

# STUDYING THE FUNDAMENTALS OF ECOLOGY AND FORMATION OF ENVIRONMENTAL LITERACY AMONG THE PRE-UNIVERSITY STUDENTS OF THE EDUCATIONAL INSTITUTION BELARUSIAN STATE MEDICAL UNIVERSITY

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**Annotation:** in this article, authors discuss teaching pre-university students at the Faculty of Career Guidance and pre-University Training of the educational institution Belarusian State Medical University. The issues of the curriculum for full-time pre-university students, the methodology of training, the aims of teaching ecology in the context of ecological problems of mankind are discussed.

**Keywords:** medical biology, ecological literacy, environmental literacy, teaching ecological disciplines in English, medical ecology.

At the present time, humanity faces numerous global environmental problems: climate change; overpopulation of the planet; reduction of species diversity; ozone depletion; environmental pollution, deforestation, irrational consumption of natural resources, the use of chemical and toxic substances, heavy metals, radioactive substances.

It should be noted that environmental problems are linked to other global world problems, they affect each other and the emergence of some leads to the emergence or exacerbation of others. Environmental problems are crisis situations and their resolution is possible only with the participation of all mankind.

At the Faculty of Career Guidance and pre-University Training of the educational institution Belarusian State Medical University full-time pre-university students study the discipline "Biology" which is delivered by lecturers of Biology Department. The purpose of teaching the discipline is to prepare potential applicants of the university for centralized testing which is the university entry examination in the Republic of Belarus [1]. At the examination in Biology, the applicant must: comprehend the basic biological terms and concepts, biological laws and theories; know and understand the general laws that occur in nature; be able to explain causal relationships between the adaptations of living organisms and their environments, effect of human activities on the nature and their consequences, and be able to solve biological problems.

At the practical classes and lectures, the students deal with the following issues of the curriculum: Ecology as a science; environmental factors; ecological groups of plants and animals in relation to the light regime; adaptation of plants and animals to different temperature conditions, ecological groups of plants in relation to moisture; adaptation of plants and animals to different water regime; environments and adaptations of species to them; connections of organisms in biological community; ecological pyramids; the main problems of the biosphere caused by activities of human (environmental pollution, depletion of natural resources, desertification); the scale of violations (local, regional, global); the threat of environmental disasters and their prevention; nature protection and rational nature management, restoration of natural resources and the environment. Much attention is paid to the methods of solving environmental problems [2]. In the opinion of the lecturers of the Biology Department, an important task of training the discipline "Biology" is ecological education and formation of ecological culture – the system of knowledge, skills, values of the person, his beliefs, traditions, customs, laws, morals, responsibility for the made decisions in system "the person – environment". This includes formation of ecological thinking, ecological knowledge, ecological culture. The study of these sections is allocated 4 hours of lectures, 39 hours of laboratory classes (9,6 % of all hours of the curriculum), which is clearly not enough to form enough environmental competencies of students.

## BIBLIOGRAPHY

1. *Бутвиловский, В. Э.* Изучение биологии на подготовительном отделении БГМУ как фактор успешной сдачи централизованного тестирования / В. Э. Бутвиловский [и др.]. // Военная медицина. – 2016. – № 1. – С. 2 – 4.

2. *Бутвиловский, В. Э.* Методология преподавания и изучения биологии на подготовительном отделении БГМУ / В. Э. Бутвиловский, Т. Г. Романова, А. В. Бутвиловский, Н. А. Семененя // Актуальные проблемы довузовской подготовки: материалы 1-й науч.-метод. конф. преподавателей факультета профориентации и довузовской подготовки / под. ред. А. Р. Аветисова. – Минск: БГМУ, 2017. – С. 32 – 35.