Ecological application to achieve environmental sustenance on the level of an individual, population and society (ecoremediation, restoring habitats, preservation of endangered species, pest treatment, management of the use of renewable energy sources / benefits of ecosystem services and ecosystem health)
- Technologies of purifying polluted resources based on biological systems (environmental biotechnology / phytoremediation – phytotechnologies: pollution characterisation and the risk estimation, biological processes, presentation of technological solutions, selection and use of adequate technologies, programme execution of control measurements, key planning principles, limits or restrictions of technological solutions)
- Energy and environment (the world stock of energy and its consumption / environmental effects of use, delivery and consumption of fossil fuels / alternatives to fossil fuels – son power, wind power, hydro power, biomass, geothermal and nuclear power – and their environmental effects / hydrogen as energy source / sustainable low-carbon future)
- Treatment of various aspects of sustenance / durability of technologies from various industrial sectors in cases from practice (discussion of the total lifecycle to present environmental, ecological and social influences)