

Learning outcomes undergraduate programme of environmental sciences

1. Explain the fundamental biological, geographic and geological principles and mechanisms at all integrative levels of environmental organisation
2. Integrate the knowledge of biology, geography and geology in order to comprehend natural processes in the environment
3. Explain how abiotic and biotic factors affect the biological, geographic and geological parameters of the environment, and explain the associations of mechanisms and properties that determine the biotic and abiotic components of the environment
4. Associate the diversity of structural and functional structure (organelles, organs and organ systems) of organisms with their way of life and the environmental conditions
5. Explain with arguments the connection between the basic mechanisms and the properties that determine the biotic and abiotic components of the environment and identify how the connection of the basic mechanisms affects more complex systems in the environment
6. To connect the diversity of structural and functional structure (organelles, organs and organ systems) of organisms with the way of life and environmental conditions
7. Apply an experimental approach in studying the fundamental biological, geographic and geological principles and mechanisms, as methods of attaining new knowledge on the environment
8. Differentiate environments on Earth, their properties, dynamics and sediments, with an analysis of their geological properties
9. Analyse the geological structure of the Earth and processes in the Earth's core and on the surface
10. Explain the origin and evolution of the Earth, Solar system and tectonic plates, the Earth's dynamics, earthquakes and volcanoes
11. Differentiate types of rocks, tectonic processes and structures
12. Interpret the history of the environment and the influence on living systems (species, communities, ecosystems, organisms)
13. Explain the significance of population in the processes and functional organisation of space
14. Evaluate and associate the interpretation and synthesis of the fundamental natural history information and data
15. Interpret how geological and geographic parameters affect biodiversity of organisms and their adaptations to the environment
16. Interpret the adaptations to the living conditions of the environment and the interaction of biological, geographic and geological laws in the interpretation of evolution of the living world
17. Make conclusions on the basis of biological, geographic and geological principles and mechanisms
18. Analyse spatial and environmental issues of low and medium complexity
19. Apply the skills necessary for field work, mapping geographic content, georeferencing and orientation in space, using cartography and contemporary technology
20. Attain independence in conducting literature searches
21. Apply the fundamental methods of statistical and graphical methods in the analysis and presentation of results in researching the environment
22. Analyse the fundamental statistical data in researching the environment

23. Apply and implement laboratory and field methods of researching the fundamental biological, geographic and geological parameters in the environment
24. Use information technology skills in the collection of environmental data
25. Apply the methods and techniques of expert and scientific work
26. Evaluate the scientific approach to professional work and making professional decisions based on scientific findings in the field of environmental science
27. Resolve tasks relating to the qualitative and quantitative geographical information
28. Develop awareness for the importance and need for ongoing professional development
29. Develop awareness of the importance and need for independent professional work, and the capacity for efficient team work necessary for professional progress
30. Develop awareness of the importance and need for efficient team work necessary for professional progress