COURSE INFORMATION SHEET

University: Catholic University in Ružomberok	
Faculty: Faculty of Education	
Course code: KGE/Ge-BD105B/22	**Course title:** Karst and Caves
Type and range of planned learning activities and teaching methods: **Form of instruction:** Seminar **Recommended study range:** **hours weekly:** 1 **hours per semester:** 13 **Teaching method:** on-site	
Credits: 2	**Working load:** 50 hours
Recommended semester/trimester: 3.	
Level of study: I.	
Prerequisities:	
Requirements for passing the course: Verification of the degree of acquisition of relevant knowledge, skills and competencies of the student is carried out based on the evaluation of the student's ongoing tasks during the semester and on the basis of the evaluation of the written test. During the semester, active participation in seminars is required in the form of preparation and presentation of seminar exercises on assigned topics. At the end of the semester, the student proves his theoretical knowledge in the form of a written test. Subject evaluation: A – 100%-93%, B – 92%-85%, C – 84%-77%, D – 76%-69%, E – 68%-60%, Fx – 59%-0%	
Learning outcomes of the course: After completing the course, the student will acquire the following knowledge, skills and competences: - The student will master the overall knowledge of the development, use and protection of karst landscapes and caves, which are among the most vulnerable types of natural systems with minimal to impossible regenerative capacity. - He understands the basic laws of the development of karst and caves, he can clarify the strong interactions between the components of the landscape sphere during their development, as well as the reasons for their vulnerability and the need for a comprehensive approach to their protection. - Can identify basic geological, geomorphological and hydrological phenomena and formations in the karst landscape and clarify their mutual connections and influence on other components of the landscape sphere. - It has collective knowledge about the expansion and spatial differentiation of the development of karst and caves in Slovakia and in the world. - He can apply the acquired knowledge in teaching geography at primary and secondary schools, including educational excursions.	
Course contents: 1. Karst and the process of karstization, geological and physical-geographic conditions of karst development, lithological types of karst. 2. Karst hydrography, hydrological phenomena in karst. 3. Surface forms of karst georelief. 4. Morphostructural types of karst. 5. Morphological and genetic types of caves. 6. Hydrographic regularities and phases of cave development, geomorphological forms in caves. 7. Cave chemogenic and clastic sediments. 8. Cave climate, glaciated caves. 9. Cave biota, paleontological findings in caves. 10. Paleogeographic development of the landscape recorded in karst and caves. 11. Settlement and use of caves, archaeological finds and cultural	

monuments in caves. 12. Karst landscape as a specific natural geosystem, environmental problems in karst. 13. Karst and caves in Slovakia and in the world, protection of karst and caves.

Recommended or required literature:

BELLA, P. (2008). Caves as natural geosystems – geoecological research and environmental protection. ŠOP SR, SSJ, Liptovský Mikuláš, 167 p. JAKÁL, J. (1993). Geomorphology of the Karst of Slovakia. Slovak Karst, 31, 13–28. JAKÁL, J. AND COL. (2005). World heritage caves in Slovakia. SSJ, Liptovský Mikuláš, 159 p. BELLA, P. (2011). Genetic types of caves. Verbum, Ružomberok, 220 p. BELLA P. (2016). Caves in Slovakia – genetic types and morphology. Verbum, Ružomberok, 124 p. JAKÁL, J. (2002). Karst landscape, its characteristics and resistance to anthropogenic influences. Geographical Journal, 54, 4, 381–392. Available online: https://www.sav.sk/journals/uploads/05131245Jak%C3%A1l.pdf BELLA, P. (2012). Vulnerability, ecostabilizing factors and disturbance of the cave environment. Geographical Journal, 64, 3, 201–218. https://www.sav.sk/journals/uploads/03101237Bella.pdf

Language of instruction:

Notes:

Course evaluation:

Assessed students in total: 21

A	B	C	D	E	FX
38.1	23.81	28.57	4.76	0.0	4.76

Name of lecturer(s): doc. RNDr. Pavel Bella, PhD.

Last modification: 06.10.2022

Supervisor(s):

Guarantor:

Administrátor Systému

People responsible for the delivery, development and quality of the study programme:

prof. ThDr. Rastislav Adamko, PhD., doc. Mgr. Marek Babic, PhD., doc. RNDr. Pavel Bella, PhD., prof. PaedDr. Mgr. art. Rastislav Biarinec, ArtD., prof. Irina Chelysheva, DrSc., prof. PaedDr. František Dlugoš, PhD., Mgr. Juraj Dvorský, PhD., prof. PhDr. Ingrid Emmerová, PhD., doc. Tatiana Korenkova, CSc., prof. PaedDr. Milan Ligoš, CSc., doc. Mgr. Eva Litavcová, PhD., doc. PaedDr. Peter Mačura, PhD., prof. PhDr. David Papajík, PhD., doc. Ing. Miroslav Saniga, CSc., prof. Nóra Séllei, PhD., DrSc., PhDr. ThLic. Martin Taraj, PhD., Prof. Ing. Peter Tomčík, PhD., prof. Dr. phil. fac. theol. Peter Volek, doc. Ing. Igor Černák, PhD.