#### **COURSE INFORMATION SHEET**

**University:** Catholic University in Ružomberok

Faculty: Faculty of Education

Course code: KGE/Ge-

**Course title:** Paleogeography

MD101B/22

Type and range of planned learning activities and teaching methods:

Form of instruction: Lecture / Seminar

**Recommended study range:** 

hours weekly: 1/1 hours per semester: 13/13

Teaching method: on-site

Credits: 2 Working load: 50 hours

**Recommended semester/trimester:** 1.

Level of study: II.

**Prerequisities:** 

### Requirements for passing the course:

In order to pass the subject, one must master the thematic scope of paleogeography and prepare a semester paper. The overall evaluation consists of the assessment of the semester work (40%) and the final exam (60%).

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 subject, the student will acquire the following knowledge, skills and competences:

- The student understands the dynamics of changes in the paleogeographic picture and the development of the Earth
- Gain knowledge about the expansion of land, mountains and oceans depending on the movements of the earth's crust, hydrographic and climatic conditions.
- Uses paleogeographic maps to recognize spatial changes in the expansion of continents and oceans, straits and land bridges, ocean current systems, desertification of desert areas, etc.
- Analyzes the historical record and interprets conditions in the Earth's geological past
- Provides a compilation of the data from professional literature and internet sources for the preparation of a semestral work.

### **Course contents:**

- 1. Paleogeographic changes due to orogenetic and epeirogenetic movements, isostasy, glaciostasis, eustatic sea level movements, etc.
- 2. The oldest consolidated parts of the continents continental shields, plates, cratons, platforms, epiplatforms, their geographical definition and geological structure.
- 3. The great bombardment of the Earth and the great impact events in the history of the Earth.

- 4. The snowball theory and the great glacial eras in the development of the Earth (the glaciation of Anktartida and the Arctic).
- 5. The first systems of Earth's continents Rodinia and Panotia and the global proto-ocean superocean Mirovia.
- 6. The formation of Paleo-Europe by the collision processes of Laurentia, Avalonia and Baltica, the disappearance of the Iapetus ocean, the growth of the Caledonian orogen, the destruction of shelves and the transition of life from sea to land. Presentation of the Caledonian mountains in Scotland and Scandinavia.
- 7. The emergence of the supercontinent Pangea, the disappearance of the Rheic Ocean and the emergence of Hercynian Europe, the Germanic Basin, etc.
- 8. Tethys Europe, North Tethys shelves, Apulian and Adriatic plates, Meliat and Vardar oceans, Piedmont-Ligurian ocean, etc.
- 9. The formation of Neo-Europe by processes of Alpine folding, the uplift of the Alpine-Carpathian system, the formation of the basins of the Mediterranean and Paratethyan regions.
- 10. Great Pannonian lake, hydrography of river networks, inland Danube delta, contemporary relics of Paratethyan lakes (Balaton, Neusiedler)
- 11. Formation and paleogeographical development of the Atlantic Ocean, the Central Atlantic and its volcanic province.
- 12. Paleogeographic changes of the Mediterranean Sea (Messinian crisis, Zanclean flood). Desertification of the Sahara and the impact on the oldest civilizations.
- 13. Formation of the topo-relief of contemporary Europe, young Tertiary planation processes, Quaternary processes of the relief modeling of Slovakia.

# Recommended or required literature:

SOTÁK, J., 2016: Geological past and paleogeography of the Earth. Ed. Verbum, University of Ružomberok, ISBN 978-80-561-0415-6 (CD)

SOTÁK, J., 2016: Structure, composition and dynamics of the Earth. Ed. Verbum, University of Ružomberok, 978-80-561-0416-3 (CD)

MIŠÍK, M., CHLUPÁČ, I., CICHA, I., 1985: Stratigraphic and historical geology. Slovak pedagogical publishing house in Bratislava, 542 pages.

KOLEKTÍV, 2010: Prehistory - a complete history of the development of life on Earth in pictures. Ed. IKAR (translation – Golej, M., Hyžný, M., Šibíková, I., Šimo, V., Thurzo, M.), 512 p.

KOVAČ, M., MICHALÍK, J., PLAŠIENKA, D., MAŤO, Ľ., 1993: Alpine development of the Western Carpathians. PřiF Masaryk University, Brno, 96 p.

GREGOROVÁ, M., 2013: The mysterious sea in the Carpathians. Moravian Land Museum. 159 pp., ISBN: 978-80-7028-148-6

## Language of instruction:

Slovak

## **Notes:**

#### **Course evaluation:**

Assessed students in total: 8

| A    | В    | С    | D   | Е   | FX  |
|------|------|------|-----|-----|-----|
| 62.5 | 25.0 | 12.5 | 0.0 | 0.0 | 0.0 |

Name of lecturer(s): doc. RNDr. Ján Soták, DrSc.

Last modification: 31.08.2022

## **Supervisor(s):**

**Guarantor:** 

Administrátor Systému

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

prof. ThDr. Rastislav Adamko, PhD., doc. RNDr. Pavel Bella, PhD., prof. PaedDr. Mgr. art. Rastislav Biarinec, ArtD., prof. Irina Chelysheva, DrSc., prof. PaedDr. František Dlugoš, PhD., prof. PhDr. Ingrid Emmerová, PhD., doc. Tatiana Korenkova, CSc., Prof. Dr. hab. Wojciech Józef Kunicki, prof. PaedDr. Milan Ligoš, CSc., doc. Mgr. Eva Litavcová, PhD., prof. PhDr. David Papajík, PhD., doc. Ing. Miroslav Saniga, CSc., prof. Nóra Séllei, PhD., DrSc., PhDr. ThLic. Martin Taraj, PhD., prof. Dr. phil. fac. theol. Peter Volek, prof. Mgr. Martin Zvonař, Ph.D., doc. Ing. Igor Černák, PhD.