

## **Natural science education as an aspect of the roadmap for addressing sustainable development issues**

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The process of Ukraine's accession to the European space and the signing of the Bologna Convention provides for the modernization of the higher education content, a change in its philosophy. The higher school faces the task of training a new generation of professionals who should meet today's requirements. Natural science education has great potential to directly address sustainable development issues and environmental issues.

The purpose of research is the creation of an effective didactic system through the integrated approach of a natural education for example of water security course with a special emphasis on professional orientation. Methods of the analysis, synthesis of knowledge, educational experiment, and mathematical statistics were used for the fulfillment of the purpose.

The study is implemented by Programme EU Erasmus+ Jean Monnet Activities as part of the interdisciplinary European studies in Petro Mohyla Black Sea National University. The effective didactic system of interdisciplinary knowledge of natural-science courses, namely the water security course, was created.

The teaching course for Master's students in Environmental Science covers the main topics, such as water resources, water quality, climate change, integrated water management, water policy and law issues. The course constructs on the interdisciplinary basis and covers key elements of the strategy for sustainable development and European experience in the field of the environmental water resources policy. The course is interdisciplinary and connects the policy and tools of water monitoring and management, principally addressing EU and Ukraine practices of water quality, water resources, biodiversity, and fisheries, and their progressive integration.

In the process of forming students' knowledge, the tendency to increase their educational activity, interest in carrying out independent scientific research, in expressing original views on environmental issues discussed during classes was determined. The coefficient of completeness of knowledge was evaluated. It is proved that the selected educational material is quite fully assimilated by students, as evidenced by the average coefficient of 0.85.

The prospect of further research activities is to improve the theory and practice of the integrated study of natural courses based on the developed conceptual provisions of the education content integration, and also to improve the methodology of assessing the quality of students' knowledge during the study of integrated courses.