UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester: 2014/15/1

Course: Geo-information System and Modeling

Code: VEMKKVM453T

Responsible department: Department of Environmental Engineering

Department code: MKKV

Responsible instructor: Viola Somogyi

Course 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.

Course content:

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, evaluation and grading:

According to the requirements of fulfillment.

Required and recommended readings:

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