General Information

Course name	Land Information Systems	**ECTS Credits**	4
		Semester	summer 3 hours/week

Aims

This course introduces students to land information systems as a special case of geographic information system with focus on the contemporary internet technology used by public or private users.
By the end of the course the student will be able to:
- describe main components of LIS, specifics of widely used GIS and CAD softwares, data and legislative aspects
- describe available proprietary and open-source geospatial internet technology used for LIS
- install and set-up an open-source map portal

Contents

Description of Land Information System (LIS), components of LIS, areas of application
Hardware configurations of LIS
Software configurations of LIS, application software of GIS and CAD
Data for LIS - digital map products (e.g., SVM50, ZB-GIS, geoportals, webmap services)
Data for LIS - local government - cadastral maps, technical large-scale maps, price maps, orthophotomaps
Data for LIS - local government - applications and legislative frames
WebGIS - principles of geospatial internet technology - map servers, Google Maps, API, aplications
WebGIS - ArcIMS, Mapserver, software aspects, examples of map portals and their information content
WebGIS - GISPLAN opensource solution (Prešov, Košice)
INSPIRE directive, national law aspects - NIPI, implementation aspects in Slovakia
Practical seminars: installation and set-up of map portal based on open-source products (UMN Mapserver, Geoserver), Assessment Methods and Criteria of existing map portals

Assessment Methods and Criteria

Continuous Assessment Methods and Criteria is based on student's activity in the classes and work on assignments. The course ends with a final written examination. The final assessment is calculated as a weighted average of the assessment from seminars (1/3) and the final test (2/3), however, the student must obtain at least mark E from both parts to earn the credits.

Grading Scale (in %):

Grading System: The University recognises the following six degrees for the Assessment Methods and Criteria of the study results: a) A – excellent (excellent results) (numerical value 1) b) B – very good (above average results) (1.5) c) C – good (average results) (2) d) D – satisfactory (acceptable results) (2.5) e) E – sufficient (results meet the minimum criteria) (3) f) FX –failed (requires further work) (4)

Bibliography

LONGLEY, P. A., GOODCHILD, M. F., MAGUIRE, D. J., RHIND, D. W. 2001: Geographic Information Systems and Science. John Wiley & Sons.

LONGLEY, P. A., GOODCHILD, M. F., MAGUIRE, D. J., RHIND, D. W. 1999: Geographical Information Systems: Principles, Techniques, Management and Applications. John Wiley & Sons.

SHEKHAR, S., XIONG, H. 2008: Encyclopedia of GIS. Springer.

WILSON, J. P., FOTHERINGHAM, A. S. 2008: The Handbook of Geographic Information Science. Blackwell Publishing.