

Mineral Deposits of the World

COURSE DESCRIPTION

University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KMPLG/N-mGZL-025/22	Course title: Mineral Deposits of the World
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 3. 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: Overview of the world's most important ore, non-ore, coal and hydrocarbon deposits. Overview about existing deposit reserves, production, resources and consumption of mineral raw materials, especially critical and strategic raw materials.	
Class syllabus: Metallogenetic units and their relationship to the geodynamic evolution of the Earth. Distribution of deposits in the periods of the Earth's evolution. Geological setting and ore deposits of Europe. Geological setting and ore deposits of Asia. Geological setting and ore deposits of Africa. Geological setting and ore deposits of Australia and the adjacent islands (Australasia). Geological setting and ore deposits of America. Industrial mineral deposits of Europe with a focus on their resources and overall economic potential. Industrial mineral deposits of Asia with a focus on their resources and overall economic potential. Industrial mineral deposits of North and South America with a focus on their resources and overall economic potential. Industrial mineral deposits of Africa, Australia and the Pacific region with a focus on their resources and overall economic potential. Temporal and spatial patterns of oil and natural gas formation in sedimentary basins and their significance. Most important oil provinces: the Middle East and North Africa, the territory of the former USSR, the deposits of North America, Europe. Importance of extraction from sea shelves, new discoveries. Coal deposits of the world - coal of the Variscan foredeep, Mesozoic and Tertiary coal. Most important deposits of China, USA, Russia and European deposits. Coal reserves in the world and prospects for their extraction. Unconventional fossil fuels - coal and oil shales, coal bed gas, methane hydrates: perspectives, economic and environmental problems of using fossil fuels. Non-fossil energy raw materials and trends in the use of energy raw materials.	
Recommended literature: Revuelta, M.B., 2018: Mineral Resources. Springer. Laznicka, P., 2010: Giant metallic deposits: Future sources of industrial metals. Second edition. Springer.	

Hedenquist J.W. et al. (eds.), 2005: Economic Geology 100th Anniversary Volume. Society of Economic Geologists.

Wessely G and Liebl W. 1996: Oil and gas in Alpidic trustbelts and Basins of Central and Eastern Europe. EAGE, London.

Downey M,W., Treet, J.C. Morgan W. A., 2001: Petroleum province of the twenty-first century: AAPG Memiir 74.

Kogel J.E. et al. (Ed) 2006: Industrial Minerals and Rocks. 7th edition.

Current yearbooks and statistical data.

Languages necessary to complete the course:

Notes: The subject is taught only in the winter semester.

Past grade distribution

Total number of evaluated students: 0

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

Lecturers: prof. Mgr. Peter Koděra, PhD., prof. RNDr. Otília Lintnerová, CSc., doc. Mgr. Peter Uhlík, PhD.

Last change: 24. April 2023

Approved by: prof. RNDr. Monika Huraiová, PhD.