

technical means); *identifying* (to distinguish files of individual students and check their implementation); *consolidating* (for setting up for joint work) *managerial* (searching for optimal forms and methods of teaching so that students do not experience problems and discomfort).

So, the online education is just beginning to gain momentum in his development. It can be completely rejected it is necessary to look for ways to improve. And all this depends not only on teachers but also on top managers who constantly offered a new opportunities for various online learning platforms.

**Tetiana Borysova,**

*Candidate of Pedagogical Sciences, Associate Professor,  
Associate Professor of the Department of the Fundamentals of Production and Design,  
Poltava V.G. Korolenko National Pedagogical University, Poltava, Ukraine*

**Nataliia Orlova,**

*Assistant of the Department of the Fundamentals of Production and Design,  
Poltava V.G. Korolenko National Pedagogical University, Poltava, Ukraine*

**Olena Usenko,**

*Assistant of the Department of Humanities, Culture and Art,  
Mikhail Ostrogradsky Kremenichug National University, Kremenichug, Ukraine*

## **FEATURES OF DESIGNING A DISTANCE PRACTICAL COURSE FOR HIGHER EDUCATION STUDENTS**

**Keywords:** *distance learning in higher education institutions, problems of practical distance learning, features of designing a distance course of the discipline «Technical Aesthetics and Ergonomics».*

Distance learning is becoming particularly important in the context of a global pandemic. Electronic learning tools are developing rapidly, diversifying the forms of switching communication between teachers and students. The biggest problems in the

organization of distance learning are experienced by technical academic disciplines and practical training. The study of technical academic disciplines involves the integration of a set of knowledge on the basics of science and tangential courses, mastering the methodology of conducting experimental research and measurements. Practical training is associated with the need to form practical skills in working with technological equipment and tools, mastering technological operations in real educational and production conditions. The solution of these problems requires the design and implementation of new methodological teaching systems in the educational process, which would be appropriate to combine traditional and modern pedagogical technologies, including information and communication technologies [1]. One of the areas of solving urgent problems is mixed learning, which involves a combination of theoretical distance learning and traditional practical training.

A distance learning course is a teacher's planned learning activity for processing and assimilating structured information. Mixed learning involves the implementation of a new approach to the reproduction of the traditional educational process by including such forms of conducting and implementing educational activities as communication, cooperation, co-creation, independent work and constant self-improvement of all participants in the educational process, provided comprehensive technical support by means of information and communication technologies [2].

MOODLE, Google Classroom, Zoom, Microsoft Teams, Google Meet, Skype, ClassDojo, Classtime, LearningApps.org, etc. are the most widely used platforms for distance learning [3].

Designing a distance course involves a detailed development of the course structure, defining its goals and objectives (both in general and with concretization on individual topics), outlining the prospects for forming program learning results and competencies of higher education applicants in accordance with the educational program. When forming the educational goal and objectives, it should be remembered that these didactic categories should be aimed at implementing the educational activities of applicants for higher education, and in the final result of the educational process, ensure the formation of program learning results and competencies.

At the beginning of the student's work on the distance course, it is necessary to indicate the purpose of the task and the timing of educational activities. Each academic week ends with reporting on a separate topic and includes certain types of online learning activities: whether it is meetings, video lectures, practical classes or independent work tasks, presentations, discussions, master classes, gamified classes, testing, etc. A special feature of designing educational technologies in a remote format is that all tasks must be creative or scientific-search in nature. The traditional format (question and answer) is losing relevance, as the search for information on the Internet often has the character of blindly copying data without mastering and understanding scientific knowledge and the formation of skills. It is important to design such tasks in a distance course that would develop critical thinking, require preliminary analysis, divide a complex task into separate simple categories, or involve the synthesis of scientific knowledge and research from various fields.

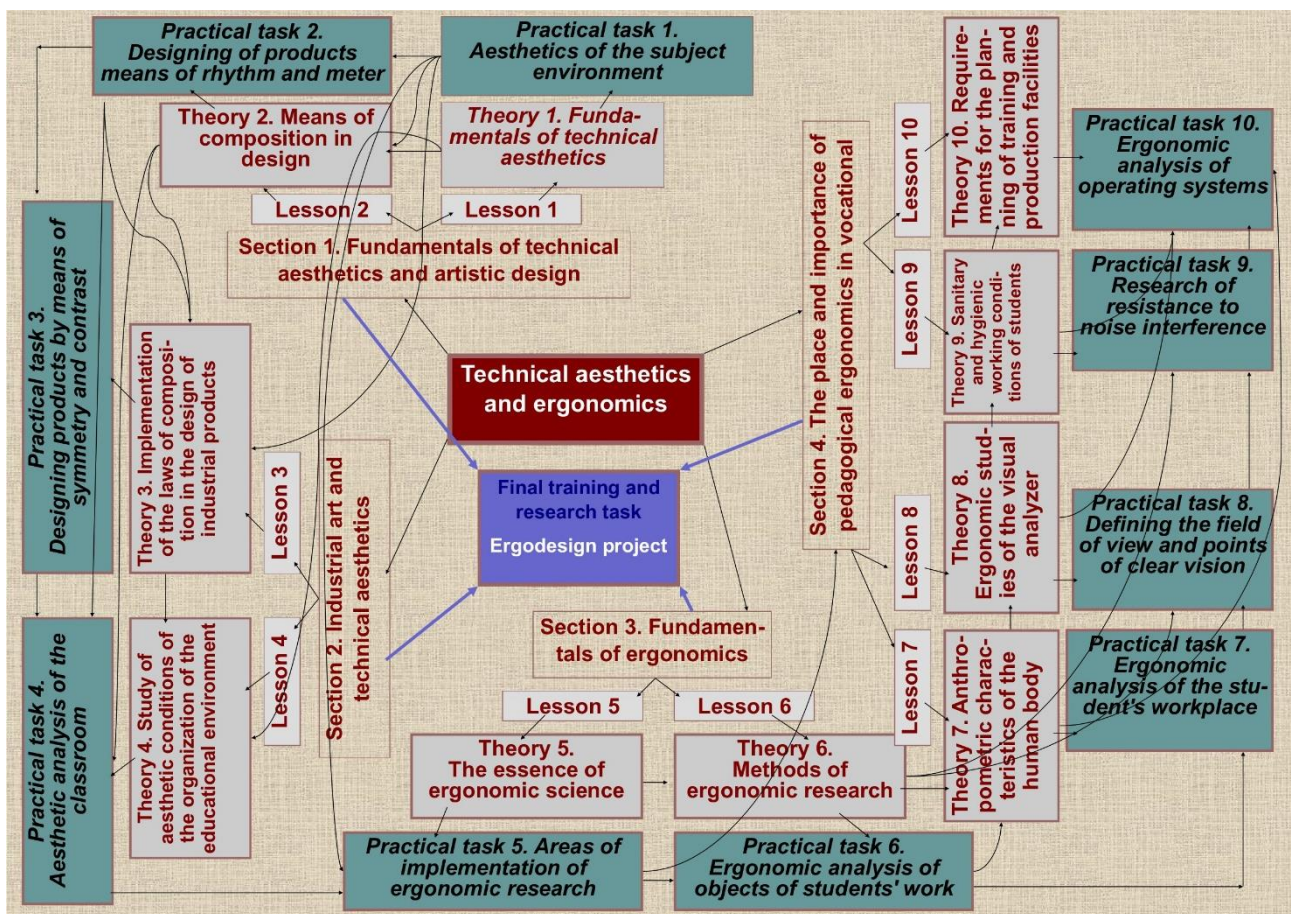


Fig. 1. Information map of the distance course of the academic discipline «Technical Aesthetics and Ergonomics»

We designed a model of a distance course of the discipline «Technical Aesthetics and Ergonomics» (Fig. 1).

The volume of the academic discipline is 4 credits (120 hours), provides for the study of four sections (content topics) and is designed for 12 academic weeks. The purpose of the discipline is to acquire the fundamentals of technical aesthetics and ergonomics as future guarantors of organizing safe work of students in educational and production workshops, creating appropriate conditions for the physical, mental, aesthetic, emotional, creative development of students' personality and preserving their health. The program of the discipline provides for the involvement of students in ergonomic research in order to identify appropriate, favorable educational and organizational forms, means, methods of conducting classes in labor and vocational training [4].

Tasks of the academic discipline:

- to get acquainted with the fundamentals of technical aesthetics and artistic design of industrial products;
- to master certain means of artistic design (color science, rhythmic and metric construction, contrast, Bionics, tectonics, stylization);
- to investigate the main theoretical and practical results of pedagogical ergonomics;
- to master the methods of ergonomic analysis of objects, processes and the environment;
- to learn how to use the means of artistic design and the results of ergonomic research in professional activities.

To complete the tasks of this course, it is necessary to mobilize basic knowledge in valeology and physiology, life safety, labor protection, basics of composition, drawing, engineering and computer graphics, materials science, technology of designing certain objects.

The structure of educational activities in the study of the course: Section 1. «Fundamentals of Technical Aesthetics and Artistic Design» (2 weeks); Section 2. «Industrial Art and Technical Aesthetics» (2 weeks); Section 3. «Fundamentals of

Ergonomics» (2 weeks); Section 4. «Place and Significance of Pedagogical Ergonomics in Professional Training» (4 weeks); «Performing an Individual Educational and Research Task» (2 weeks).

Educational activity of the student in the process of mastering the course involves familiarization with theoretical material on the distance course page; viewing video lessons and presentations; answering questions during online meetings; performing practical tasks and presenting reporting presentations; conducting research and drawing conclusions about the results; project development; participation in discussions (forums, chats); participation in the analysis and evaluation of projects. In the first week, it is necessary to show the entire work plan during the course and the criteria for evaluating all types of educational activities of students from the beginning to the end of training. Thus, students can anticipate the scope of their activities in the course and focus on achieving the desired learning result. Someone performs the minimum – for enrollment, and someone wants to diligently complete all tasks – to reach the maximum.

The plan of work of students on each section provides studying of a theoretical material (2 points); performance of tasks for self-examination of mastering the theory (2 points); performing practical tasks and conducting research (2 points); analysis and evaluation of the work of fellow students (2 points); participation in the discussion at the forum (2 points).

The peculiarity of students' work in section 1 is the following practical tasks: to stylize the bioform and use it as a template to create a rhythmic and metric composition (4 points), to create a composition using different means of contrast in one work (4 points); to conduct a study of visual perception, to draw up the results of the study (4 points). The peculiarity of the work of students in section 2 is the performance of the following practical tasks: to form a static three-dimensional composition by means of symmetry (4 points), to create a dynamic three-dimensional composition by means of asymmetry (4 points); to conduct a study of aesthetic working conditions of students, to argue and to draw up the results of the study (4 points); take part in a «press conference», which presents and discusses the results of aesthetic evaluation of the

educational premises, which is set by the teacher for each student separately (2 points). The peculiarity of the work of students in section 3 determines the following practical tasks: to develop a presentation on the results of ergonomic research in various areas of human activity, which are selected by students independently from the indicative list (4 points); to conduct a study of resistance to noise interference of students in the perception and processing of operational information, to argue and to draw up the results of the study (4 points). In section 4, students perform the following practical tasks: to perform ergonomic analysis of student work objects (4 points), to conduct ergonomic analysis of the technological process for the manufacture of a particular object (4 points), to carry out an ergonomic analysis of the organization of work of students in the workplace (4 points); to conduct research on ergonomic requirements of operating systems or equipment (4 points).

An individual educational and research task is formulated separately for each student and provides for the design, planning and equipment of the educational premises (comfortable workplaces for students, for teachers, for reflection) and justification of the presented visualization of the educational premises. The defense of individual projects takes place in the format of a video conference, which takes into account the activity of each student in analyzing the submitted projects. Individual works are evaluated at 10 points.

Final control can be carried out in the form of programmable testing or in the format of oral communication with the teacher on the list of questions for final control using remote resources at a convenient time for the student and teacher by prior agreement, but not later than the deadline for final control in this academic discipline determined by the schedule of the educational process.

We design the following training results in the discipline «Technical Aesthetics and Ergonomics»:

- to design products in compliance with the means of composition and ergonomics;
- to conduct ergonomic studies of anthropometric and physiological capabilities of students,

– to perform an ergonomic analysis of operational systems, the technological process for manufacturing a particular product and organizing the educational environment,

– to organize the educational process in workshops, taking into account the requirements of ergonomics and ensure proper sanitary and hygienic working conditions for students.

By designing distance learning technologies in this discipline, we have minimized the need for special equipment and devices for conducting research. All tasks for students can be completed independently. The theoretical block includes a demonstration of experiments using special equipment. However, the opportunity to work in a specially equipped laboratory expands and deepens the professional competence of higher education applicants. This approach can only be implemented by agreeing on the time for individual work in the laboratory of students. Consequently, mixed training on compliance with security measures in the context of a pandemic would provide a significantly higher level of practical and technical training.

### **List of references**

1. Zhaldak, M.I. (2003) Pedagogichnyi potentsial kompiuterno oriietovanykh system navchannia matematyky [Pedagogical Potential of Computer Oriented Mathematics Teaching Systems]. *Kompiuterno oriietovani systemy navchannia: Zb. nauk. Prats*, Kyiv: NPU imeni M.P. Drahomanova, vol. 7, pp. 3–16.

2. Kukharenko, V.M. (ed.) (2016) *Teoriia ta metodyka zmishanoho navchannia: monohrafiia* [Theory and Methods of Mixed Learning: a monograph]. Kharkiv: «Miskdruk». (in Ukrainian)

3. Bykov, V.Iu., Bohachkov, Yu.M., Kukharenko, V.M., Syrotenko, N.H., Rybalko, O.V. (2008) Technology for creation of a distance course. Kyiv: Milenium. (in English)

4. Borysova, T.M. (2020) *Erhonomichna pidhotovka maibutnikh vykladachiv zakladiv profesiinoi osvity : monohrafiia* [Ergonomic Training of Future Teachers of

Vocational Education Institutions: a monograph]. Poltava: PP «Astraiia». (in Ukrainian)

**Angela Boyko,**

*Professor, Full Doctor, Head of Department of Philosophical and Political Science,  
Cherkasy State Technological University, Ukraine*

**Igor Sinegub,**

*postgraduate student, Department of Philosophical and Political Science,  
Cherkasy State Technological University, Ukraine*

## **HIGHER EDUCATION AS A FACTOR OF NATIONAL HUMAN SECURITY**

*Key words: education, national security, humanitarian security.*

National security has an ontological (existential dimension), which consists in the physical-event plane. Ensuring national security has an epistemological-idealistic dimension, which consists in the formation of the humanitarian direction. In our opinion, the importance of humanitarian security lies in the fact that it is formed by external factors, but is realized through the assimilation of consciousness, when national beliefs and ideals become an awareness of their own identity and responsibility for state security. The importance of humanitarian security is relevant in modern conditions when there are many facts of violation of the integrity of borders and annexation of certain territories. However, the humanitarian security of the state has such social challenges as globalization, massification, unification. The main goal of humanitarian security, in our opinion, should be the consolidation of the state, the formation of a national identity.