Study programme: Bachelor with honours in Geography Teaching, Bachelor with honours in Geography,

**Bachelor with honours in Ecology** 

Course title: Biogeography

Teacher(s): dr Goran Anačkov, dr Olivera Bjelić-Čabrilo

Status: compulsory

ECTS: 6

Requirements: none

# Learning objectives

Introduction to the basic concepts, processes and methods in biogeography. Knowledge of the principles of distribution of plant and animal species and communities living on the land and in the sea, in some phytoplankton and zoogeographic regions, especially in Serbia.

### Learning outcomes

Obtaining basic knowledge of biogeography; Understanding the complex concepts and chorology of the plant and animal species and communities living on the Earth; After finishing the course, students understand the basic principles of horizontal and vertical distribution of organisms, are able to recognize and identify the biogeographic categories; Ability to properly apply research methods in biogeography and biogeographic characteristics typical for Serbia.

### **Syllabus**

Theoretical part:

Biogeography, historical development, goals and objectives. Areal, design and performance ranges (mapping, typology, dimensions, forms, dynamic range, forms of distribution), distribution centers and the origin of species. Barriers (physical, ecological, spatial and temporal, biological, active displacement, passive displacement). Endemism, cosmopolitanism, relic, vicarism, island and mountain biogeography. Horology, basic research methods in biogeography. Basis of historical biogeography, continental drift, flora and fauna of the Tertiary, Pleistocene, and its importance in the formation of today's schedule of flora and fauna. Ecological biogeography. Phytogeographic articulation World, floristic kingdom. Zoogeographical division of the land: Notogea, NeoGeo, Paleogea, Arktogea (Holarctic). Phytogeography of Serbia and the Balkan Peninsula, elements of flora in Serbia, vertical stratification chorology of the Balkan Peninsula. Fauna (concept, structure, analysis, genesis). Fauna of Serbia with representatives of tetrapod characteristic of vertebrates.

# Practical part:

Basic methods of mapping, directly and indirectly, in floristic mapping. Elements of flora. Floristic Statistics (spectrum range types, taxonomic and biological spectrum, tribal coefficient, the index of flora, assessment of floristic richness and diversity of flora similarity indices). Endemics, relicts. Vertical stratification of the examples of the high mountains of the Balkan Peninsula. Typical representatives of the vertebrates of some zoogeographic areas via audio and video.

# Literature

- 1. Janković, M. (1985): Fitogeografija. Prirodno-matematički fakultet Univerziteta u Beogradu, Jugoslovenski zavod za produktivnost rada i informacione sisteme, Beograd.
- 2. Janković, M.M., Atanacković, B.S. (1999): Biogeografija sa pedologijom. Geografski fakultet, Univerzitet u Beogradu, Beograd.
- 3. Lopatin, I. K.(1995): Zoogeografija. Prevod sa ruskog-Snežana Pešić, Zim-Prom, Kragujevac.
- 4. Lopatin, I. K., Matvejev, S. (1995): Kratka zoogeografija sa osnovama biogeografije i ekologije bioma Balkanskog poluostrva, 1. knjiga, Ljubljana.

Weekly teaching load 5 (75)	Lectures 3	Exercises 2
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### **Methods of Teaching**

Lectures with interactive audio and video presentations. Discovery learning by solving problems in biogeographical analyzes. The obvious lessons with adequate collections of natural materials.

# Grading method (maximu 100 points)

Pre-examination assignments	points	Final examination	points
Activities during lectures	5	Written examination	45
Activities during exercises	5	Oral examination	20
Colloquia	15		
Seminar paper	15		