

Learning outcomes of the bachelor's degree program 6B05210 - Ecology

Learning outcomes
LO1 To communicate fluently in professional and social settings in Kazakh, Russian, and English languages, while maintaining academic integrity and the culture of academic writing.
LO2 To demonstrate socio-cultural and professional development based on the formation of ideological, civic, spiritual and social responsibility, methods of scientific and experimental research.
LO3 To acquire information and computational literacy, to use professional programs in professional activities.
LO4 To demonstrate integrity of thinking based on a deep study of the fundamentals of ecology, principles of sustainable development for environmental education and awareness.
LO5 To discuss theoretical and practical problems of animal and plant ecology and biogeography, conservation of biological diversity, bioindication studies and methods of analysis and assessment of biodiversity at different levels of the biosphere organization, principles of sustainability and productivity of living nature and ways of its optimization under the influence of anthropogenic factors.
LO6 To assess environmental safety based on the analysis of data from geographic information systems on the state of the environment, the organization of state environmental monitoring, climate change, rational use of natural resources and waste disposal methods.
LO7 To use in professional activities the principles of environmental legislation and other regulatory legal acts of the Republic of Kazakhstan in the field of forensic activities, as well as the results of geoecological assessment of the use of minerals.
LO8 To conduct a comprehensive analysis of data on the state of the environment, predict changes in the environmental situation and develop measures to reduce pollution of the development area and adjacent natural objects.
LO9 To calculate the dispersion of pollutants in the atmosphere, maximum permissible emissions and maximum permissible discharges, as well as environmental damage to the environment to assess the environmental state of cities and industrial enterprises.
LO10 To develop a set of measures for wastewater treatment, reducing the environmental burden on water bodies and rational use of natural resources.
LO11 To propose environmental protection measures to create low-waste and waste-free technologies, to improve environmental indicators based on the study of production flow charts, sources of waste generation, sanitary norms and rules, collection, accounting and disposal of waste.
LO12 To work effectively individually and in teams using research, entrepreneurship, leadership and self-directed learning skills.