Study Programme: BSc Biology

Course Unit Title: Biogeography

Course Unit Code: OB040

Name of Lecturer(s): Prof. Goran Anačkov, PhD; Prof. Olivera Bjelić-Čabrilo

Type and Level of Studies: UAS – Undergraduate academic studies

Course Status (compulsory/elective): Obligatory

Semester (winter/summer): Summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 6

Prerequisites:

Course Aims:

Introduction to basic concepts, processes and methods in biogeography. Knowing the rules of the distribution of plant and animal species, as well as communities living in different Phyto- and Zoogeographic areas, with special emphasis on the territory of Serbia.

Learning Outcomes:

Acquired basic knowledge about areal and horology of species and communities on Earth, as well as about biogeographic characteristics of Serbia.

Syllabus:

Theory

Areal. Features of the areal (mapping, typologies, dimensions, forms, dynamics, forms of distribution), distribution centers and the origin of species. Barriers (physical, ecological, spatial, temporal, and biological). Active and passive dispersal. Endemism, relic and cosmopolitan organisms, theory and examples of vicars, island and mountain biogeography. Horology, the basic research methods in biogeography. Basics of historical biogeography, continental drift, flora and fauna in tertiary, ice-age and its importance and impact on today's flora and fauna. Phytogeographical classification of the World. Floristic kingdoms. Zoogeographic classification of the land areas: Notogea, Neogea, Paleogea, Arctogea (Holarctic). Phytogeography of Serbia and the Balkan Peninsula, elements of flora in Serbia, vertical stratification in the territory of the Balkan Peninsula. Fauna (concept, structure, analysis, genesis). Fauna of Serbia, with typical representatives of the tetrapod vertebrates.

Practice

The basic methods of mapping, directly and indirectly mapping in floristic research. Elements of the flora. Floristic statistics (areal types, taxonomic and biological analyses, genera coefficient, index of Florogenesis, floristic abundance and diversity, index of similarity). Endemics, relics. Vertical stratification at high mountains of the Balkan peninsula. Characteristic representatives of vertebrates in some zoogeographic areas.

Required Reading:

1. Cox, B., Moore, P. & Ladle, R. (2016): Biogeography – An Ecological and Evolutionary Approach, 9th ed. John Wiley & Sons, Chichester, UK; Hoboken, NJ.

2. Lomolino, M., Riddle, B. & Whittaker, R. (2017): Biogeography – Biological Diversity across Space and Time, 5th ed. Sinauer Associates, Inc. Sunderland.

3. Takhtajan, A. (1986): Floristic Regions of the World. University of California Press, Berkley and Los Angeles.

Weekly Contact Hours: 5	**Lectures: 3**	**Practical work: 2**
Teaching Methods: Theoretical lectures with interactive methods of teaching with audio-video presentations. Learning by discovery upon resolving the problems in biogeographical analyses. Practical teaching with appropriate collection of plant material.		
Knowledge Assessment (maximum of 100 points):		

Pre-exam obligations	points	**Final exam**	points
Active class participation	10	written exam	45
Colloquia	15	oral exam	20
Semester tests	15		