

COURSE DESCRIPTION		
University:	University of Prešov in Prešov	
Faculty:	Faculty of Humanities and Natural Sciences	
Code: 2GAG/EnGIS1G/15	Title: Geographical Information Systems 1	
Field of study: 4.1.35. Geography		
Study programme: Geography and Applied Geoinformatics		
Guarantee: prof. Ing. Jozef Vilček, PhD.		Lecturers: Mgr. Jana Michalková, PhD.
Semester:	Forms of teaching:	Number of credits:
Winter	Lectures, seminars	
	Recommended number of hours: 26	
	Per week: 1/1 Total per study: 13/13	
Prerequisites:-		
Assessment: exam		
Course assessment:		
Final assessment: exam		
Objective:		
The aim of this course is to explain elements of geographic information science, geographic information systems (GIS) and remote sensing. It will show various ways of digital representation of landscape in GIS, collecting, processing and storing geographic data. The students will learn how to work with geographic data, create map outputs and perform basic spatial analysis in a GIS environment. The students will receive an overview about geographic data communication using the Internet and application of GIS technology in practice.		
Course content:		
Introduction to geographic information science. Geographic information system. Spatial representation of landscape. Raster and vector data model. Data collection for GIS. Spatial databases. Data transformations and spatial analyses. Digital terrain models. Acquiring and processing remote sensing data. Visualisation and cartographic presentation. Applications.		
Literature:		
HOFIERKA, J.: Geografické informačné systémy a diaľkový prieskum Zeme. Vysokoškolské učebné texty. Prešov, FHPV PU, 2003.		
PRAVDA, J., KUSEDOVÁ, D.: Počítačová tvorba tematických máp. Vysokoškolské učebné texty. Bratislava, PRIF UK, 2004.		
TUČEK, J.: Geografické informační systémy. Principy a praxe. Computer Press, Praha, 1998.		
LONGLEY, P. A., GOODCHILD, M. F., MAGUIRE, D. J., RHIND, D. W.: Geographic Information Systems and Science. John Wiley a Sons, 2001.		
NETELER, M., MITASOVA, H.: Open Source GIS: A GRASS GIS Approach. Second Edition. Boston: Kluwer Academic Publisher, 2004.		
Language the course is taught in:		Signature of guarantee and date of last edition:
English		April 2024