UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2012/13/2
Course:	Applied Geoinformations System
Code:	VEMKKVA232G
Responsible department:	Department of Environmental Engineering
Department code:	MKKV
Responsible instructor:	Imre Magyar

Course objectives:

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

Course content:

1. Application of GIS in resource management, urban planning, demography, decision making and in environmental protection 2. Computers, softwares (Arc/lnfo, Arc/View, Idrisi, Microstation, Ilwis, Erdas, Mapinfo, Grass). PC és UNIX environment similarity and difference in hardware and software. 3. GIS dabases, conceptions. Database management systems. 4. Data sources (geometrical data, primary and secondary datas) geodesy, GPS, photogrammery, remote sensing, application of digital map data. 5. Data sources (geodesy, GPS, photogrammery, 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 elevatin model, TIN) 10. Paper examination. 11. System design. Funcctions 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, evaluation and grading:

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 recommended readings:

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 Detrekôi Á. - Szabó Gy.: Bevezetés a térinformatikába, Nemzeti Tankönyvkiadó,1995. Magyar Imre: Térinformatika környezeti menedzsereknek kézirat 1995.