



Technical University Košice

Institute of Montannistical Sciences and Environment protected



 FACULTY OF MINING, ECOLOGY, PROCESS CONTROL AND GEOTECHNOLOGY



Univ. Prof. Ing. Viliam Bauer, CSc.

European Geotechnical and Environmental Study

St. Peterburg, European Forum 2007



European Geotechnical and Environmental Study

The development of the European educational module

“European Geotechnical and Environmental Course”
(EGEC)

Is considered as a component within a vertical and horizontal branched educational net in the sector mining/applied geosciences.



European Geotechnical and Environmental Study

Participating Universities from Europe



Berlin

Freiberg

Kosice

Miskolc

Wroclaw

The following five universities from four European countries take part in the development and execution of the “European Geotechnical and Environmental Course” (EGEC)

TU Berlin

Univ. Prof. Dr.-Ing. Helmut Wolff
Institute of Applied Geosciences

HEAD COORDINATOR EGEC

TU Kosice

Univ. Prof. Dr.-Ing. Viliam Bauer
Department of Mining and Geotechnics

**EGEC COORDINATOR ON FACULTY
BERG**



Federation of European Mineral Program (FEMP)

INTRODUCTION

Two another's modules of similar structure are
Under FEMP :

- *European Mining Course (EMC)*
- *European Mineral Engineering Course (EMEC)*

The **Federation of European Mineral
Programs**

Was established in Delft, 1999



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The Board of directors of the Federation includes professors and one delegate of the major European mining & tunnelling companies.

In total 25 companies are now member of FEMP.



The Federation is the formal contact between Industry and the European universities.



EGEC Program Description

The aim of the project is the development of the fourth common academic year within the framework of existing engineering graduate courses of studies at the respective five partner universities.

The students choose a study program at the professionally high level, practise the teamwork by means of joint studying during the fourth academic year and do the required examinations at the respective five partner universities.



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Structure of the program of EGEC

The students complete the first three academic years at their home university and get sound fundamental training and basic specialized education in the field of natural, geo- and engineering sciences.

The participants from the partner universities study in one group professionally specialized subjects during the fourth academic year for about 6 weeks at each of the universities involved.



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The EGEC requires the basic fundamental engineering education and can be integrated in a course of studies, which is completed with the graduate engineer or Master of Science (MSc) degree.

One academic year is available for the EGEC, which comprises the lecture period of 2 terms, i.e. total eight to ten months.

Each of the five partners undertakes about 130 lecturing units. This assumes 2 terms per academic year with 16 term weeks and 20 lecturing units week per week without preparatory work/rework and without tutorials. This is translated into 12 ECTS per partner university and in total 60 ECTS.



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The schedule of program EGEC

	Berlin	Freiberg	Wroclaw	Kosice	Miskolc
Sep 05	*11.09.05 / 12.09.05 Course begins				
	1.				
Oct. 05					
	22.10.05 departure				
		*22.10.05 / 24.10.05 Course begins			
Nov 05		2.			
		03.12.05 departure			
Dec. 05			*03.12.05 / 05.12.05 Course begins / 22.12. last course-day before break		
Christmas					
Jan 06			*02.01.2006 / 03.01.06 course begins		
			3.		
			28.01.05 departure		
Feb 06				*28.01.06 / 30.01.06 Course begins	
				4.	
Mart 06				08.03.06 departure	*08.03.06 / 9.03.06 course begins
					5.
					13.04.06 final meeting - after it - departure
Apr 06					

Time of lectures

Station



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Admission to the EGEC-course

The language of instruction within the EGEC will be English.
The lecture material should be offered in English.

The EGEC is primarily organised for engineering students from the five partner universities with a basic knowledge in engineering and applied geosciences.

The entrance qualification is a successful study of six semester of a nine to ten semester engineering course or a Bachelor or an equivalent level education in mining, geotechnique, applied geosciences or other matters.



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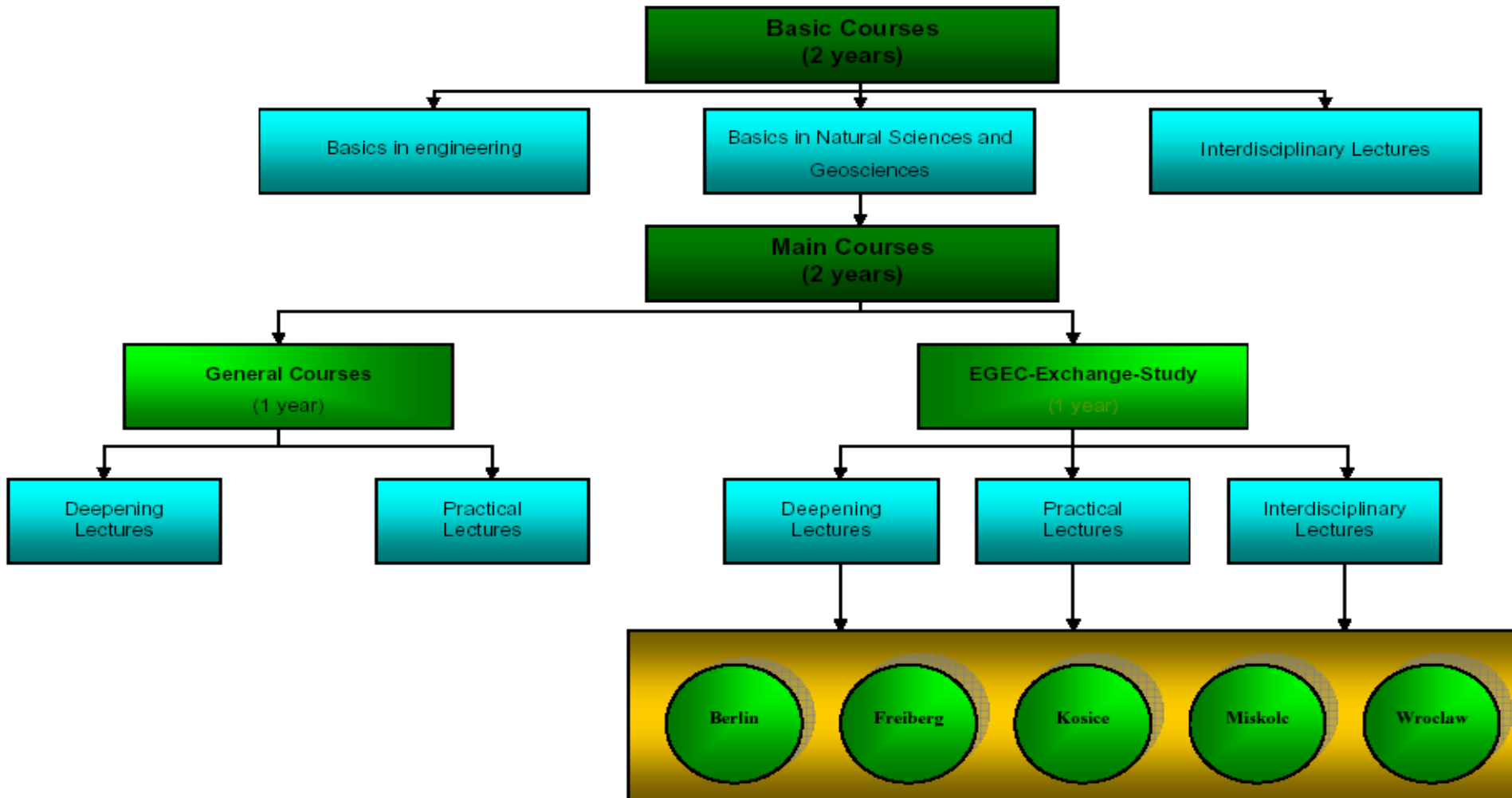
The complete structure of the course of studies

	TU Berlin	Bergakademie TU Freiberg	TU Kosice	TU Wroclaw	UNI Miskolc
Module 1	Hydrogeology & Modelling Of Groundwater Flow & Contaminant Transport → Tröger 4 ECTS	HSE & Underground Practice → Buhrow 5 ECTS	Underground Construction & Geotechnical Sytems → Bauer 6 ECTS	Theory & Practice In Rock Mechanics → Bauer, Pytel 5 ECTS	Environmental Geology & Environmental Geophysics → Foldessy , Dobroka 5 ECTS
Module 2	Engineering Geology → Tiedemann 4 ECTS	Computer Aided Mine Planning & Mine Site Rehabilitation → Drebenstedt 5 ECTS	Earth Resources & Alternativ Sources Energy → Rybar 6 ECTS	Mineral Processing → Drzymala 3 ECTS	Environmental Risk Assessment → Madarasz 3 ECTS
Module 3	Environmental Geochemistry & Analysis → Matheis 4 ECTS	Special Civil Engineering (Underground Construction) → Dahlhaus 2 ECTS	----	Economics & Financial Analysis In The Mining Industry → Paszkowska 4 ECTS	Bioprocessing Of Contaminated Soil, Air & Waste Water → Bokanyi 4 ECTS
total ECTS	12	12	12	12	12
candidates	From each participants University				



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The scheme specialized lecturing units



Technical University Košice

Faculty of Mining, Ecology, Process Control and Geotechnologies

Institute of Geo – Environment Technologies Department of Mining and Geotechnics

Fields of research :

Its research activities focus on

- development and construction of a prototype to determine rock-qualities under high pressure and temperature
- thermodynamical, hydrodynamical and rheological analysis of processes in layers with grain substances

**Institute of Geo – Environment Technologies
Department of Mining and Geotechnics**

Present State Research Works :

**Investigation of the Process of Flooding ore Mines and the
Evaluation of it's Effects on the Environment**

**Investigation of the Process of Depth storing Radioactive Waste
and the Evaluation of Effects the Multibarriere Protecting
System of storing on the Environment**

**Investigation of the Risk Analysis by Safety and Information's
Systems in Tunneling**

THANK YOU FOR YOUR ATTENTION

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Faculty BERG , Institute of Geo-Environment**

Department of Mining and Geotechnics.

Head of Department

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