

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ БІОРЕСУРСІВ
І ПРИРОДОКОРИСТУВАННЯ УКРАЇНИ



Матеріали Міжнародної науково-практичної конференції

**ПРОДОВОЛЬЧА ТА ЕКОЛОГІЧНА БЕЗПЕКА
В УМОВАХ ВІЙНИ ТА ПОВОЄННОЇ ВІДБУДОВИ:
ВИКЛИКИ ДЛЯ УКРАЇНИ ТА СВІТУ**

*присвяченої 125-річчю Національного університету
біоресурсів і природокористування України*

**Секція 4. Якість освіти та гуманітарна наука в умовах війни
та глобальних викликів**

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У збірнику подано результати обговорення актуальних проблем, перспектив і шляхів забезпечення продовольчої та екологічної безпеки в умовах війни, плану відновлення України, сталого розвитку світу в контексті глобальних і регіональних викликів, трансформації суспільства та формування нової парадигми розвитку.

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**PREPARING STUDENTS TO FORM CUSTOMIZED EDUCATION
PROGRAM FOR THEIR FUTURE**

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Current trends including globalization, digitalization, informatization, computerization, etc., dictate new requirements for the forms, content and delivery methods of education. Education in the form of acquiring knowledge is replaced by the form of acquisition of competences. The actual principle of the quality and level of education is the competence approach, and in the field of providing educational services - the student-centered approach [1] .

The purpose of this work is to share the discussion regarding the trajectory of student' education with the necessary competencies for future professional activity, taking into account the student-centered approach to the educational process systems thinking required to solve complex problems, and dynamic optimization methods.

A set of necessary competencies is mandatory for the formation of a high-quality, competitive graduate. A competency-based approach in education supports the mastery of basic skills and competencies to form professionally qualified employees. This approach is characterized by student-centered learning. This concept includes, according to modern scientists, not only the achievement of educational goals important for the student in educational activities, but also self-

development and various types of extracurricular activities, which allow the student to reveal those abilities that will be important to him in the future and to his liking [2].

Individual educational activity transforms a student from a passive "receiver" of educational services into a subject of their definition and ordering. With this approach teachers assume the role of a manager of the learning process and adviser of students regarding the selection of information, its sources, the organization of adequate educational situations, and the elimination of identified gaps in order to master the necessary competencies, systematization and improvement of knowledge. For this, it is necessary to analyze the education program and the curricular of theoretical basic disciplines, which are a necessary component for obtaining fundamental knowledge of the future specialist. On the other hand, in order to obtain the necessary competencies of the future specialist, it is extremely important to determine the elective disciplines that are determined by the future specialty. The specified approach is the basis for creating an individual educational trajectory for the student.

Therefore, the student has the opportunity to choose one or another of the disciplines according to his own desire and future profile. Students may choose to combine multiple disciplines to address complex cross-sectoral problems they aspire to impact. Students should be prepared to learn "anytime, anywhere," meaning that student learning can take place outside of traditional classrooms, such as through online course programs, through experiential education, or at non-traditional times, such as at night and on weekends. This implies that teachers may need to show greater flexibility in managing the learning process and that their work may involve flexible working hours and online work.

To create a student's educational trajectory, it is proposed to use the "Prism of Knowledge" and dynamic optimization methods [3, 4]. "Prism of Knowledge" is a virtual electronic form of visualization of a student's educational trajectory in the form of a set of screens combined into a prism. Each screen contains a set of hyperactive pictures that link to structured curriculum blocks by periods of study. If you activate the picture, a window will be loaded on the monitor screen with complete information about the training program from its beginning with a set of accompanying materials: electronic textbooks, training courses, presentations, etc.

The practical implementation of the step-by-step principles of building and installing educational programs in the "Prism of Knowledge" is based on the "Web-Software Complex – Editor of Learning Trajectory Scenarios". It has a wide format of use, from the creation of personalized educational programs to transdisciplinary ones - which ensure the unification of students in study groups by courses, departments and colleges. Its functionality provides the user with a toolkit with dynamic optimization methods, provided for building various scenarios of the optimal learning trajectory taking into account innovations and future professional activities, with its storage on the server or local device.

Thus, high-quality training of specialists is impossible without a thorough analysis of needs regarding the direction of their future professional activity [5]. This can be achieved by individual selection of the learning trajectory, its optimization based on the "Prism of Knowledge" with the "Web-Software Complex – Editor of Learning Trajectory Scenarios".

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