

Study program: Environmental protection			
Type and level of study: Bachelor academic studies			
Course Title: Paleoenvironmental Reconstructions			
Teachers: Biljana Panin			
Status: Elective, VI semester			
ECTS: 7			
Prerequisite: None			
The goal of course To learn about different methods of the reconstruction of the environment during the Earth's history. Getting the basic knowledge about the evolution of life on Earth, with special focus on paleontological evidence for evolution and on the evolution of certain groups of plants and animals.			
The outcome of the subject The student will gain the knowledge of the methods and principles of the reconstruction of paleogeographic, paleoclimatic and paleoecological conditions throughout the geologic history of the Earth, learn about the changing conditions on Earth, and about the evolution of certain groups of animals and plants through geological time.			
Syllabus <i>Theoretical study</i> – Introduction. Principles of paleontological reconstruction; the most important concepts and terms. Reconstruction of the most important physical, chemical, geographical, climatological and ecological conditions of the environment through different periods of Earth's history. Basic geochronology; geological history of the Earth; origin of life; first forms of life; distribution of major groups of organisms through geological history of the Earth; great diversification of marine organisms; first terrestrial organisms; the earliest terrestrial plants; appearance of the first dinosaurs and the first mammals; Mesozoic dominance of dinosaurs and other reptiles; Cenozoic diversification of mammals; the emergence and development of man. Paleogeographic reconstruction-movements of continents; paleoclimatic reconstruction-climate of the Earth; paleoecological reconstruction- ecological valences; paleomagnetism. Pleistocene ice ages and the Holocene; reconstruction of paleoclimatic and paleoecological conditions on the index-fossil organisms, isotopes (from the glacier, ocean and lake sediments), dendochronology, volcanic ash, pollen etc. <i>Practical classes</i> – Exercises will accompany the lectures and are designed as independent work of students at the particular materials and include practical work on the fossil material. Demonstrations paleogeographic, paleoclimatic and paleoecological drawings and atlases.			
Literature 1. Mitrović, J. (1996). Paleoeкологија sa osnovama tafonomije. Univerzitet u Beogradu. Rudarsko-geološki fakultet. Beograd. 2. Eremija, M. (1980). Paleogeografija. Univerzitet u Beogradu. Rudarsko-geološki fakultet. Beograd. 3. Rabrenović, D., Knežević, S. & Rundić, Lj. (2003). Istorijaska geologija. Univerzitet u Beogradu. Rudarsko-geološki fakultet. Beograd. 4. Lee-Thorp J, and Sponheimer M. 2015. <u>Contribution of Stable Light Isotopes to Paleoenvironmental Reconstruction</u> . In: Henke W, and Tattersall I, editors. Handbook of Paleoanthropology. Berlin, Heidelberg: Springer Berlin Heidelberg. p 441-464.			
Number of lectures: 5			Other Classes
Lectures: 2	Practices: 3	Other forms of teaching:	
Teaching methods: Lectures with modern visual presentation, screenings, practical work on the fossil material.			
Score (maximum 100 points)			
Pre-commitments	Poens	The final exam	Poens
Activity during lectures	10	Written exam	30
Practical classes	20	Oral examination	
Colloquia	20		
Seminars			
<i>Total</i>	70		30