



SUBJECT DATASHEET

Semester:	2009/10/2
Subject:	Applied Geoinformations System
Code:	VEMKKVA232G
Responsible department:	Department of Environmental Engineering
Responsible department code:	MKKV
Responsible lecturer:	Imre Magyar

Educational objectives:

To extend the knowledge of students in GIS and application in environmental protection

Detailed content of the subject:

1. Application of GIS in resource management, urban planning, demography, decision making and in environmental protection 2. Computers, softwares (Arc/Info, Arc/View, Idrisi, Microstation, Ilwis, Erdas, Mapinfo, Grass). PC és UNIX environment similarity and difference in hardware and software. 3. GIS databases, conceptions. Database management systems. 4. Data sources (geometrical data, primary and secondary data) geodesy, GPS, photogrammetry, remote sensing, application of digital map data. 5. Data sources (geodesy, GPS, photogrammetry, remote sensing.) 6. Data sources, (remote sensing, visual interpretation, computer application) 7. Spatial analysis (difference on PC and UNIX) 8. Spatial analysis (overlay applications) 9. Spatial analysis (DEM-digital elevation model, TIN) 10. Paper examination. 11. System design. Functions and realisation 12. Application of standards in GIS. 13. Environmental applications. (protection of surface water, soils and aquifers.) 14. Environmental applications. (protection of air and noise.) 15. Presentation of group works.

Requirements:

During the semester the students make a group work in 2-3 members of team. The result of the work is the GIS analysis of a selected area in digital and written form.

Required and suggested references:

Understanding GIS: ESRI 1990, NCGIA Core Curriculum I-IV.szerk. Márkus Béla EFE FFFK Térinformatika menedzsereknek: Lisziewicz Andrea L&Mark Térinformatikai Kft. Távérzékelés: Csornai Gábor-dr. Dalia Olivér EFE FFFK egyetemi jegyzet Detrekői Á. - Szabó Gy.: Bevezetés a térinformatikába, Nemzeti Tankönyvkiadó,1995. Magyar Imre: Térinformatika környezeti menedzsereknek kézirata 1995.