

Brownfields Technical Redevelopment

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Faculty	Faculty of Mining and Geology
Type of study	Follow-up Master
Language of instruction	English
Code of the programme	N0724A290008
Title of the programme	Brownfields Technical Redevelopment
Regular period of the study	2 years
Coordinating department	Department of Environmental Engineering
Coordinator	doc. Ing. Barbara Stalmachová, CSc.
Key words	Industrial Architecture, Reclamation and Regeneration, Industrial Heritage, Brownfield management, Establishment and Maintenance of Greenery

About study programme

Abandoned areas of factories, mines, entire urban areas - brownfields are a pan-European problem in cities. Are you a creative bachelor's degree graduate who wants to have managerial skills and at the same time is interested in environmental protection and the landscape? Study the follow-up master's degree in Technical redevelopment of brownfields, study the field that will prepare you to change the world around you. You will learn to work with graphic programs for plans and projects for the restoration of abandoned areas and buildings, you will creatively solve problems with brownfields. You will participate in solving projects for the restoration of abandoned areas, you will gain knowledge and skills that will make you a brownfield manager - an expert for architects' offices, state administration, for developers and for the business sphere.

Graduate's employment

Graduates of the program will receive the title of Ing., they can be used in the positions of managers and technologists in companies focused on the regeneration of abandoned post-mining and industrial buildings, landscapes and territories, in the positions of experts and managers in state administration and self-government, building authorities, urban centres, as experts in restoration and reuse of abandoned areas will find application in industrial and agricultural enterprises, in design and business entities, in research and in other social activities.

They can also teach at vocational secondary schools and universities. Graduates will be fully prepared for doctoral studies.

Brownfield managers are gradually being created in the state and public administration of towns and municipalities, and graduates of the study programme will be ready to work in the positions of these specialists and experts.

Overview of job positions:

1. Brownfield manager and technologist in companies focused on the regeneration of abandoned industrial buildings, landscapes and territories,
2. Specialist and manager for remediation and reclamation of the landscape, for the area of restoration and reuse of abandoned areas in state administration and self-government,
3. Specialist in the field of restoration and reuse of abandoned areas in building offices, urban centres, design offices and implementation companies,
4. Technical specialist for remediation and reclamation
5. Technician - specialist for monument care with a focus on industrial heritage.

Study aims

The aim of the programme is to prepare graduates for management, design, implementation and operational activities in the field of restoration and development of abandoned spaces in the industrial landscape - brownfields of all types. Graduates - brownfield managers - will be experts and generalists who can evaluate the building or area for reuse, prepare a restoration plan, put together a team of specialists, manage this team and lead to the ultimate goal of brownfield reuse. Graduates will gain the prerequisites for activities in the areas of management, technical and economic contexts, remediation and regeneration procedures and technologies, consulting - expert activities in the field of reuse of industrial and post-mining landscapes, solutions for the restoration of industrial and other types of abandoned areas - brownfields.

Graduate's knowledge

Graduates of the master's degree - brownfield managers - will be equipped with comprehensive knowledge in the field of brownfields reuse in urban areas and in the open landscape of post-industrial and post-mining landscapes. Graduates will be able to synthetically use knowledge from individual disciplines focused on the care of the seat, landscape and landscape elements, and thus solve problems related to the revitalization and reuse of abandoned and unused areas in countries affected by mining and industrial activities. They will be able not only to use the current state of knowledge, but to solve research problems and thus contribute to the further development of knowledge, as mitigating the consequences of industrial activity is based on a technical approach to the site, but is related to financial, construction, geoscience, economic and legal issues.

Graduate's skills

The main task for the brownfield manager is to create opportunities, to plan and to manage brownfield regeneration processes. The brownfield manager is responsible for involving entities - experts and specialists - in the issue and marketing activities. The extended area of responsibility of the brownfield manager requires a high ability of coordination and communication. The prerequisite is basic knowledge and skills in a wide range of fields. An open attitude to unconventional and innovative approaches also characterizes visionary and holistic approaches combined with managerial function.

Graduate's general competence

The basic professional competencies required of a brownfield manager are not only technical. Crucial to this position is the ability to think conceptually, the prerequisites for leadership, the ability to reach agreement, as well as the ability to meet the requirements for the restoration and reuse of buildings and areas. Professional competencies are directed to the basic areas of management, communication, planning, legal and administrative aspects. The graduate must be capable of lifelong learning related to the development of knowledge in fields and disciplines related to the renewal of the use of brownfields.