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Research Article

# MODEL OF PROFESSIONAL KNOWLEDGE AND SKILLS **DEVELOPMENT OF STUDENTS IN BIOCHEMISTRY IN MEDICAL** HIGHER EDUCATION INSTITUTIONS

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#### **ABSTRACT**

This article talks about the model of development of students' professional knowledge of biochemistry in higher medical educational institutions, pedagogical features of formation of preparation for professional activity. The most important goal of education in the healthcare system is to provide the professional not only with the necessary training, but also with the base of skills and competences to continue developing throughout his professional life.

#### **KEYWORDS**

Biochemistry, medicine, knowledge development model, integration.

#### INTRODUCTION

Decree of the President of the Republic of Uzbekistan No. PF-5590 of December 7, 2018 "On comprehensive measures to fundamentally improve the healthcare system of the Republic of Uzbekistan", No. PQ-2909 of April 20, 2017 Decision "On measures for further development of the higher education system", PQ-2956 dated May 5, 2017, similar to "On measures for further reform of the medical education system in the Republic of Uzbekistan" and taking into account the

decrees, in the teaching of basic sciences in medical education, especially biochemistry, multidisciplinary field of science, occupies a central place among other physiological sciences. Knowledge of molecular biochemistry and new clinical and molecular biochemistry methods are essential for correct diagnosis of many diseases. Although the main goal of traditional biochemistry courses is for students to memorize certain mechanisms and chemical

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structures, this concept is changing today with new teaching tools and methods.

The developed structural model of the development of students' professional knowledge in biochemistry is one of the comprehensive, integrated and dynamically developing systems, which consists of the following components: goals, tasks, directing the students of the medical higher education institution to the development of creative abilities and the quality of education The principles developed in this way and the external and business factors that affect such situations are in harmony with the content of education, forms of development, its means, development steps and results of the quality of education.

Analysis and results. In scientific research, the model mainly serves to achieve the effectiveness of the pedagogical process and the result. The effective organization of the model for the development of professional knowledge in biochemistry is interrelated with the selected approaches and conditions.

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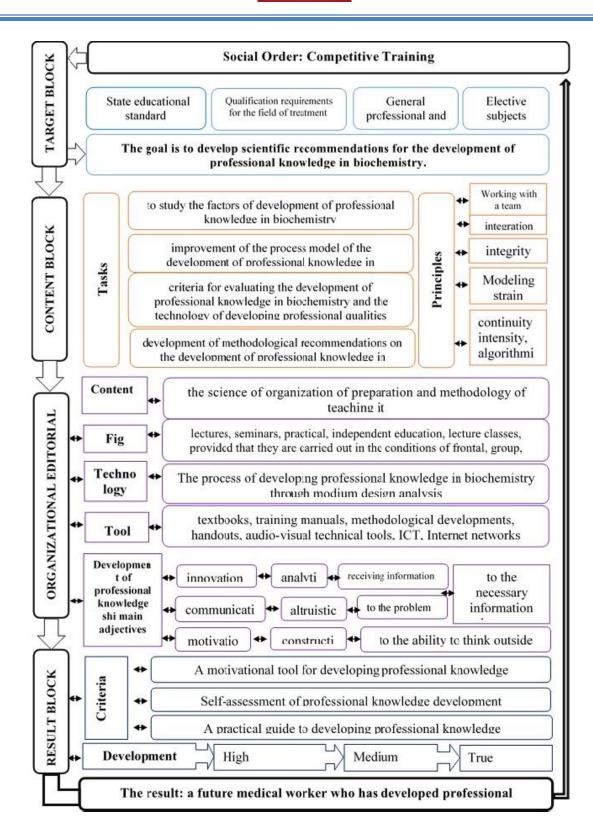








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#### 1-picture. Model of development of professional knowledge in biochemistry

The organizational structure of the model consists of purposeful, meaningful, organizational pedagogical and result blocks:

target block - the structural structure of the model elements is the basis of the studied process;

social order - competitive personnel training;

in the process of analysis of scientific research and observations, it was found that the model of developing professional knowledge in biochemistry, improving methodical preparation for developing professional knowledge based on problem-based education includes four functionally existing structures. It covers the development of students' creative qualities based on problem-based education based on the state educational standard, qualification requirements, general and specialized subjects, elective subjects.

Target block - development of professional knowledge in biochemistry consists of developing scientific recommendations.

Content Block- in the model we defined the following tasks:

- to study the factors of development of professional knowledge in biochemistry
- improvement of the process model of the development of professional knowledge in biochemistry.
- criteria for evaluating the development of professional knowledge in biochemistry and improving the technology of developing creative qualities.
- development of methodical recommendations on the development of professional knowledge in biochemistry.

The main principles of the model of development of professional knowledge in biochemistry:

the principle of development of professional training in the medical higher education system is the guiding principle of education, which expresses the need to combine the goals of society and the individual, determines the priority of universal values and the development of professional knowledge biochemistry;

the principle of mutual integration of sciences sciences refers to the unity of academic sciences (psychology, edagogy, philosophy and specialist sciences) develops professional knowledge of biochemistry;

the principle of incarnation – professional training in classes ensures the unity of all components in classes (educational process, preparation and educational work)"

modeling principle – It is based on the fact that the process of developing professional knowledge should have models of situations that reflect real militaryethical, professional and service problems.

the principle of rroredeutics - implies implementation of the rroactive nature of teaching, discussion of possible situations in the development of professional knowledge of biochemistry;

the principle of adapting the educational process to the personality of the pedagogue in the development of professional knowledge in biochemistry.

In the life outside the higher medical educational institution, future medical workers belong to the type of activity, learn them, learn social experience. For the effectiveness of the educational process, it is necessary to ensure the integration of educational

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content and other types of activities mastered by future medical professionals;

the principle of organizing teaching activities in the management of various pedagogical and educational processes – it is a link between educational activities, the content of educational materials. communication among future medical workers, which leads to the promotion of future medical workers from one level of education to another. The structure of the teacher's activity, first of all, the methods and order of activity should be related to the methods and order of the activity of future medical workers. When designing the educational process, the systematic compatibility of the activities of the subjects fulfills the regulatory requirement;

the principle of individuality in the educational process - directed to the organization and management of the educational process in which future medical workers will implement their project. At the same time, his characteristics, including professional orientation, motivation, pedagogical skills, character, behavior, mental states, personality traits, selfawareness, personal style, creativity, etc. ladi In the development of professional and pedagogical knowledge, the teacher develops the teaching process taking into account the fact that he must implement it;

the principle of designing psychological support - the principle of favorable psychological climate. In the educational process, the psychological climate plays an important role in the development of positive learning motivation. This principle requires participants to acquire social skills aimed at mutual communication during the educational process;

#### **REFERENCES**

- Asatullo O'g'li **PEDAGOGICAL** Τ. D. 1. **POSSIBILITIES FOR TEACHING BIOCHEMISTRY BASED** ON AN INTEGRATIVE **APPROACH** //Current Research Journal of Pedagogics. - 2024. - T. 5. – №. 01. – C. 26-30.
- Келдиёрова Ш., Тошмуродов Д., Аликулов 2. Б. Обзор современных исследований по ферментативному гидролизу лигноцелюллозосодержащего сырья //Вестник науки. – 2020. – Т. 1. – №. 3 (24). – C. 96-102.
- Asatullo ug'li T. D., Uzakovich J. M., 3. Kenjayevich B. A. Study of Changes in Calciferol in Eggs in Depending on the Season of the Year //Middle European Scientific Bulletin. - 2022. - T. 24. - C. 310-314.
- Asatullo O'g'li T. D. CRITERIA AND FACTORS OF TEACHING BIOCHEMISTRY ON THE BASIS OF AN INTEGRATIVE APPROACH IN MEDICAL **EDUCATION** HIGHER INSTITUTIONS //International Scientific and Current Research Conferences. - 2024. - C. 3-6.
- Saidmurodova Z. 5. 5. **«OVQATNING** Toshmurodov. MEXANIK HAZM QILISH JARAYONLAR». Евразийский журнал медицинских и естественных наук, т. 2, вып. 5, май 2022 г., сс. 101-3, https://in-

academy.uz/index.php/EJMNS/article/view/ 1619.