CRITERIA OF THE ESTIMATION OF GRADUATED PREPARATION FUTURE ENVIRONMENTALIST

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Abstract

The article presents the levels learning environmental knowledge and skills formation of future ecologists.

Key words: educational, criterion levels of knowledge and skills, future ecologists.

KRITÉRIA ÚROVNĚ ZNALOSTÍ A DOVEDNOSTÍ V PŘÍPRAVĚ BUDOUCÍCH EKOLOGŮ

Resumé

Článek představuje úroveň vzdělávání environmentálních znalostí a dovedností tvorby budoucích ekologů.

Key words: vzdělání, kritérium úrovně znalostí a dovedností, budoucí ekologové.

Considering general ecological forming stage preparation as multylayered and interrelated process in the course of which are realized: selection, systematization and interpretation to scholastic scientific information; the perception, realization, re-comprehension her (it); efficient and effective mastering and use modern new scholastic and scientific information, shaping and development characteristic and quality to personalities necessary in future professional activity. A systematic approach to determining criteria for assessing graduate training.

In determining the criteria for assessing the total environmental component of the staged training, relied on the scientific definition of the essence of the term "criterion" and on the criteria which were offered in various scientific studies.

Criterion (from the Greek - product judgments) - a measure for the measurement of the object, phenomenon, classification features.

The criteria for evaluation of stage the preparation of future environmentalists identified: the level of assimilation of environmental awareness and realization of their social and ecological order; level of development of skills in environmental research activities, the level of understanding of environmental education information, the level of environmental behavior and its professional legal and technical regulation (standardization); motivation study environmental sciences.

To determine the level of assimilation of ecological awareness and realization of socio-ecological order and the formation skills in the ecological research activities, which should have a future environmentalists suggested a concept of education and skills in accordance with the levels of education and skills formation (Table 1).

Ecological thinking is an important criterion of stage preparation , as implemented in the new relations, acquiring a new quality, new concepts conscious in synthesizing new features, new content, leading to understanding the ecosystem, which in turn forms a stepwise training of future ecologists. To determine the level of understanding of the ecosystem of information, the following levels of education (Table 2).

Table 1. Levels of learning environmental knowledge and skills formation of future environmentalists

Levels of adoption and implementation of environmental knowledge in their social and environmental order		Levels of skills in ecological research activities	
Levels	Qualitative description of the level of learning	Levels	Qualitative description of formation skills
Conceptual	Reproduction of conceptual and categorical information on ecological processes, phenomena, objects of the environment, their properties, methods, ways and means of diagnosis of environmental quality parameters and environmental security	Reproductive	The ability to virtually reproduce ecological research and development to find optimum conditions based on environmental research - methods, techniques, methodology of scientific recommendations, guidelines, standards
Fundamental	Knowledge of ecological theory, systems theory in ecology, laws, rules, principles, relations between social and natural environmental systems, their properties, methods and ways of environmental activities that are required to adopt and implement theory-based environmental solutions and social-economic development of the ecological safety of society and nature	Heuristic	Ability to solve generally accepted environmental objectives through their own choice and the application of information and logical methods, tabular-graphic analysis, heuristic and prognostic evaluation of modern methods and environmental condition and provided the development environment and society in the crisis, current and future conditions
Applied	Knowledge of ecosystem analysis of society-nature, production sector (agro-,urbo-, techno-), monitoring, auditing, passportization, industrial or economic expertise of professional ecological activities, mechanisms and functions of ecological management, standardization, certification, licensing, labeling, modeling and forecasting progress of environmental	Creative	Ability to solve environmental objectives through the application of modern methods of automatic control of the environment in a future civilization development, system analysis of environmental quality, GIS environment monitoring, automated forecasting and mathematical modeling of future development and social and natural systems

Table 2. Level of the development eco-systems thinking at Informatization of education

Levels	**Qualitative characterization level of ecosystem understanding**
Recognition	Comprehends detect, identify, acquire knowledge possessed by the interaction of the environment - social and industrial activity, the general idea of the objects, phenomena, processes
Memorization	Remember learned knowledge in concrete facts, scientific hypothesis, theory, relying on own memory
Understanding	Intentionally transfer of learned knowledge in their own words to demonstrate their own conclusion, interpret, demonstrate ideas, predict the results, get yourself up to date information, the current state of ecologecal emergency
Carry	Sensible systematic analysis of cause-effect interdependencies, logical reasoning, and creative synthesis of information
Expert conclusion	Diagnostic evaluation judgments about the significance of ideas produced, selected methods developed adequate mechanisms for compliance findings establish the effectiveness of features for classification criteria adopted for the development of ecological situations, to predict, prevent, eliminate

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