

The European School for brownfields redevelopment VSB-Technical University of Ostrava Master course

Aim of studies:

The field of study is designed as interdisciplinary. It is based on a combination of natural, economic and construction - engineering sciences, including the professional disciplines. The study is intended on producing graduates – experts - oriented on a complex care of environment in the industrially influenced areas (including agriculture areas and military buildings). The main aim of the study is to prepare graduates to manage project and work activities in the field of restoration and development of abandoned industrial areas – brownfields. This is a study preparing an engineer who is able to solve problems associated with understanding, analysis, synthesis, evaluation, application re-use and solving problems of integration into the abandoned areas urbanized landscape system, and restoration of functions after industrial elements in the landscape.

They gain presumption to an professional activities in different sections such as:

- Landscape and nature conservation, their components and functions
- Restoration of functions of landscape segments
- Environmental assessment of brownfields
- Civil engineering and technical assessment
- Economical and socio-economical assessment
- Remediation and regeneration of areas
- Consultancy and Expert activities
- Environmental protection and design

Teaching and education has its base in scientific disciplines such as mathematic, physics and chemistry. Study plan is compiled from basic compulsory subjects: Selected topics in mathematics, Selected topics in physics, Statistics in the environment and expertise compulsory subjects: Applied Ecology, Environmental geochemistry, Engineering Geology, Contaminants hydrogeology, Greenery setting and management, Regeneration and reclamation of Brownfields, Municipal development, Urban planning, Brownfield management, Industrial architecture, Computer practice (for GIS, CAD and databases), Information systems at landscape

cultivation, Modelling of landscape management, Remediation and risks in the restoration of Brownfields, Socio-economical and economical tools for Brownfields regeneration, Investment processes and Brownfields regeneration, EU legislation in the environment and more.

Characteristics of the basic subject:

The basic subject for the master course is *Brownfield management*. The aim of the subject is to teach the students how to work with problems of brownfields regeneration. They should learn to perceive the whole process as a complicated set of numerous inputs and conditions that are typical for areas of the brownfields. With respect to the scope of the whole branch an emphasis will be put on so-called industrial brownfields, however the students will be also familiarized with other types of the above-mentioned areas. The students should learn how to evaluate the regeneration process from the point of view of various interest groups no matter whether they are from previous or future owners, municipal authority's representatives or citizens as well. Finally the students will play the strategic game the goal of which is to verify correct understanding of all problems connected with the process of regeneration in the model environment.

Addressees/ recipients / participants:

Studying for:

- bachelor graduates of all Czech universities (taught in Czech)
- bachelor graduates of all Universities within the European Union (taught in English).

Obtained qualifications and additional certifications:

Master Diploma of The European School for brownfields redevelopment

Lecturers:

- Lecturers from VSB – Technical Univeristy of Ostrava
- Lecturers from other Universities in the Czech republic and Europe

Substantive coordinator / director of studies:

Doc. Ing. Barbara Stalmachová, CSc.