

Undergraduate study of environmental science

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. Differentiate environments on Earth, their properties, dynamics and sediments, with an analysis of their geological properties
6. Analyse the geological structure of the Earth and processes in the Earth's core and on the surface
7. Explain the origin and evolution of the Earth, Solar system and tectonic plates, the Earth's dynamics, earthquakes and volcanoes
8. Differentiate types of rocks, tectonic processes and structures
9. Interpret the history of the environment and the influence on living systems (species, communities, ecosystems, organisms)
10. Explain the significance of population in the processes and functional organisation of space
11. Evaluate and associate the interpretation and synthesis of the fundamental natural history information and data
12. Interpret how geological and geographic parameters affect biodiversity of organisms and their adaptations to the environment
13. 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
14. Make conclusions on the basis of biological, geographic and geological principles and mechanisms
15. Analyse spatial and environmental issues of low and medium complexity
16. Apply the skills necessary for field work, mapping geographic content, georeferencing and orientation in space, using cartography and contemporary technology
17. Attain independence in conducting literature searches
18. Apply the fundamental methods of statistical and graphical methods in the analysis and presentation of results in researching the environment
19. Analyse the fundamental statistical data in researching the environment
20. Apply and implement laboratory and field methods of researching the fundamental biological, geographic and geological parameters in the environment
21. Use information technology skills in the collection of environmental data
22. Apply the methods and techniques of expert and scientific work
23. Evaluate the scientific approach to professional work and making professional decisions based on scientific findings in the field of environmental science
24. Resolve tasks relating to the qualitative and quantitative geographical information
25. Develop awareness for the importance and need for ongoing professional development

26. Develop awareness of the importance and need for independent professional work, and the capacity for efficient team work necessary for professional progress
27. Apply an experimental approach in studying the fundamental biological, geographic and geological principles and mechanisms, as methods of attaining new knowledge on the environment