



SUBJECT DATASHEET

Semester:	2009/10/1
Subject:	Geo-information System and Modeling
Code:	VEMLKVM453T
Responsible department:	Department of Environmental Engineering
Responsible department code:	MKKV
Responsible lecturer:	Viola Somogyi

Educational objectives:

To make acquainted the students with the up-to-date geoinformation systems, their possible utilisation in environmental protection. Application of GIS and environmental modelling softwares.

Detailed content of the subject:

1. How to build up models, analogy of GIS and EMS.
2. Integration of GIS and EMS, special development directives. GIS and database systems integration and build up.
3. Geodata bases. Spatial analysis and modelling.
4. Hierarchy of GIS, mobil GIS and desktop GIS.
5. Maps on the Internet. Map servers, static and dynamic solutions. Database engines.
6. Practical application in GIS and EMS.
7. The aim: to make a practical group work in environmental modelling to belong to an industrial or contaminated site. Spatial analysis of the modelling results in GIS.
8. Part of the exercise: data input, to make the base map of the area. Environmental modelling, integration of the results in GIS, Spatial analysis. Presentation of the group works.

Requirements:

Successful paper exam at the end of the semester.

Required and suggested references:

- Detrekői Á. - Szabó Gy.: Bevezetés a térinformatikába, Nemzeti Tankönyvkiadó, 1995.
Magyar I.: Térinformatika környezeti menedzsereknek, Egyetemi jegyzet, A Veszprémi Egyetem posztgraduális környezeti menedzser képzésére, PHARE 402.
Magyar I.: Térinformatikai rendszerek alkalmazása a környezetvédelemben, Egyetemi jegyzet, TEMPUS S-JEP 09692-95,
William J. Douglas: Environmental GIS Applications to Industrial facilities, LEWIS PUBLISHERS