

UDC 378.147:159.9:004

DOI: <https://doi.org/10.32342/3041-2196-2025-2-30-20>

**O.O. LAVRENTIEVA,**

*Doctor of Sciences in Pedagogy, Full Professor,  
Head of the Department of Pedagogy,  
Kryvyi Rih State Pedagogical University (Kryvyi Rih, Ukraine)  
<https://orcid.org/0000-0002-0609-5894>*

## TRAINING FUTURE PSYCHOLOGISTS TO UTILISE DIGITAL TECHNOLOGIES IN ACADEMIC AND PROFESSIONAL ACTIVITIES: CONTEMPORARY APPROACHES AND EDUCATIONAL PRACTICES

Статтю присвячено концептуалізації досвіду викладання курсу «Інформаційні технології в сучасному соціумі», спрямованого на формування базового рівня готовності майбутніх психологів до використання цифрових технологій в академічній та професійній діяльності. Актуальність дослідження зумовлена цифровою трансформацією суспільства, що істотно змінює соціальні середовища, формати комунікації та характер професійної діяльності психолога, актуалізуючи потребу в оновленні змісту фахової підготовки.

У статті обґрунтовано доцільність переходу від інструментально-технічного розуміння цифрової підготовки до змістово-професійного підходу, орієнтованого на осмислення цифрових технологій як соціально й психологічно зумовлених феноменів. Розкрито логіку побудови курсу, його модульну структуру та змістові лінії, що охоплюють використання цифрових технологій у професійній та академічній діяльності психолога, аналіз психологічних аспектів цифрової трансформації, а також нові виклики сучасної психологічної практики.

Описано методичні підходи до реалізації курсу, зокрема поєднання пояснювально-аналітичних, діяльнісних, кейс-орієнтованих і проєктних методів навчання, а також використання формувального оцінювання й рефлексивних практик. Показано, що така організація навчальної діяльності сприяє розвитку здатності студентів критично працювати з інформаційними потоками, усвідомлено застосовувати цифрові інструменти, самостійно опановувати нові технології та оцінювати межі їх використання в професійній діяльності психолога.

Узагальнення результатів рефлексивного аналізу навчальної діяльності студентів засвідчило ефективність запропонованого підходу та доцільність гнучкого оновлення змісту курсу з урахуванням динаміки цифрового середовища і професійних запитів майбутніх психологів. Окреслено перспективи подальших науково-методичних досліджень, пов'язаних із поглибленням цифрової підготовки фахівців у контексті розвитку технологій штучного інтелекту, експертних систем, віртуальної та доповненої реальності у сучасних умовах професійної діяльності.

**Ключові слова:** підготовка майбутніх психологів, професійна діяльність психолога, цифрові технології, цифрова трансформація, фахово орієнтовані курси, освітні практики.

**Problem statement.** The digitalisation of social life significantly transforms the conditions of psychologists' professional activity by expanding the range of digital environments, modes of interaction, and technological tools used in academic and professional contexts for learning, research, communication, and the provision of psychological support. In this regard, the training of future psychologists to utilise digital technologies in professional activity acquires particular significance and can no longer be reduced to the mastery of individual software tools or technical skills related to digital resources. The OECD report *Education in the Digital Age* emphasises that digital technologies in education should be regarded not merely as tools for optimising the educational process, but as a factor transforming



professional roles, ways of thinking, and models of interaction [OECD, 2020], which necessitates a reconsideration of the content of future specialists' training, including that of psychologists.

At the same time, in the practice of professional training, the informatics component is often implemented fragmentarily through the integration of digital tools into the content of various academic disciplines for the purpose of completing individual learning and research tasks, preparing materials, or organising educational communication. Such an approach complicates the formation of a holistic understanding of digital technologies as a factor in the transformation of social environments, the emergence of digital barriers, technophobia, and new types of social interaction, all of which directly affect the nature and outcomes of psychologists' professional activity.

Under these conditions, the problem of substantiating the content of curricular components capable of ensuring the systemic and professionally oriented training of future psychologists becomes particularly relevant. This also includes establishing meaningful links between digital technologies and psychological knowledge, specifically the achievements of cognitive, engineering, and organisational psychology, as well as contemporary developments in the fields of artificial intelligence, immersive technologies, and information and cognitive technologies.

**Analysis of the latest research and publications.** The continuous and large-scale process of digital transformation of the economy and society has given rise to a range of new phenomena, including the emergence of digital humanities as an interdisciplinary field of knowledge, within which digital philosophy and digital psychology are taking shape. In this context, digitalisation has resulted not only in the technological modernisation of psychologists' professional practice but also in a substantial expansion of the disciplinary scope of psychology as a science. The proliferation of digital environments, networked forms of interaction, and mediated modes of communication has intensified scholarly interest in new patterns of behaviour, identity construction, social relationships, and the dynamics of mental processes within digital spaces.

M. Littikh conceptualises digital technologies as a driver of fundamental changes in psychological science and education, emphasising the transformation of empirical research methods through the use of passive digital traces, behavioural analytics, machine learning algorithms, as well as VR and AR environments. The application of such tools facilitates a shift from static models of psychological phenomena towards dynamic, data-driven, and context-sensitive approaches [Літтих, 2025], thereby foregrounding new professional functions of psychologists related to the interpretation of digital data, the assessment of manipulation risks, the protection of privacy, and adherence to ethical standards in working with digital information [Bell et al., 2020].

The theoretical foundations of these developments are rooted in cognitive psychology, within which information-processing models and studies of attention, memory, thinking, and decision-making were established, forming the basis for the development of intelligent systems, adaptive interfaces, and digitally mediated tools. In turn, engineering psychology has ensured the practical implementation of these principles in the design of human-centred technologies, including virtual and augmented reality environments, digital simulations, immersive learning settings, and professional training systems [Lavrentieva & Shabanov, 2023]. Within this framework, the education of future psychologists acquires an explicitly interdisciplinary orientation and necessitates the integration of fundamental psychological knowledge with an understanding of the operational logic of digital technologies and their impact on professional practice.

Contemporary psychological research increasingly focuses on the use of digital data in diagnostic and counselling contexts. In particular, C. Montag and Y.-J. Rumpf highlight the potential of digital phenotyping and mobile sensing for the analysis of mental states, which broadens the scope of psychological assessment while simultaneously imposing new requirements on the professional training of psychologists with regard to data handling, result interpretation, and critical evaluation of technological solutions [Montag & Rumpf, 2021].

A distinct group of studies focuses on the use of artificial intelligence technologies in psychological practice. Research by C. Blease and colleagues emphasises that AI cannot be regarded as a substitute for the psychotherapist; however, it is capable of performing supportive functions, particularly in data analytics, the automation of routine procedures, and initial interaction with clients [Blease et al., 2020]. Nevertheless, the digitalisation of psychological practice is accompanied by a range of ethical challenges related to confidentiality, data security, and the boundaries of professional responsibility, which necessitates specialised training

of practitioners for work in online formats [Stoll, Müller, & Trachsel, 2019]. Synthesising the findings of contemporary research confirms the need to conceptualise the readiness of future psychologists to use digital technologies as an integrated characteristic of professional training [McDonald & Schweinsberg, 2025; Ruzek et al., 2024; Smith & Brown, 2019].

As noted by A. Leonova and M. Sliusarenko, the readiness of future psychologists to employ digital technologies cannot be reduced to proficiency in individual software tools; rather, it represents a complex configuration of personal-motivational, content-processual, and creative-communicative components which, in their interdependence, ensure the formation of crucial and anticipatory characteristics of professional activity in the context of Industry 4.0 [Леонова, Слюсаренко, 2023]. Accordingly, scholars also underline the significance of innovative approaches to the professional education of psychologists [Васильева, 2021], the renewal of the forms and content of professional training [Товстуха, Чумак, 2024], as well as the use of interactive, visualised, and immersive educational technologies [Алексеева та ін., 2025; Кравченко, Абрамян, 2025; Бердо, 2023; Бондаренко, 2024].

An analysis of primary sources reveals a substantial body of research devoted to the development of professional digital skills and the application of digital tools in the academic and professional activities of future psychologists. These studies address, in particular, the use of spreadsheet software for mathematical and statistical data processing [Іваницький, 2021; Поліщук, Грунник, 2024], the application of AI, expert systems, and immersive technologies in psychological counselling and research activity [Лебідь & Волкова, 2021; Нестеренко, 2023; Севост'янов, Клімушев, Клімушева, 2024; Lavrentieva et al., 2019], as well as the mastery of novel tools for professional communication [Matz & Kosinski, 2019].

At the same time, an analysis of educational and professional training programmes in the field of C4 / O53 Psychology indicates the presence of academic disciplines aimed at developing specific components of such readiness, particularly within professionally oriented, research-based, and methodological courses [Василенко, 2020; Сазонюк, 2021; Сірко, Вдович, 2025; Соловська, 2025].

Thus, a review of scholarly research demonstrates that the issue of employing digital technologies in the training of future psychologists is addressed from a variety of theoretical perspectives and encompasses both conceptual and applied dimensions of professional practice. However, studies in which digital technologies are conceptualised as an integral element of a coherent system of professional training for future psychologists, oriented towards the formation of their basic readiness to use digital tools in academic and professional activities, remain insufficiently represented. In this regard, particular relevance is attached to the analysis of educational experience in teaching relevant academic disciplines and to the substantiation of approaches to their renewal in response to contemporary challenges of the digital transformation of society.

**Formulation of the purpose of the article.** The purpose of the article is to conceptualise the experience of teaching the course *"Information Technologies in Contemporary Society"*, which is aimed at forming a basic level of readiness of future psychologists for the use of digital technologies in academic and professional activities, as well as to substantiate content-related and methodological approaches to its renewal in the context of the digital transformation of society.

In the process of preparing the article, theoretical **methods** of analysis and synthesis of scholarly sources on the issues of digitalisation of education, the psychology of the digital environment, and the professional training of psychologists were employed, which made it possible to outline the conceptual foundations for updating the course content. To systematise the authors' teaching experience, methods of modelling and pedagogical design were applied, aimed at substantiating the course structure, its content lines, and methodological approaches to the organisation of learning activities.

Elements of empirical reflection included an analysis of the course's educational and methodological materials, the results of students' laboratory, independent, and project-based tasks, as well as a generalisation of observations of the learning process during the delivery of the discipline. This made it possible to clarify the logic of course design, the level of task complexity, and the appropriateness of the teaching methods employed, without resorting to specialised procedures of experimental research.

**Presentation of the main research material.** The prerequisites for the substantive renewal of the course titled *"IT in Contemporary Society"* are primarily determined by changes in the social

and professional context of psychologists' activity under conditions of the digital transformation of society. Current digital technologies are no longer merely auxiliary tools of learning activity; instead, they increasingly shape the nature of social environments, modes of communication, patterns of interpersonal interaction, and ways of providing psychological support. Under such circumstances, psychologists in their professional practice engage not only with the use of individual digital tools, but also with the analysis and support of processes unfolding within digital and hybrid social spaces.

Traditionally, training future psychologists to utilise digital technologies within the structure of professional education has been oriented mainly towards mastering basic software applications and developing technical skills for working with information, in particular through the use of word processors and spreadsheet software. However, this approach increasingly fails to meet contemporary professional demands associated with the emergence of digital barriers and technophobia, the transformation of social relationships, the expansion of remote interaction formats, and the growing role of digital environments in the lives of diverse social groups [Василенко, 2020].

In this context, the need arises to update the content of digital training for future psychologists by shifting from an instrumental and technical orientation towards a content-based and professionally focused approach. Such an approach involves understanding digital technologies as socially and psychologically conditioned phenomena with their own logic of development, which exert a substantial influence on the nature of psychologists' professional activity.

At the same time, the design of the course content takes into account the fact that first-year students enter higher education institutions already possessing a basic level of digital competences. Accordingly, the course is not oriented towards practising elementary skills of working with information or individual digital tools; instead, it focuses on developing the ability to engage professionally with information flows, assess the reliability of information, critically interpret digital content, and independently master new digital tools. An important component of this training is the development of students' capacity to formulate professional requests to relevant specialists in the process of digitalising psychological counselling services and organising interaction within an interdisciplinary environment.

The goal of studying the course titled "*Information Technologies in Contemporary Society*" is to foster a high level of digital culture among students, as well as to develop practical skills and abilities for using contemporary digital technologies to address a wide range of academic and professional tasks.

Proceeding from the assumption that all modern technologies are, by their nature, informational, as they are related to the acquisition, processing, accumulation, and dissemination of information, the course "*Information Technologies in Contemporary Society*" conceptualises the content of informatics training for future psychologists within a broader social and professional context. This approach makes it possible to move beyond reducing informatics training to the mastery of individual software applications and to focus instead on forming a holistic understanding of the role of digital technologies in the academic and professional activities of psychologists. Within the course, the following content lines are identified (Fig. 1).

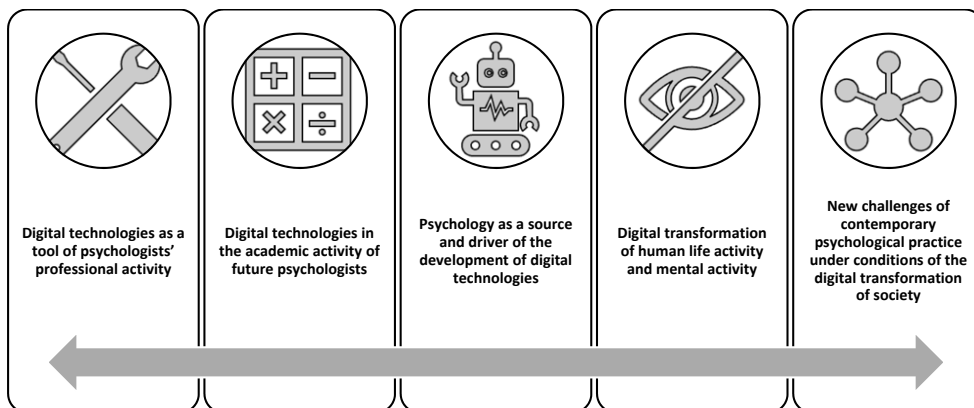


Fig. 1. Content Lines of the Course "*Information Technologies in Contemporary Society*"

The first content line is associated with the consideration of *digital technologies as a tool of psychologists' professional activity*. It is oriented towards the use of digital means for addressing typical professional tasks, including the organisation of research and surveys, the preparation of analytical materials, professional communication, and the implementation of remote formats of interaction with clients [Кравченко, Абрамян, 2025].

The second content line relates to the use of *digital technologies in the academic activity of future psychologists*. Within this line, emphasis is placed on the application of digital tools in university-based learning and research activities, work with scholarly information resources, library and search systems, the preparation of academic texts, presentations, and educational projects, as well as the organisation of educational communication within digital environments [Лебідь, Волкова, 2021].

The third content line presents *psychology as a source and driver of the development of digital technologies*. It involves familiarising students with the contribution of cognitive, engineering, and organisational psychology to the creation of contemporary digital solutions, including artificial intelligence, expert systems, and virtual and augmented reality. This perspective makes it possible to view digital technologies as the outcome of interdisciplinary scientific developments rather than merely as technical tools [Lavrentieva & Shabanov, 2023].

The fourth content line focuses on the conceptualisation of the *digital transformation of human life activity and mental activity*. Within this line, changes in social relationships, communicative practices, and forms of human interaction in digital and hybrid environments are analysed, alongside the psychological characteristics of individual functioning under conditions of constant digital presence [Соловська, 2025].

The fifth content line is associated with *new challenges of contemporary psychological practice under conditions of the digital transformation of society*. It is oriented towards recognising the emergence of new mental health problems and demands for psychological support resulting from the development of digital technologies, as well as towards broadening future psychologists' understanding of changes in the professional field and evolving requirements for professional activity [Леонова, Слюсаренко, 2022].

The content of the course "*Information Technologies in Contemporary Society*" is structured according to a modular principle and comprises three interrelated modules, each of which performs a distinct function in preparing future psychologists for academic and professional activities under conditions of the digital transformation of society. The logic of the course design provides for a gradual progression from the theoretical comprehension of information processes and digital technologies to the mastery of tools for working with information, and subsequently to the analysis of digital forms of professional interaction and emerging challenges in psychological practice. Accordingly, the content of the course is organised into three modules.

Module 1, "*Theoretical Foundations of Informatics. Information Systems*", is aimed at forming an understanding of information, information processes, and digital technologies as integral components of contemporary academic, social, and professional environments. Within this module, attention is focused on examining the role of information systems, the specific features of information circulation in digital space, and the principles underlying the functioning of the digital infrastructure of psychologists' professional activity. This provides a foundation for understanding digital technologies as an environment for professional interaction, the analysis of socio-psychological processes, and the subsequent mastery of tools for academic and professional activity.

The next stage is represented by the module "*Office Software in the Organisation of Professional Activity*", which is oriented towards organising work with textual, tabular, and structured information in academic and professional contexts. Its content focuses on the use of office and applied digital tools for the preparation of analytical materials, the processing of professionally relevant data, the creation of information products, and the systematisation of activity outcomes. This ensures a transition from a general understanding of the digital environment to the practical organisation of psychologists' information-related activities.

The course concludes with the module "*Digital Tools in Professional Activity*", which is devoted to the analysis and use of digital technologies in professional interaction, remote work, and social communication. Here digital tools are considered both as a factor in the transformation

of social environments and psychological practice, and as a space in which new professional tasks and challenges emerge. This makes it possible to synthesise the knowledge and skills acquired in the context of current changes in psychological counselling and professional activity more broadly.

The course comprises seven lectures and eight laboratory sessions, includes students' independent work, modular assessment, and a final assessment in the form of a course project defence. This organisation of learning activities ensures the integration of theoretical reflection on digital technologies with the practical mastery of tools employed in the academic and professional activities of future psychologists (see Table 1).

Table 1

Content of the Course "Information Technologies in Contemporary Society"

Course Module	Content of Lectures	Content of Laboratory Sessions	Independent Work and Assessment
<b>Module 1. Theoretical Foundations of Informatics. Information Systems</b>	<p><b>Lecture 1 "Introduction to the Course. The Concept of Information Technologies"</b>: understanding information systems, their structure, classifications, capabilities, and limitations of digital technologies, as well as the specifics of their use in psychologists' professional activity.</p> <p><b>Lecture 2 "Application Software in Psychologists' Work"</b>: analysis of classes of software products, office and specialised packages, cloud services, and mobile applications.</p> <p><b>Lecture 3 "Digital Technologies for the Digital Human"</b>: digital transformation of society, the phenomenon of the digital human, development of artificial intelligence, the Internet of Things, robotics, and NBIC technologies.</p> <p><b>Lecture 4 "Cloud Technologies in the Informatization of Professional Activity"</b>: types and models of cloud technologies, their advantages, risks, and possibilities for use in education and psychological counselling.</p>	<p><b>Laboratory Session 1 "Subject and Objectives of the Course. Microsoft Office Suite"</b>: organisation of a digital working environment, work with office software packages and network resources.</p> <p><b>Laboratory Session 2 "Artificial Intelligence Technologies in Professional and Educational Activity"</b>: working with AI tools, analysing the capabilities of chatbots, developing skills in formulating prompts and critically processing results.</p>	Independent work focused on processing professional information, reflecting on the possibilities of digital technologies, and developing algorithms for their use; modular assessment.
<b>Module 2. Office Software in the Organisation of Professional Activity</b>	<p><b>Lecture 5 "Databases"</b>: general characteristics of databases, principles of database design, and possibilities for using database management systems in psychologists' professional activity.</p>	<p><b>Laboratory Session 3 "Word Processing Software"</b>: processing texts, tables, charts, and formulas.</p> <p><b>Laboratory Session 4 "Presentations in MS PowerPoint"</b>: creation and visualisation of professionally relevant content.</p> <p><b>Laboratory Session 5 "Spreadsheet Software: Key Functional Capabilities"</b> and <b>Laboratory Session 6 "MS Excel Spreadsheet Software"</b>: working with formulas, charts, electronic forms, and data.</p>	Independent analytical and instrumental work with textual, tabular, and structured information; modular assessment.
<b>Module 3. Digital Tools in Professional Activity</b>	<p><b>Lecture 6 "Models of Interaction in Cyberspace"</b>: remote interaction, network communication, open educational resources, and web-based environments. <b>Lecture 7 "Library and Information Systems"</b>: electronic libraries, automated search, expert systems, and artificial intelligence.</p>	<p><b>Laboratory Session 7 "Technologies of Remote Professional Interaction"</b>: use of cloud-based and communication services and online tools.</p> <p><b>Laboratory Session 8 "Automated Library Systems"</b>: working with electronic libraries and information resources.</p>	Independent search- and project-based work; final assessment in the form of a course project defence.

During *laboratory sessions*, the emphasis is placed not so much on the formal mastery of individual software products as on understanding the principles of using office applications as universal tools for organising the academic and professional activities of psychologists. For this purpose, some tasks are completed using ready-made templates, which allows students to focus on the logic of working with information, its structuring, analysis, and the presentation of results, rather than on technical aspects of formatting. Such an approach creates a foundation for the subsequent transfer of acquired skills into a professional context.

At the same time, laboratory sessions are aimed at familiarising students with digital technologies that are directly related to psychological practice. In particular, attention is given to the possibilities of artificial intelligence in the analysis of professionally relevant information, the use of virtual and augmented reality for the purposes of psychological counselling, as well as the application of expert systems in psychological assessment and scientific research. In this context, digital technologies are presented not as autonomous technical solutions but as the outcome of interdisciplinary scientific developments: advances in cognitive psychology are discussed in relation to the creation of information and cognitive technologies; developments in engineering psychology are linked to the evolution of virtual systems; and contributions of social and organisational psychology are associated with the formation of social networks and digital communication tools. Particular attention is also paid to the use of online services for the statistical processing of psychological research data as an important instrument of contemporary scientific and applied activity.

*Students' independent work* logically complements laboratory sessions and is aimed at consolidating and individualising the skills acquired. It involves transferring the digital tools and approaches practised during classes into students' own academic or professionally oriented contexts, which contributes to the development of the ability to independently master new digital solutions and to use them consciously in future professional activity [Lavrentieva, Rybalko, Tsys & Uchitel, 2019].

The final element of the course is a *course project*, which performs an integrative function and is designed to synthesise the outcomes of students' lecture-based, laboratory, and independent work. Project-based activity is oriented towards the independent selection of a topic within the course content and involves the creation of a digital product that is potentially applicable in the academic or professional activities of future psychologists. Such an approach makes it possible to move away from reproductive forms of final assessment and to focus on the practically meaningful application of digital technologies.

The topics of course projects encompass significant areas of the contemporary digital transformation of psychological practice and scientific research, including information and SMART technologies, virtual and augmented reality technologies, remote and network-based forms of professional interaction, computer-based testing, cloud services, Web 2.0 and Wiki projects, digital educational resources, as well as the application of artificial intelligence and expert systems in psychological counselling. A separate group consists of projects aimed at developing online questionnaires, electronic portfolios, web quests, gamified solutions, and digital cases, which reflects current demands of psychologists' professional activity in a digital society [Севост'янов, Клімушев, Клімушева, 2024].

The implementation of the course project involves not only the theoretical substantiation of the chosen topic but also its practical realisation in the form of a completed digital product (such as a presentation, blog, publication, electronic resource, etc.). This ensures that students develop experience in project design, critical selection of digital tools, and an awareness of the limitations and possibilities of their application, while also fostering readiness for the independent implementation of digital solutions in future professional activity.

In the process of delivering the course, *teaching methods* oriented towards students' active engagement and the gradual increase in the complexity of working with digital technologies in academic and professional contexts are employed. Core methods include explanatory and analytical approaches aimed at conceptualising crucial notions of informatics, digitalisation, and information systems in relation to changes in social life and psychologists' professional activity. These methods ensure not the reproductive assimilation of material, but the development of the ability to interpret digital phenomena, information flows, and technological solutions from

the perspective of psychological science, taking into account their impact on mental processes, behaviour, and social relationships.

A significant place in the course is occupied by activity-based and practice-oriented methods, which are implemented primarily within laboratory sessions and situational tasks. These methods involve learning through the performance of professionally approximated actions, work based on exemplars, and partially guided activity, which makes it possible to form students' understanding of the general principles of working with digital tools regardless of specific software implementations. The use of ready-made templates in a number of laboratory tasks serves a methodological purpose and is aimed at focusing students' attention on the logic of psychologists' professional actions, including the creation of forms for collecting and summarising research results, maintaining structured records, conducting initial data analysis, and preparing visual materials for counselling and psychoeducational work.

To stimulate analytical and critical thinking, situational tasks (cases) are widely employed in the course, particularly those related to assessing the credibility of information and identifying manipulative content, fake messages, and audio and visual fabrications in digital media. Such cases model typical professional situations encountered by psychologists in their work with clients and contribute to the development of skills in professional engagement with information flows, reasoned explanation of risks, and appropriate communication within digital environments.

A separate group consists of research- and analysis-oriented methods associated with exploring the possibilities of artificial intelligence and expert systems in psychologists' professional activity. Within laboratory and independent tasks, students become familiar with examples of using AI to automate routine operations, conduct preliminary analysis of psychological research data, perform statistical calculations, and simulate typical communicative scenarios of counselling. The potential of expert systems developed in response to psychologists' requests for initial counselling and client routing is also examined, which makes it possible to conceptualise digital technologies as tools for supporting professional decision-making rather than replacing it.

Methods of independent work are aimed at consolidating and individualising the acquired skills and have an analytical, algorithmic, and reflective character. They involve independent exploration of digital services, the development of algorithms for professional actions, the preparation of educational and methodological materials, as well as the development of the ability to independently master new digital tools, assess their appropriateness, and formulate well-considered requests to specialists in the process of digitalising psychological practice.

The system of monitoring and assessing learning outcomes within the course has a comprehensive character and combines summative, ongoing, and formative assessment methods. Modular assessment is conducted in the form of test tasks, which make it possible to evaluate students' mastery of key concepts, patterns, and approaches to the use of digital technologies in psychologists' professional activity. At the same time, testing is not regarded as the sole assessment instrument but is complemented by the analysis of students' learning products.

Ongoing assessment is implemented through the evaluation of laboratory reports, results of problem-solving tasks, participation in discussions, individual presentations, as well as the completion of independent and project-based assignments. This approach allows for assessing not only the level of knowledge reproduction but also the ability to apply digital tools in professionally relevant situations, justify one's decisions, analyse information, and present activity outcomes.

A significant role in the assessment system is played by *formative assessment elements*, including discussions aimed at gauging students' understanding of the learning material, reflective dialogues, and analysis of the dynamics of skill development throughout task completion. These elements are intended to support students' learning motivation and to ensure the timely identification of difficulties in mastering the course content.

To adjust the teaching methodology and determine the optimal level of task complexity, *regular surveys* conducted via the Zoom platform are employed. These surveys make it possible to identify students' attitudes towards social networks, the level and nature of their use of various digital technologies, as well as their perceptions of the problems and

challenges of digitalisation. The results obtained serve as a basis for adapting the content and forms of learning activities to students' actual educational needs and the current socio-professional context.

An important element of the course's methodological system is *students' final reflection*, which is implemented in the form of essays, analytical posts, or brief written feedback. In these works, students express their views on the course content, specific types of learning activities, practical tasks, and the assessment methods applied. This format of feedback makes it possible to capture not only the level of learning satisfaction but also the educational needs, difficulties, and expectations of future psychologists regarding the use of digital technologies in professional activity.

The results obtained from the reflective analysis serve as a basis for the systematic updating of the course content and organisation. In particular, the content and format of selected independent assignments were revised, the range of course project topics was expanded, and a number of lectures aimed at conceptualising the psychological aspects of digitalisation were introduced and updated, including "*Digital Technologies for the Digital Human*" and "*Models of Interaction in Cyberspace*". A separate block of updates concerned the implementation of topics related to the use of artificial intelligence technologies, which reflects both the dynamic development of the digital environment and students' demand for practice-oriented and relevant course content.

Thus, the presented approach to the design and implementation of the course "*Information Technologies in Contemporary Society*" demonstrates the possibility of substantively rethinking the digital training of future psychologists in the direction of its professionalisation and integration with the current demands of psychological practice. The orientation of the course towards analysing digital technologies as socially and psychologically conditioned phenomena, the combination of theoretical, practice-oriented, and reflective teaching methods, as well as a flexible system of assessment and feedback, create conditions for the formation of students' holistic understanding of the digital environment of psychologists' professional activity. At the same time, the dynamic nature of digital transformation necessitates further improvement of the course content, expansion of the range of digital tools, and deepening of interdisciplinary links, which outlines prospects for further scholarly and methodological inquiry in this field.

**Conclusions.** The presented study constitutes a conceptualised account of the experience of teaching a course aimed at forming a basic level of readiness of future psychologists to use digital technologies in academic and professional activities. The implementation of the course has demonstrated the appropriateness of moving from an instrumental and technical understanding of digital training towards a content-based and professionally oriented approach that takes into account the psychological, social, and ethical aspects of digital transformation.

The content and methodology of the course make it possible to combine the mastery of digital tools with reflection on their impact on mental processes, social relationships, and professional practices of psychologists. The use of activity-based, case-oriented, and project-based forms of learning contributes to the development of students' ability to work critically with information flows, apply digital technologies to the analysis of professionally relevant situations, and independently master new tools in accordance with the demands of psychological practice.

Regular feedback from students and analysis of their learning outcomes have confirmed the feasibility of flexible updating of the course content, particularly through the expansion of topics related to the digital human, models of interaction in cyberspace, and the use of artificial intelligence technologies. This makes it possible to regard the course as an open educational model capable of adapting to the dynamic changes of the digital environment and the current challenges of contemporary psychological practice.

*Prospects for further research* are associated with deepening the scientific and methodological substantiation of the digital training of future psychologists, taking into account the development of artificial intelligence technologies, expert systems, and virtual and augmented reality. Further analysis is required of the possibilities and limitations of using these technologies in psychological counselling, diagnosis, and client support in digital and hybrid formats of interaction, as well as of defining professionally and ethically justified boundaries for their application. The results obtained may serve as a foundation for the development and updating of the content of professional training disciplines for future psychologists.

## Bibliography

Алексєєва, Г. М., Черезова, І. О., Кравченко, Н. В., Горбатюк, Л. В., Медведенко, В. М. (2025). Інтеграція цифрових технологій в систему фахової онлайн-підготовки майбутніх психологів до кризового втручання. *Педагогічна Академія: наукові записки*, 18. doi:<https://doi.org/10.5281/zenodo.15476872>

Бердо, Р. (2023). Роль інформаційних технологій в розвитку критичного мислення при формування готовності до професійної самоідентифікації майбутнього психолога. У *Євроінтеграційні орієнтири інноваційного наукового пошуку молоді України: Матеріали Міжнародної науково-практичної конференції* (с. 135–138). Мелітополь: Видавництво МДПУ ім. Б. Хмельницького.

Бондаренко, Т. (2024). Формування комунікативної компетентності у майбутніх психологів за допомогою цифрових технологій. *Адаптивне управління: теорія і практика. Серія «Педагогіка»*, 19 (37). doi:[https://doi.org/10.33296/2707-0255-19\(37\)-07](https://doi.org/10.33296/2707-0255-19(37)-07)

Василенко, О. (2020). Компоненти готовності студентів-психологів до використання інформаційних технологій в майбутній професійній діяльності. *Адаптивне управління: теорія і практика. Серія Педагогіка*, 9(17). doi:[https://doi.org/10.33296/2707-0255-9\(17\)-01](https://doi.org/10.33296/2707-0255-9(17)-01)

Васильєва, О. (2021). Упровадження інноваційних технологій в системі фахової підготовки майбутніх психологів. *Науковий вісник Ізмаїльського державного гуманітарного університету. Серія: «Педагогічні науки»*, 56, 62–72.

Іваницький, О. І. (2021) Особливості навчання майбутніх бакалаврів психології застосуванню програми Excel у професійній діяльності. У *І Всеукраїнська науково-практична конференція «Спеціальна освіта та соціальна інклюзія: виклики XXI століття»* (с. 40–41). Запоріжжя. Відновлено з <https://files.znu.edu.ua/files/Bibliobooks/Inshi65/0048429.pdf#page=41>.

Кравченко, О., Абрамян, Н. (2025). Особливості інтеграції сучасних технологій у підготовку студентів-психологів. *Журнал соціальної та практичної психології*, 5, 108–116. doi:<https://doi.org/10.32782/psy-2025-5-16>

Лебідь, О., Волкова, Н. (2021). Проблема підготовки майбутніх практичних психологів до застосування інформаційних технологій у психологічному консультуванні. *Актуальні питання гуманітарних наук*, 39 (2), 22–28. doi:<https://doi.org/10.24919/2308-4863/39-2-4>

Леонова А. О., Слюсаренко М. А. (2022). Готовність майбутніх фахівців соціономічної сфери до використання цифрових технологій у професійній діяльності як педагогічна проблема. *Вісник Університету імені Альфреда Нобеля. Серія «Педагогіка і психологія»*, 2 (24), 191–200. doi:<https://doi.org/10.32342/2522-4115-2022-2-24-20>

Літтих, М. С. (2025). Цифрові технології в психологічній науці та освіті. Відновлено з <http://repositc.nuczu.edu.ua/bitstream/123456789/27149/1/%D0%9C%D0%B0%D0%BA%D0%B5%D1%82%202025.pdf#page=185>

Нестеренко, В. (2023). Інноваційні інструменти, що сприяють підвищенню ефективності роботи психологів. *Організаційна психологія. Економічна психологія*, 29(2–3), 77–85. doi:<https://doi.org/10.31108/2.2023.2.29.7>

Поліщук, Т., Грунник, С. (2024). Особливості використання Excel у фаховій підготовці майбутніх психологів. *International Science Journal of Education & Linguistics*, 3(4), 13–24. doi:<https://doi.org/10.46299/j.isjel.20240304.03>

Сазонюк, О. (2021). Методичні аспекти викладання психології в системі фахової підготовки здобувачів вищої освіти. *Психологія: реальність і перспективи*, 1(17), 129–134. doi:<https://doi.org/10.35619/prapr.v1i17.250>

Севост'янов, П., Клімушев, В., Клімушева, Г. (2024). Вплив цифрових технологій на ефективність навчання майбутніх фахівців в області психології: аналіз сучасних підходів. *Наукові перспективи. Серія «Психологія»*, 7 (49), 1312–1324. doi:[https://doi.org/10.52058/2708-7530-2024-7\(49\)-1312-1324](https://doi.org/10.52058/2708-7530-2024-7(49)-1312-1324)

Сірко, Р., Вдович, С. (2025). Особливості викладання навчальних дисциплін майбутнім психологам у закладах вищої освіти. *Перспективи та інновації науки / Серія «Педагогіка», «Психологія», «Медицина»*, 9(55), 899–910. doi:[https://doi.org/10.52058/2786-4952-2025-9\(55\)-899-910](https://doi.org/10.52058/2786-4952-2025-9(55)-899-910)

Соловська, І. М. (2025). *Інформаційні технології в діяльності психолога: конспект лекцій*. Одеса: Вид-во Міжнародного гуманітарного університету.

Товстуха, О. М., Чумак, О. О. (2024). Роль цифрової компетентності у професійному становленні майбутніх психологів. *Вісник Луганського національного університету імені Тараса Шевченка. Педагогічні науки*, 4 (363), 239–244. doi:[https://doi.org/10.12958/2227-2844-2024-4\(363\)-239-244](https://doi.org/10.12958/2227-2844-2024-4(363)-239-244)

Bell, I. H., Nicholas, J., Alvarez-Jimenez, M., Thompson, A., & Valmaggia, L. (2020). Virtual reality as a clinical tool in mental health research and practice. *Dialogues in Clinical Neuroscience*, 22(2), 169–177. doi:<https://doi.org/10.31887/DCNS.2020.22.2/lvalmaggia>

Blease, C., Locher, C., Leon-Carlyle, M., & Doraiswamy, M. (2020). Artificial intelligence and the future of psychiatry: Qualitative findings from a global physician survey. *Digital Health*, 6. doi:<https://doi.org/10.1177/2055207620968355>

Lavrentieva, O., & Shabanov, S. (2023). Information and cognitive technologies as a modern educational trend and social innovation. У *Теорія і практика професійного становлення фахівця в інноваційному соціокультурному просторі: Матеріали 1-ї Міжнародної науково-практичної конференції* (с. 211–219). Дніпро: Університет ім. Альфреда Нобеля.

Lavrentieva, O., Rybalko, L., Tsys, O., & Uchitel, A. (2019). Theoretical and methodical aspects of the organization of students' independent study activities together with the use of ICT and tools. In *Proceedings of the 6th Workshop on Cloud Technologies in Education (CTE 2018)* (vol. 2433, pp.102–125). Kryvyi Rih. doi:<https://doi.org/10.55056/cte.371>

Matz, S., & Kosinski, M. (2019). Using consumers' digital footprints for more persuasive mass communication. *NIM Marketing Intelligence Review*, 11(2), 18–23. doi:<https://doi.org/10.2478/nimmir-2019-0011>

McDonald, C., & Schweinsberg, A. (2025). Ready or not? Psychologists' perceptions of work readiness in the age of AI. *Frontiers in Computer Science*, 7, 1524024. doi:<https://doi.org/10.3389/fcomp.2025.1524024>

Montag, C., & Rumpf, H.-J. (2021). The potential of digital phenotyping and mobile sensing for psycho-diagnostics of Internet use disorders. *Current Addiction Reports*, 8(3), 422–430. doi:<https://doi.org/10.1007/s40429-021-00376-6>

OECD. (2020). *Education in the digital age*. doi: 10.1787/509b2a05-en

Ruzek, J. I., Sadeh-Sharvit, S., Bunge, E. L., Sheperis, D. S., Fitzsimmons-Craft, E., Guinn, V., ... Taylor, C. B. (2024). Training the psychologist of the future in the use of digital mental health technologies. *Professional Psychology: Research and Practice*, 55(5), 395–404. doi:<https://doi.org/10.1037/pro0000567>

Smith, B., & Brown, K. E. (2019). *Tools and weapons: the promise and the peril of the digital age*. New York: Hodder & Stoughton.

Stoll, J., Müller, J. A., & Trachsel, M. (2020). (2019). Ethical issues in online psychotherapy: A narrative review. *Frontiers in Psychiatry*, 10, 993. doi:<https://doi.org/10.3389/fpsy.2019.00993>

## References

Aliexsieieva, H., Cherezova, I., Kravchenko, N., Horbatiuk, L., & Medvedenko, V. Integration of digital technologies into the system of professional online training of future psychologists for crisis intervention. *Pedagogical Academy: Scientific Notes*, 2025, no. 18. doi:<https://doi.org/10.5281/zenodo.15476872> (In Ukrainian).

Bell, I. H., et al. Virtual reality as a clinical tool in mental health research and practice. *Dialogues in Clinical Neuroscience*, 2020, vol. 22, no. 2, pp. 169–177. doi:<https://doi.org/10.31887/DCNS.2020.22.2/lvalmaggia>

Berdo, R. (2023). *Rol informatsiinykh tekhnolohii v rozvytku krytychnoho myslennia pry formuvanni hotovnosti do profesiinoi samoidentyfikatsii maibutnoho psykholoha* [The role of information technologies in the development of critical thinking in the formation of readiness for professional self-identification of a future psychologist]. *Proc. Scien. and Pract. Conf. "European integration guidelines of innovative research of the youth of Ukraine"*. Melitopol, B. Khmelnytskyi Melitopol State Pedagogical University Publ., pp. 135–138. (In Ukrainian).

Blease, C., Locher, C., Leon-Carlyle, M., & Doraiswamy, M. Artificial intelligence and the future of psychiatry: Qualitative findings from a global physician survey. *Digital Health*, 2020, vol. 6. doi:<https://doi.org/10.1177/2055207620968355>

Bondarenko, T. Formation of communicative competence in future psychologists using digital technologies. *Adaptive Management: Theory and Practice. Series: Pedagogics*, 2024, vol. 19 (37). doi:[https://doi.org/10.33296/2707-0255-19\(37\)-0719\(37\)](https://doi.org/10.33296/2707-0255-19(37)-0719(37)) (In Ukrainian).

Education in the digital age (2020). *OECD*. doi:<https://doi.org/10.1787/509b2a05-en>

Ivanytskyi, O. I. (2021) *Osoblyvosti navchannia maibutnikh bakalavriv psykholohii zastosuvanniu prohramy Excel u profesiinii diialnosti* [Peculiarities of teaching future bachelors of psychology to use the Excel program in professional activities]. *Materialy nauково-praktychnoi konferentsii "Spetsialna osvita ta sotsialna inkluziia: vyklyky KhKhI stolittia"* [Proc. Scien. and Pract. Conf. "Special Education and Social Inclusion: Challenges of the 21st Century"]. Zaporizhzhia, pp. 40–41. Available at: <https://files.znu.edu.ua/files/Bibliobooks/lnshi65/0048429.pdf#page=41> (Accessed 12 October 2025). (In Ukrainian).

Kravchenko, O., & Abramian, N. Features of modern technologies integration into the professional training for psychology students. *Social and Practical Psychology Journal*, 2025, no. 5, pp. 108–116. doi:<https://doi.org/10.32782/psy-2025-5-16> (In Ukrainian).

Lavrentieva, O., Rybalko, L., Tsys, O., & Uchitel, A. (2019). Theoretical and methodical aspects of the organization of students' independent study activities together with the use of ICT and tools. *Proceedings of the 6th Workshop on Cloud Technologies in Education (CTE 2018)*. Kryvyi Rih, vol. 2433, pp.102–125. doi:<https://doi.org/10.55056/cte.371>

Lavrentieva, O., & Shabanov, S. (2023). Information and cognitive technologies as a modern educational trend and social innovation. *Pros. 2<sup>nd</sup> International scientific and practical conference of scientific and pedagogical, pedagogical staff and young scientists "Theory and practice of the expert's professional formation in the innovative sociocultural area"*. Dnipro, ANU Publ., pp. 211–219.

Lebid, O., & Volkova, N. The problem of training future practical psychologists for the application of information technologies in psychological counseling. *Current Issues of the Humanities*, 2021, no. 39, vol. 2, pp. 22–28. doi:<https://doi.org/10.24919/2308-4863/39-2-4> (In Ukrainian).

Leonova, A., & Sliusarenko, M. Readiness of future specialists in the socioeconomic area for application of digital technologies in professional activities as a pedagogical problem. *Bulletin of Alfred Nobel University. Series: Pedagogy and Psychology*, 2022, no. 2 (24), pp. 191–200. doi:<https://doi.org/10.32342/2522-4115-2022-2-24-20> (In Ukrainian).

Littikh, M. S. (2025). Tsyfrovii tekhnolohii v psykholohichnii nauksi ta osviti [Digital technologies in psychological science and education]. Available at: <http://repositsc.nuczu.edu.ua/bitstream/123456789/27149/1/%D0%9C%D0%B0%D0%BA%D0%B5%D1%82%202025.pdf#page=185> (Accessed 12 October 2025). (In Ukrainian).

Matz, S., & Kosinski, M. Using consumers' digital footprints for more persuasive mass communication. *NIM Marketing Intelligence Review*, 2019, vol. 11, no. 2, pp. 18–23. doi:<https://doi.org/10.2478/nimmir-2019-0011>

McDonald, C., & Schweinsberg, A. Ready or not? Psychologists' perceptions of work readiness in the age of AI. *Frontiers in Computer Science*, 2025, vol. 7, an: 1524024. doi:<https://doi.org/10.3389/fcomp.2025.1524024>

Montag, C., & Rumpf, H.-J. (2021). The potential of digital phenotyping and mobile sensing for psycho-diagnostics of Internet use disorders. *Current Addiction Reports*, vol. 8, issue 3, pp. 422–430. doi:<https://doi.org/10.1007/s40429-021-00376-6>

Nesterenko, V. Psychologists' innovative efficiency improvement tools. *Organizational Psychology. Economic Psychology*, 2023, no. 29(2–3), pp. 77–85. doi:<https://doi.org/10.31108/2.2023.2.29.7> (In Ukrainian).

Polischuk, T., & Grunnyk, S. Features of the use of Excel in the professional training of future psychologists. *International Science Journal of Education & Linguistics*, 2024, no. 3(4), pp. 13–24. doi:<https://doi.org/10.46299/j.isjel.20240304.03> (In Ukrainian).

Ruzek, J. I., et al. Training the psychologist of the future in the use of digital mental health technologies. *Professional Psychology: Research and Practice*, 2024, vol. 55, no. 5, pp. 395–404. doi:<https://doi.org/10.1037/pro0000567>

Sevostianov, P., Klimushev, V., & Klimusheva, H. The impact of digital technologies on the effectiveness of training future professionals in the field of psychology: An analysis of current approaches. *Scientific Perspectives. Series "Psychology"*, 2024, no. 7(49), pp. 1312–1324. doi:[https://doi.org/10.52058/2708-7530-2024-7\(49\)-1312-1324](https://doi.org/10.52058/2708-7530-2024-7(49)-1312-1324) (In Ukrainian).

Sirko, R., & Vdovych, S. Peculiarities of teaching academic disciplines to future psychologists in higher education. *Prospects and Innovations of Science. Pedagogy. Psychology. Medicine*, 2025, no. 9 (55), pp. 899–910. doi:[https://doi.org/10.52058/2786-4952-2025-9\(55\)-899-910](https://doi.org/10.52058/2786-4952-2025-9(55)-899-910) (In Ukrainian).

Smith, B., & Brown, K. E. (2019). *Tools and weapons: the promise and the peril of the digital age*. New York, Hodder & Stoughton Publ., 580 p.

Solovska, I. M. (2025). *Informatsiini tekhnolohii v diialnosti psykholoha: konspekt leksii* [Information technologies in the activities of a psychologist: lecture notes]. Odesa, International Humanitarian University Publ., 37 p. (In Ukrainian).

Sozoniuk, O. Methodological aspects of teaching psychology in the system of professional training of students. *Psychology: Reality and Perspectives*, 2021, no. 1 (17), pp. 129–134. doi:<https://doi.org/10.35619/praprv.v1i17.250129-134> (In Ukrainian)

Stoll, J., Müller, J. A., & Trachsel, M. (2019). Ethical issues in online psychotherapy: A narrative review. *Frontiers in Psychiatry*, vol. 10, an: 993. doi:<https://doi.org/10.3389/fpsy.2019.00993>

Tovstukha, O., & Chumak, O. (2024). The role of digital competence in the professional development of future psychologists. *Bulletin of Luhansk Taras Shevchenko National University. Pedagogical Sciences*, 2024, no. 4 (363), pp. 239–244. doi:[https://doi.org/10.12958/2227-2844-2024-4\(363\)-239-244](https://doi.org/10.12958/2227-2844-2024-4(363)-239-244) (In Ukrainian).

Vasylenko, O. Components of readiness of students-psychologists to use information technologies in future professional activity. *Adaptive Management: Theory and Practice. Series: Pedagogics*, 2020, vol. 9 (17). doi:[https://doi.org/10.33296/2707-0255-9\(17\)-01](https://doi.org/10.33296/2707-0255-9(17)-01) (In Ukrainian).

Vasylieva, O. Introduction of innovative technologies in the system of professional training of future psychologists. *Scientific Bulletin of the Izmil State University of Humanities*, 2021, no. 56, pp. 62–72 (In Ukrainian).

## TRAINING FUTURE PSYCHOLOGISTS TO UTILISE DIGITAL TECHNOLOGIES IN ACADEMIC AND PROFESSIONAL ACTIVITIES: CONTEMPORARY APPROACHES AND EDUCATIONAL PRACTICES

*Olena Lavrentieva*, Doctor of Sciences in Pedagogy, Full Professor, Head of the Department of Pedagogy, Kryvyi Rih State Pedagogical University, Kryvyi Rih, Ukraine.

E-mail: [helav68@gmail.com](mailto:helav68@gmail.com)

<https://orcid.org/0000-0002-0609-5894>

DOI: <https://doi.org/10.32342/3041-2196-2025-2-30-20>

**Keywords:** *training of future psychologists, professional activity of psychologists, digital technologies, digital transformation, professionally oriented courses, educational practices*

*The relevance of the study is determined by the digital transformation of society, which significantly alters social environments, communication formats, and the nature of psychologists' professional activity, thereby highlighting the need to update the content of professional training.*

*The purpose of the article is to conceptualise the experience of teaching the course "Information Technologies in Contemporary Society", which is focused on developing a basic level of readiness of future psychologists to use digital technologies in academic and professional activities, as well as to substantiate content-related and methodological approaches to its renewal in the context of the digital transformation of society.*

*In preparing the article, theoretical methods of analysis and synthesis of scholarly sources on the digitalisation of education, the psychology of the digital environment, and the professional training of psychologists were applied, which made it possible to outline the conceptual foundations for updating the course content. Methods of modelling and pedagogical design were used to systematise the authors' teaching experience and to substantiate the course structure, its content lines, and methodological approaches.*

*The empirical basis of the study included an analysis of the course teaching and learning materials, the outcomes of students' laboratory, independent, and project-based tasks, as well as a synthesis of observations of the learning process. This made it possible to refine the logic of course design, the level of task complexity, and the appropriateness of the applied teaching methods without employing specialised experimental research procedures.*

*The article substantiates the expediency of shifting from an instrumental and technical understanding of digital training to a content- and profession-oriented approach focused on interpreting digital technologies*

*as socially and psychologically conditioned phenomena. The logic of course design, its modular structure, and content lines are presented, covering the use of digital technologies in psychologists' academic and professional activities, the analysis of psychological aspects of digital transformation, and the emerging challenges of contemporary psychological practice.*

*Methodological approaches to course implementation are described, including a combination of explanatory-analytical, activity-based, case-oriented, and project-based teaching methods, as well as the use of formative assessment and reflective practices. It is shown that such an organisation of learning activities contributes to the development of students' ability to work critically with information flows, consciously apply digital tools, independently master new technologies, and assess the boundaries of their use in psychologists' professional activity.*

*The synthesis of the results of students' reflective analysis of learning activities confirms the effectiveness of the proposed approach and the feasibility of flexible course content revision in response to the dynamics of the digital environment and the professional demands of future psychologists.*

**It is concluded** *that the design and implementation of professionally oriented digitally focused courses, based on the integration of psychological knowledge and the analysis of digital technologies as socially conditioned phenomena, create a foundation for developing a basic level of readiness of future psychologists to use digital tools in academic and professional activities.*

*Дата надходження до редакції / Submitted: 24.04.2025*

*Дата прийняття до публікації / Accepted: 25.10.2025*

*Дата публікації / Published: 26.12.2025*