

Ore Deposits

COURSE DESCRIPTION

University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KMPLG/N-mMPL-002/22	Course title: Ore Deposits
Educational activities: Type of activities: practicals / lecture Number of hours: per week: 1 / 2 per level/semester: 14 / 28 Form of the course: on-site learning	
Number of credits: 4	
Recommended semester: 1. Winter semester	
Educational level: II. Degree	
Prerequisites:	
Course requirements: Written exam. To obtain an A rating, it is necessary to demonstrate 92-100% of the required knowledge; to obtain a B rating of 84-91%, a C rating of 76-83%, a D rating of 68-75% and rating E 61-67% of required knowledge.	
Learning outcomes: Students will gain extended knowledge of ore deposit-forming processes and methods of their study, the main deposit types and their characteristics, with an emphasis on understanding of the related deposit-forming processes and the genesis of deposits and with examples of typical important global and Slovak ore deposits. In the practical part, they will learn to recognize individual types of ore raw materials and actively search for information about ore deposits.	
Class syllabus: Introduction to the geology of ore deposits (history, basic terms, different types of classifications). Research methods of ore-forming processes (study of ore textures, hydrothermal alteration, fluid inclusions, stable and radioactive isotopes, mineral geothermobarometry). Magmatogenic deposits: main principles of formation, deposits related to fractional crystallization, deposits related to silicate-sulfide immiscibility, deposits in alkaline complexes and carbonatites, deposits associated with granitoid magmatism (albitites, greisens, pegmatites, porphyries, skarns, IOA and IOCG). Hydrothermal deposits: main principles of formation, epithermal deposits, submarine deposits (VMS, SEDEX), deposits of sedimentary basins (MVT, SSC), deposits connected with orogeny. Weathering deposits: main principles of formation, infiltration deposits, laterite, supergene enrichment of deposits. Sedimentary deposits: placers, chemogene deposits.	
Recommended literature: Robb, L., 2005: Introduction to ore-forming processes. Blackwell Publishing. Pohl, L., 2011. Economic Geology: Principles and practice. Wiley-Blackwell. Pirajno, F. 2010. Hydrothermal processes and mineral systems. Springer. Arndt, N. a Ganino, C. 2012: Metals and Society. Springer. Hedenquist J.W. et al. (eds.), 2005: Economic Geology 100th Anniversary Volume. Society of Economic Geologists. Revuelta, M.B., 2018: Mineral Resources. Springer.	
Languages necessary to complete the course: English	
Notes: The subject is taught only in the winter semester.	

Hodnotenie predmetov**Past grade distribution**

Total number of evaluated students: 1:

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	100.0	0.0

Lecturers: prof. Mgr. Peter Koděra, PhD., doc. Mgr. Peter Šottník, PhD.**Last change:** 24. April 2023**Approved by:** prof. RNDr. Monika Huraiová, PhD.

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