



## ЦЕНТЪР ЗА ОБУЧЕНИЕ – БАН

1000 София  
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### Basic Information:

Course Title: PALAEOECOLOGY. MAIN METHODS USED IN PALAEOECOLOGICAL STUDIES

Lecturer: Prof. Nadja Ognjanova-Rumenova, PhD

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Total Teaching Hours: 30 class hours;

### Annotation (up to 150 words)

This course is addressed to geologists, geomorphologists, biologists, archaeologists and other specialists who are interested in ecology. The course emphasizes understanding the interrelation organism/environment in the geologic past: living conditions in past geological periods; interrelations between organisms and their environment (biotic and abiotic factors); variation in the organisms during the processes of life evolution on the Earth. Particular interest is the methods applied in paleoecological studies: morphofunctional, actualistic, taphonomic, quantitative, experimental and biogeochemical (paleotemperature, paleohalometry). Other aspects in the applying palaeoecology are also discussed: the trends in the climatic changes; the using of different index organisms for the palaeoecological reconstructions in paleobasins; determinations the trends of acidification, eutrophication, etc. in modern basins.

### Course content (brief description by topics or modules)

Topic / Module 1: Dating methods and chronology;

Topic / Module 2: Methods for bio-remains analyzing (Paleontological)

Topic / Module 3: Structural and ecological analyses

### Teaching and assessment methods

Regular form of training and consultations (with 1-2 participating PhD students)

### Competencies acquired as a result of training (3–5 points)

These methods are mainly applied in Neogene and Quaternary paleoecology (the last 2.8 million years);

### Literature:

. Балтаков, Г. 1988. Кватернерна геоморфология и палеогеография. СУ „Св. Климент Охридски“

Николов, Т. 2009. Основи на палеонтологията и историчната геология. СИ „Св. Климент Охридски“

Birks, H., Birks, H., 2004. Quaternary Palaeoecology. Blackburn Press: 289 pp.

Bottjer, D. 2016. Palaeoecology: Past, present, and future. ISBN:9781118455838 |DOI:10.1002/9781118455838, Wiley, J. & Sons, Ltd.



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Brenchley, P., Harper, D. 1998. Paleoeology: Ecosystems, environments, and evolution, 402 pp.

Croft, D., Su, D., Simpson, S. 2018. Methods in palaeoecology. • DOI:  
<https://doi.org/10.1007/978-3-319-94265-0>; Springer Cham

Encyclopedia of Quaternary Science. Amsterdam: Elsevier

\*And specialized articles on individual topics.