

Study Programme: WATER MANAGEMENT			
Course Unit Title: BASICS OF REMOTE SENSING			
Course Unit Code: 19.URV054			
Name of Lecturer(s): Atila Bezdán, Pavel Benka, Milica Vranešević			
Type and Level of Studies: UNDERGRADUATE ACADEMIC STUDIES			
Course Status (compulsory/elective): elective			
Semester (winter/summer): summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning):face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: -			
Course Aims: Introducing students to the theoretical fundamentals of Remote Sensing and training students to use basic computer application software for Remote Sensing.			
Learning Outcomes: Enabling students to apply the acquired knowledge in the further process of education as well as in future professional work and engineering problem solving.			
Syllabus: <i>Theory</i> Introduction, history of Remote Sensing. Basics of photogrammetric imaging, central and orthogonal projection, orientation of photogrammetric imaging, orthorectification. Aerial photography (airplane, unmanned aerial vehicle), satellite imagery. Types of sensors, sensor characteristics. Interpretation of sensory records. Fundamentals of classifications of satellite and photogrammetric images. <i>Practice</i> Satellite image download, image handling, classification. Presentation of unmanned aerial vehicle image collection, image processing, classification and interpretation.			
Required Reading: 1. Gonzáles, F.E., Riuz, M.J., Acosta, F.M., Remote Sensing Tutorial, Universitas de las Palmas de Gran Canaria, 2006 2. Tiwari, K.N., Chatterjee, C, Gontia N. K., Kumar Jena, S., Remote Sensing & GIS Applications, AgriMoon.com, 2020 3. Manuals for Remote Sensing applications			
Weekly Contact Hours:	Lectures:30	Practical work:30	
Teaching Methods:			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	30
Practical work	25	oral exam	20
Preliminary exam(s)	20	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			