

sciforum-087062: Eco-Friendly Methods of Bioindication and Biotesting in the Training of Postgraduate Biologists (Using the Example of the T.H. Shevchenko National University “Chernihiv Colehium”, Chernihiv, Ukraine)

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All the methods of biological analysis can be classified into two main groups: bioindication and biotesting (bioassay). Bioindication and biotesting are actively used as part of a system of measures to assess the quality of aquatic and terrestrial ecosystems. The aim of this study was to generalize the approaches to the process of training of postgraduate student biologists studying eco-friendly methods of bioindication and biotesting during the war in Ukraine at the T.H. Shevchenko National University “Chernihiv Colehium”. Based on the methods of theoretical research of available information, analysis of scientific and methodical sources on the given problem, empirical method for accumulating facts, and the argumentation method for proving one’s own judgments, the course program “Bioindication of aquatic and terrestrial ecosystems” was developed. Three types of distance learning technologies are used in the process of teaching graduate students: network technology, television-satellite technology, and case technology. The specified discipline ensures the acquisition of additional professional competencies when mastering the cycle of professional training disciplines, in particular, the acquisition by students of competencies and competency in biological indication, its organization and implementation in modern conditions, the main methodological criteria, and approaches used in solving bioindicative tasks at various levels. The course has two content modules: (1) General aspects and an integrative approach. (2) Bioindicators and test organisms in use. An educational and methodological set of didactic materials from the course was created. Thus, the application of distance education using information and communication technologies in the teaching process of the course “Bioindication of aquatic and terrestrial ecosystems” ensures mastering by postgraduate biologists of eco-friendly methods of bioindication and biotesting, which are widely used for observation, assessment, and forecasting of anthropogenic processes.



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