

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ ISU/21	Course name: Information systems on territory
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method:	
Number of ECTS credits: 5	
Recommended semester/trimester of the course: II. (Master)	
Course level:	
Prerequisites:	
Conditions for course completion: The evaluation is based on a combination of continuous control of exercises and lectures and a final exam. Continuous control of the exercises is carried out during the teaching part of the exercises in the form of tasks for independent work with a share of 30% in the final assessment. Lectures are conducted in the form of flipped teaching, where students receive study materials in advance and the topic is discussed during the lecture. The interim control at the lecture with a weight of 20% is focused on the student's readiness to professionally discuss the given topics, formulate questions and answers. A student can apply for the exam if he received an evaluation of at least grade E in the interim control. The resulting evaluation is a weighted average of the evaluation from the interim control (50%) and the exam (50%). The exam is carried out in the form of a professional essay, which the student prepares on a specified topic and within a time limit, and which demonstrates his professional knowledge and the ability to think analytically and critically. Credits will be awarded only to students who achieve a grade of at least E in each part of the assessment. Grading scale: A (100-91%), B (81-90%), C (71-80%), D (61- 70%), E (51-60%).	
Learning outcomes: Knowledge: The student will gain knowledge of the basic structure and components of information systems about the geographical area. He will get an overview of the used information systems about the territory in public administration, engineering network administrators, industrial enterprises and service providers. They will get acquainted with the individual types of data used and with the most frequently performed spatial analyzes. Gain an overview of web GIS and its importance for the communication of geographic information via the Internet, existing map servers, geoportals and web GIS tools used to interpret geographic information. They will understand the importance of the integration of information systems about the territory with non-geographic information systems and the legislative framework for publishing geospatial data on the Internet. Skills: The student will learn to obtain and work with geospatial data and information used in information systems about the territory in various software environments and publish them on the Internet in the form of webGIS or other online tools. Competences: The student is able to analyze with a high degree of independence the possibilities of deploying an information system about the territory in organizations using geospatial data and design a suitable hardware and software solution and determine the appropriate type of data. In these tasks he can communicate and cooperate with other experts, formulate opinions and recommendations in the creation and use of information systems about the territory.	
Brief outline of the course:	

<p>Lectures: Structure and objectives of the territory information system. Hardware and software equipment. Geographic data used. Personal Security. Basic features and objectives of information systems about the territory for the needs of public administration, managers of engineering networks, industrial enterprises and service providers. Geospatial data used in territory information systems. Map servers and geoportals. Integration with non-geographic information systems. Examples of territory information systems in public administration and selected organizations. The effectiveness of the deployment of the territory information system and the legislative framework for their use. Exercises: GIS tools for webGIS creation (QGIS plugins, BatchGEO, Google Earth Engine, ArcGIS Online, CartoDB), WMS and WFS map services, work with selected webGIS applications (e.g. FlightRadar, MeteoEarth, NullSchool, Global Solar Atlas, ..), ZBGIS, webGIS of selected places, publishing own data (via QGIS, ArcGIS, 3DHOP, etc.).</p>
<p>Recommended literature:</p>
<p>Course language:</p>
<p>Notes:</p>
<p>Course assessment Total number of assessed students: 5</p>
<p>Course assessment is visible only in case of include the course to some study plan.</p>
<p>Provides: prof. Mgr. Jaroslav Hofierka, PhD.</p>
<p>Date of last modification: 22.04.2021</p>
<p>Approved:</p>