



## SUBJECT DATASHEET

<b>Semester:</b>	2010/11/2
<b>Subject:</b>	Advanced environmental analytical chemistry
<b>Code:</b>	VEMLFTM214K
<b>Responsible department:</b>	Department of Earth and Environmental Sciences
<b>Responsible department code:</b>	MKFT
<b>Responsible lecturer:</b>	dr. Gyula Kiss

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### Educational objectives:

Overview of methods suitable for the analysis of complex environmental samples covering all phases from sampling to evaluation of the results. The course will give the students the ability to i.) select the appropriate analytical methodology to solve a particular problem ii.) interpret the results iii.) draw conclusions

### Detailed content of the subject:

- Characteristics of environmental analytical chemistry
- Sampling strategies
- Conservation, transportation and storage of environmental samples.
- Physical and physico-chemical properties of soil and sediment samples
- Sample preparation (digestion, extraction, clean-up, preconcentration, derivatization)
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### Requirements:

Laboratory practice: participation is mandatory. Lectures: oral examination during the end-of-semester test period. Grading is based on the oral exam.

### Required and suggested references:

Fifield, F.W., Haines, P.J.: Environmental Analytical Chemistry, Blackie Academic and Professional, Glasgow. 1995

Manahan, S.E.: Environmental Chemistry, CRC Press, 2005

Quinby-Hunt, MS; McLaughlin, RD; Quintanilha, AT: Instrumentation for Environmental Monitoring, Volume 2: Water, John Wiley and Sons, New York NY. 1986. 982 p. Edited by A. E. Greenberg and G. A. Morton.