

# **UNIVERSITY OF PANNONIA**

## COURSE DATASHEET

Semester: 2016/17/1

Course: Soil- and Groundwater Protection

Code: VEMKKVB112T

Responsible department: Department of Environmental Engineering

Department code: MKKV

Responsible instructor: Dr. Erzsébet Horváth

## Course objectives:

knowledge in remediation technologies

#### **Course content:**

1. Determinating parameters of migration of pollution in the soil; 2. Different water soluble and/or mixing pollutions in the soil and ground water; 3. Non-soluble pollutants 4. Reactions and degradation processes of pollutants in the soil and ground water; 5. Planning excercises of soil and groundwater protection for landfills I. 6. Planning excercises of soil and groundwater protection for landfills II. 7. Protection of ground- and drinking water 8. Sizing of protecting area; 9. Exploration of polluted area I.; 10. Exploration of polluted area II.; 11. Analysis of inorganic pollutions; 12. Analysis of organic pollutions; 13. Remediations, technologies; 14. Test 15. International experiences of remediated areas;

### Requirements, evaluation and grading:

According to the requirements of fulfillment.

#### Required and recommended readings:

Hydrocarbon Contaminated Soils and Groundwater.: Calabrese, E. J., Kostecki, P. T., Lewis Publishers, 1992. ? Bear, J., Verrujit, A.: Modelling Groundwater Flow and Pollution, D. Reidel Publishing Co., 1987.