

Name of the subject: Quaternary climatic and environmental change		
Teacher(s): Slobodan Marković , Biljana Basarin , Mladen Jovanović		
Status of the subject: elective		
Number of ECTS points: 15		
Condition: None		
Goal of the subject Improving students' knowledge of the patterns of climate change and environmental change during the Quaternary. Understanding climate and environmental dynamics during the Quaternary is extremely important for understanding the real dimensions of modern global warming.		
Outcome of the subject Students will be able to independently apply the acquired knowledge in scientific research, active monitoring of literature and new results in the field of climatology and ecology of the Quaternary, independent comparison of paleogeographic dynamics during the Quaternary with modern processes		
Content of the subject <i>Theoretical lectures</i> General overview of climate and environmental changes during geological evolution; Climate transition during the Quaternary; Milanković's cycles; The most important paleoclimatic models (SPECMAP, CLIMAP); The most important Quaternary climatic and ecological records in the oceans and on land; Quaternary stratigraphy; Paleoclimatic and paleological record of loess sediments; Quaternary evolution of Pannonian Basin. <i>Practical lectures</i> Field work - sampling and site description; preparation of samples for analysis; techniques of rock magnetism analysis, granulometric composition analysis techniques, malacological analysis, colorimetric analysis.		
Recommended literature Dawson, A.G. (1992): Ice Age Earth – Late Quaternary geology and climate. Routledge, London and New York. Bradley, R.S. (1999): Reconstructing Climates of the Quaternary. Int. Geophysics ser., vol. 68. Lowe, J.J. (2002): Reconstructing of Quaternary Environments. Longman, Harlow. Burroughs, W.J. (2005): Climate Change in Prehistory. Cambridge University Press. Rapp, D.(2009) Ice Ages and Interglacials: Measurements, Interpretation and Models, Springer, Germany Bennett, M., Glasser, N. (2009): Glacial Geology, Ice Sheets and landforms. Wiley-Blackwell		
Number of active classes	Theory: 5 (75)	Practice: 5 (75)
Methods of delivering lectures Lectures, individual consultations, field and laboratory work, seminar papers.		
Evaluation of knowledge (maximum number of points 100) Seminar paper 50 Oral exam 50		