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## FROM CYBER HYGIENE TO GLOBAL COMMUNICATION: FOREIGN LANGUAGE LEARNING IN ADVANCED MEDICAL TRAINING

*The article explores the integration of cyber hygiene skills into the process of foreign language learning in master's and doctoral programs at medical universities. In the context of digital transformation, future physicians, researchers, and educators should both master English for Specific Purposes (ESP) and demonstrate sustainable practices of safe digital behavior. This dual competence ensures academic integrity, safeguards data confidentiality, supports the effectiveness of distance learning, and strengthens the international community's trust in the outcomes of their work.*

*The paper traces the evolution from traditional printed textbooks to digital ecosystems, highlighting both their advantages and limitations. Printed resources have long provided a reliable foundation for building grammatical and terminological competence; however, they lack interactivity, fail to reflect rapid changes in medical practice, and do not prepare students for the risks associated with online communication. By contrast, modern digital tools – learning management systems (LMS), interactive assignments, clinical simulations, and mobile applications – create opportunities to combine language practice with the development of cyber hygiene skills, thereby enhancing the flexibility and accessibility of learning.*

*The main challenges identified include the lack of specialized methodological materials, insufficient teacher training, unequal access to technological resources, and the absence of comprehensive assessment tools. Addressing these challenges requires interdisciplinary collaboration, innovative methodologies, digital training programs, and the creation of adaptive platforms that simultaneously foster foreign language acquisition and digital literacy.*

*The article argues that an integrated approach enhances student motivation, develops professional communicative competence, and fosters a responsible digital culture. The integration of foreign language learning and cyber hygiene should be regarded as a strategic priority of modern medical education, ensuring that future specialists are fully prepared to meet the global challenges of the twenty-first century.*

*Key words: cyber hygiene; foreign language learning; medical education; postgraduate training; global communication; English for Specific Purposes; digital literacy; learning management system; simulation.*

**(статтю подано мовою оригіналу)**

The rapid digitalization of modern medicine, from electronic health records, telemedicine, and mobile health applications to complex clinical decision support systems and artificial intelligence, has fundamentally changed the way the medical field operates. A physician's professional activities are increasingly linked to the use of digital tools, which require new competencies, primarily in professional communication. As Ferreira et al. observe, the growing digitalization of healthcare has created a pressing need for health professionals to develop robust digital skills, making this competence an integral part of medical practice [1, p. 329]. In a globalized world, clinicians frequently collaborate in multidisciplinary and multicultural teams, consult with patients from various countries and cultural backgrounds, analyze clinical protocols, scientific articles, and international guidelines written in English, and actively participate in transnational research projects and educational networks. These processes increase the demand for foreign language proficiency, especially in English, which acts as the global lingua franca in healthcare.

The rise of digital communications and electronic systems has introduced new risks, including leaks of personal and medical data, phishing attacks, and complex forms of social engineering that manipulate clinical information. Cyberattacks on medical institutions, unauthorized access to patients' electronic health records, and the use of unreliable communication channels during telemedicine consultations pose significant threats, adding pressure to the healthcare system. Since patient data is among the most sensitive information, maintaining cyber hygiene is not just a technical task; it is also a vital aspect of the professional ethics upheld by doctors, nurses, pharmacists, and all other healthcare workers.

The modern system of advanced medical training must fulfill two key objectives. First, it should enhance learners' foreign language skills, enabling them to effectively integrate into the global professional environment, engage in interdisciplinary and intercultural communication, and participate in international scientific discussions. Second, it should focus on developing skills in digital responsibility and cyber hygiene, which are essential components of professional competence.

Despite the obvious integrative nature of these dimensions, modern educational trajectories most often offer them in a fragmented manner. The course "Foreign Language for Specific Purposes" is usually focused on developing linguistic skills and genre-oriented abilities (reading articles, writing abstracts, conducting oral discussions) but hardly considers aspects of digital security and ethics. Conversely, disciplines in information technology or cybersecurity rarely include simulations of real communicative situations in English that arise during telemedicine consultations or international consultations. As a result, students, even demonstrating sufficient knowledge in each area, turn out to be unprepared to apply it comprehensively in real clinical conditions. As noted by Weidener and Fischer, most of the available literature on teaching AI ethics in medical education remains recent and largely theoretical, which highlights the broader problem of insufficient integration between technical, ethical, and communicative training [2, p. 399].

Thus, the problem lies in the insufficient integration of foreign language training, digital literacy, and cyber hygiene within the system of advanced medical education. This gives rise to multiple challenges: fragmented skills, lack of sustainable transfer into practice, reduced effectiveness of professional interaction, and increased risks to patient safety. In this context, an urgent task is to rethink the model of foreign language teaching in medical universities, integrating it with the requirements of cyber hygiene and global communication, which will allow educators to form a holistic, functionally oriented, and practically significant competence in future medical professionals.

**Literature Review.** Research in the field of English for Specific Purposes (ESP) and particularly English for Medical Purposes (EMP) over recent decades has laid the foundation for the systematic study of the genre features of medical discourse and identified the need for targeted teaching methodologies. As contemporary researchers note, ESP represents a practice-oriented movement dedicated to identifying, through rigorous research, the specific needs and relevant discourse characteristics of target student groups [3, p. 4]. In the context of medical education, this approach means that the language training of future medical professionals must consider not only general language skills but also the specifics of the professional context: the use of specialized terminology, the ability to work with clinical documents, and precision and clarity in communication with patients and colleagues. Researchers pay particular attention to the importance of genre analysis (medical history, lab report, informed consent), which allows teachers to build purposeful learning tasks that are as close as possible to real communicative situations.

Works on academic writing and scientific style reveal the importance of strategies for evidentiality, hedging, and argumentation for medical research and clinical publications. Pearson et al. analyzed features of metadiscourse and stance-taking across disciplines, showing that in medical writing, scientific texts demand particular precision, balance, and strict adherence to disciplinary conventions. Shomoossi drew attention to the role of hedges as a means of adjusting the degrees of certainty expressed and avoiding absolutism, which is essential for maintaining scientific objectivity and correctly presenting results. Such works prove that without mastering these subtleties of foreign-language communication, medical professionals cannot fully integrate into the international scientific space [4, p. 211].

The CLIL (Content and Language Integrated Learning) and EMI (English Medium Instruction) approaches [5] have demonstrated the effectiveness of integrating content and language in the study of professional disciplines. Under these conditions, students not only learn terminology but also immediately apply it while studying specialized topics, which significantly increases the practical value of foreign language training. Zhou et al. demonstrated that an integrated PBL curriculum enhances clinical thinking skills, including critical, systematic, and evidence-based reasoning. This approach promotes the development of critical thinking, the ability to analyze medical sources, and the improvement of communicative competence in the clinical environment [6].

Within global language policy, the CEFR Companion Volume (2020) [7] has become an important benchmark, expanding the description of skills in the areas of mediation, online interaction, and collaboration. This is particularly relevant for medical education, as telemedicine, remote consultations, and international research collaborations are becoming the norm in modern practice. The CEFR offers descriptors that allow educators to assess professionals' ability to interact in a digital environment, interpret complex texts for patients, and adapt scientific information for a broader audience.

Issues of digital competence have been systematically reflected in the European Digital Competence Framework for Citizens (DigComp 2.2) [8]. The document details skills in information literacy, cybersecurity, communication, and responsible online behavior. For medical professionals, this means not only technical awareness but also ethical responsibility in using digital resources, especially when it comes to protecting patients' sensitive data. In this context, materials on cyber hygiene, including manuals on information security standards and training programs for staff, emphasize the human factor as the main risk factor. At the same time, research in the field of cybermedicine highlights the need to integrate security aspects into the educational process at the university training stage.

Equally significant are the recommendations of the World Health Organization (WHO) on digital health. They focus on ethical issues related to the use of telemedicine and digital platforms and propose standards for ensuring confidentiality and protection of personal data. These documents also emphasize the need to develop intercultural and interlingual competence in medical professionals, as digital services are increasingly used in cross-border contexts.

Standardized protocols, particularly SBAR (Situation, Background, Assessment, Recommendation) and its variation ISBAR, play an important role in ensuring effective communication. Their application in clinical teams significantly improves the quality of information transfer, reduces the risk of misunderstandings, and contributes to increased patient safety. Research confirms that training future medical professionals to work with such protocols within foreign language instruction allows educators to form skills for structured and clear communication in English, which has a direct impact on clinical practice outcomes.

In summary, several key trends can be identified from scientific literature:

– language courses for medical professionals should be genre-oriented, covering a wide range of professional texts (medical histories, discharge summaries, informed consents, clinical protocols, conference posters);

– scenario-based modeling of learning situations (OSCE-like stations, role-playing games, telemedicine consultation simulations) significantly increases assessment validity and promotes better transfer of knowledge into practice;

– digital and information literacy is a necessary condition for safe and effective professional communication in healthcare, especially in the context of globalized and intercultural interactions.

Thus, modern scientific discourse confirms the integrative nature of the problem: learning a foreign language within the system of advanced medical training is inextricably linked to issues of digital security, ethics, and global communication.

**Outstanding issues regarding the problem.**

The critical need for digital competence in modern healthcare is undeniable. Recent research highlights that despite the clear importance of digital health for improving care, its widespread adoption is hindered by a significant literacy gap among professionals. Therefore, as Saigí-Rubió et al. argue, it is crucial not only for medical staff to acquire these digital skills but also to implement a robust model for assessing and accrediting such competencies to drive progress in the field [9]. Despite numerous studies and methodological developments in the field of teaching foreign languages for medical specialties, as well as in the sphere of digital literacy and cyber hygiene, there are a number of significant problems that remain open for scientific discussion and practical resolution in this very context.

**1. Assessment of online interaction.**

Given the active implementation of telemedicine, electronic medical records (EMR), and digital platforms for information exchange among professionals, the question arises: how to reliably and validly measure the level of students' foreign language competence in such conditions? Traditional tests and exams do not reflect the complexity of online interaction, which includes synchronous communication (video consultation), asynchronous channels (secure email, internal messages in medical systems), as well as collaboration in electronic consilia. It is important to develop assessment tools that simultaneously measure both language skills and adherence to cyber hygiene rules.

2. **Integration of cyber hygiene into the language course.** Teachers face a dilemma of combining language tasks with digital security content without overloading the course or diverting students from linguistic objectives. Integrating activities such as analyzing phishing emails or compiling reports on cyber incidents in English requires a carefully balanced approach to prevent the course from turning exclusively into cybersecurity training. Further research is needed to develop didactic models that enable the organic integration of linguistic and digital components.

3. **Ethics and confidentiality in learning tasks.** The use of authentic clinical cases in teaching is always associated with the risk of data de-anonymization. Students must learn to work with realistic examples in English, but at the same time adhere to international confidentiality standards (HIPAA, GDPR). The question lies in creating learning materials that imitate real clinical documents but do not contain personal data. It is also relevant to explore how to model incident reporting in a foreign language so that it is both authentic and ethically safe.

4. **Interculturalism in "English as a lingua franca" mode.** The English language in medicine functions as a global communication tool, but this creates a number of challenges: different accents, differences in communication styles, cultural barriers in expressing empathy, delivering bad news, or conducting informed consent. There is a need to prepare students for realistic conditions where English is used as a "lingua franca" with various variations. The question of how to assess a student's readiness to communicate effectively in such heterogeneous conditions remains unresolved.

5. **Skill transfer.** Training programs often yield strong results in the classroom, yet that does not guarantee that the acquired skills will transfer sustainably to clinical practice. A graduate who performs well in role-play during class may not be able to maintain the same level of foreign language communication and cyber-ethical behavior under real, stressful hospital conditions. Addressing this uncertainty requires long-term studies of training model effectiveness and validation of their ecological validity in authentic clinical settings.

6. **Teacher training.** A modern foreign language teacher for medical professionals must possess not only pedagogical and linguistic skills but also digital competencies and basic knowledge in the field of cybersecurity. This corresponds to the TPACK (Technological Pedagogical Content Knowledge) concept, which involves the integration of technological, pedagogical, and content awareness. The need for systematic teacher training to work with integrated courses remains an unresolved problem in most educational institutions.

7. **Standardization of outcomes.** Different medical specializations – medicine, dentistry, pharmacy, and public health – have their own emphases in communication and digital practice. The problem arises of aligning learning outcomes with international frameworks (e.g., CEFR) and simultaneously with national accreditation standards in healthcare. It is necessary to develop universal but flexible criteria that will facilitate the assessment of foreign language and digital competence in different professional contexts.

8. **Accessibility and inclusivity**. The digitalization of learning creates additional challenges for students with special educational needs. The question lies in adapting telemedicine simulations, role-playing games, and online platforms so that they are inclusive and accessible. This concerns not only technical aspects (subtitles, adaptive interfaces) but also methodological approaches that consider different cognitive styles and learner needs.

9. **Motivation and psychological readiness.** Another open question is ensuring student motivation for the comprehensive acquisition of foreign language communication and cyber hygiene. Often, learners perceive these areas as separate and secondary compared to "core" medical disciplines. Innovative approaches are needed that emphasize the practical significance of integrated skills and demonstrate their direct benefit for professional activity.

10. **Adaptation to rapid technological changes.** The pace of development of digital medicine and cyber threats is extremely high. What is relevant today may become obsolete tomorrow. How to ensure the dynamism of training courses, their ability to update according to new challenges, while maintaining structure and academic quality, is another open question that requires resolution.

The **main aim** of the article is to formulate a conceptual model of an integrated foreign language course within the system of advanced medical training, in which two key components – global communication and cyber hygiene – are considered not as parallel or separate directions, but as interconnected and interdependent cores of the future medical professional's competence.

To achieve this aim, the following **tasks** are set:

**1. Theoretical justification of the integrated approach**.

It is necessary to prove that the foreign language training of medical professionals cannot exist in isolation from modern challenges of digitalization and data security. Theoretical analysis must confirm that communication in healthcare is inseparable from digital platforms, telemedicine consultations, electronic records, and transnational research networks, and therefore requires the synchronous development of linguistic and cyber-ethical skills.

**2. Development of a structured learning design.**

The aim involves creating a modular program that combines traditional language practices (reading, writing, speaking, listening) with elements of digital security and communication protocols (SBAR/ISBAR, incident reporting, informed consent). The focus is on scenario-based modeling of real professional situations, which will ensure the proximity of training to clinical practice.

**Definition of learning outcomes**.

One of the tasks is formulating clear outcomes in terms of competencies, aligned with international frameworks (CEFR, DigComp 2.2) and standards in healthcare. The outcomes should cover:

– foreign language competence for professional communication;
– digital literacy and skills for safe interaction in the online environment;
– intercultural sensitivity and readiness to work in global teams;
– the ability to combine scientific evidence with accessible presentation of information for the patient.

**Development of assessment approaches.**

The goal is to propose valid assessment tools that go beyond traditional tests and cover:

-- simulations of telemedicine consultations;
-- analysis and creation of medical documentation in English;
-- detection and response to cyber threats within learning tasks;
-- self-assessment and peer assessment as tools for formative control.

**Creation of an implementation roadmap.**

One aspect of the aim is to describe practical steps for integrating the course into curricula: teacher training (TPACK model), development of teaching materials, ensuring inclusivity and accessibility for different categories of students, adaptation to different specializations (medicine, dentistry, pharmacy, public health).

**Outlining a program for further research**.

The article aims not only to present a model but also to define directions for its further scientific validation:

– empirical studies of the effectiveness of the integrated course;
– study of the dynamics of skill transfer into clinical practice;
– analysis of the long-term stability of the formed competencies;
– comparison of results in different educational and cultural contexts.

Thus, the extended aim of the article is to combine theoretical, methodological, and practical dimensions: from the conceptualization of an integrated model of foreign language teaching in medicine, to specific proposals for educational design, assessment tools, and a strategy for further development.

**Main Research Material**.

**1. Conceptual framework of "6 dimensions".**

The proposed framework for the integrated course is based on six interconnected dimensions that ensure the comprehensive formation of professional competencies. Recent studies (Hansol Lee et al.) highlight that "one of the first comprehensive multi-level meta-analyses investigating the effects of English Medium Instruction in higher education" confirms the effectiveness of content-language integration in developing learners' academic and professional skills [10].

The first dimension is linguistic competence, which includes mastery of high-frequency terminology for clinical specialties, acquisition of grammatical structures with high functional value, such as conditional constructions for risk communication or modal verbs for formulating recommendations. The focus is on the ability to work with language resources as a tool for professional activity.

The second dimension is communicative competence, covering genre models and protocols accepted in international clinical practice (SBAR/ISBAR for information transfer, SPIKES for delivering bad news, informed consent as a formalized genre). Here, it is important not only to master terminology but also to adhere to structures and communicative strategies that ensure accuracy, conciseness, and safety of interaction.

The third dimension is digital literacy and cyber hygiene, which involves mastering tools for secure authentication, recognizing cyber threats, participating in phishing simulations, applying principles of clinical case pseudonymization, and adhering to electronic documentation standards.

The fourth dimension is intercultural sensitivity, meaning an understanding of cultural scenarios, politeness styles, expectations of patients from different cultures, as well as the ability to work through an interpreter or mediator without losing communication quality.

The fifth dimension is evidence-based medicine and scientific communication, in which students learn to critically read RCTs and meta-analyses, evaluate the strength of evidence, and adapt information for patients in an accessible form ("plain language summaries").

The sixth dimension is reflective professionalism, encompassing the development of self-observation skills, using debriefings after simulations, working with ethical dilemmas, and awareness of one's own role and responsibility in the global professional environment.

2. **Course structure and modules.** The integrated course is built on a modular principle: Ostrovsky et al. report that learners "self-assessed their confidence, knowledge gained, and likelihood of utilizing the telehealth skills taught in the module(s)," which aligns with the idea that each block targets specific skills within the overall conceptual framework [11].

**Module 1. Cyber Hygiene in Healthcare.** Outcomes: the student recognizes phishing attacks, adheres to rules for secure collaborative file work, and forms English-language incident reports. Tasks: analysis of suspicious emails, compiling a short Incident Report using a unified template, developing a team checklist "Do & Don't" for online consultations. Assessment: situational test + oral micro-exam (2-minute SBAR report on a cyber incident).

**Module 2. Evidence-Based Reading.** Outcomes: the student can find international guidelines, identify key clinical conclusions, and transform complex scientific text into an accessible format for the patient. Tasks: creating a "Rapid Evidence Brief" (250-300 words), rewriting a scientific abstract into a patient memo format, and analyzing bias in articles. Assessment: rubric for genre compliance and citation accuracy.

**Module 3. Intercultural Clinical Interaction.** Outcomes: the student demonstrates skills for conducting appointments considering cultural norms, communicates effectively in difficult situations. Tasks: role-playing games "difficult patient", teach-back technique, interaction with an interpreter. Assessment: video portfolio + reflective self-assessment.

**Module 4. Written Genres of EMR.** Outcomes: the student compiles structured SOAP notes, discharge summaries, and referrals using sanitized data. Tasks: editing imperfect examples of records, mutual peer review of work in pairs. Assessment: double-blind peer review.

**Module 5. Telemedicine and Team Communication.** Outcomes: the student conducts a video consultation in English, adhering to security standards and the ISBAR protocol. Tasks: simulation of a consilium with role distribution, analysis of non-technical skills (intonation, speech sequence, time management). Assessment: observation using a checklist with subsequent feedback.

**Module 6. AI Literacy in Medical Communication.** Outcomes: the student formulates relevant queries for decision support systems, verifies the reliability of output data, and documents the use of AI tools. Tasks: creating a "human-in-the-loop" summary of an article with source verification, preparing an academic integrity policy. Assessment: reflective essay report with references.

3. **Task design and typical examples**. To ensure the practical orientation of the course, scenario-based tasks are used.

**SBAR-handover:** The student receives a "noisy" medical history and must convey the information in English, maintaining the SBAR structure and not disclosing identifiers.

**Informed Consent Rewrite**: A task to adapt a complex legal text to a B2 level with mandatory preservation of legally significant elements and an explanation in comments of the choice of linguistic means.

**Phishing Drill:** Creating an English-language trap email for a hospital, which other students must expose, identify "red flags," and prepare a "safe-response template". Recent findings (McCarrick et al.) indicate that communication simulation significantly enhances students' consent-related communication skills compared to traditional observation-based learning [12]. Such tasks develop both linguistic and critical digital skills.

4. **Assessment and Validation of Outcomes.** Outcome mapping is based on the CEFR: for speaking – level B2/ C1 (coherence, terminology accuracy, ability to collaborate), for writing – genre descriptors (SOAP notes, discharge summaries, patient information leaflets), for online interaction – descriptors for mediation and collaboration. The toolkit includes analytical rubrics, OSCE stations with a language focus, scenario-based tests on cyber hygiene, checklists for safe behavior, as well as self-assessment and peer-assessment methods. To prove effectiveness, a pre-post design with control groups is implemented, alongside analysis of error frequency and delayed post-testing (after 6–12 weeks), which enables the evaluation of the sustainability of the results.

5. **Implementation and Quality Assurance.** The effectiveness of the model depends on instructor training, who must master TPACK competence (a combination of pedagogical, content, and technological knowledge). To achieve this, training sessions and collaborative development with clinicians and IT specialists are organized. Course policies emphasize ethical aspects: all cases are anonymized, the use of real patient identifiers is prohibited, and learning tasks are based on simulations rather than real records. Inclusivity is ensured through multi-channel

material formats (text, audio, video, subtitles) and alternative completion paths for students with special educational needs. A system of micro-credentials (digital badges) is introduced to certify the mastery of specific competencies (e.g., Telemedicine B2, Secure Writing, SBAR Pro). Resources include corpus-based phraseology collections for SOAP/ISBAR, ready-made templates and checklists, and ethical dilemma scenarios. All this ensures the consistent quality of the course and its adaptability to the needs of diverse student groups.

**Conclusions.** Foreign language training for future medical professionals in the 21st century should be regarded as an integrated process where global communication, evidence-based medicine, intercultural interaction, and cyber hygiene form a unified ecosystem of professional competence. Language no longer serves merely as an instrument for academic communication but becomes a tool for safe and effective clinical practice.

The proposed "6-dimension" framework and modular course design demonstrate how the integration of linguistic, communicative, digital, and ethical skills fosters the development of transferable skills – those that can be effectively transferred from the educational setting to clinical practice. The use of genre-oriented tasks (such as SBAR-handover, rewriting informed consent forms, and identifying phishing emails) makes the learning process closely aligned with real professional activities.

A crucial prerequisite for successful implementation is instructors' readiness to work in an interdisciplinary format and possess Technological Pedagogical Content Knowledge (TPACK) competency, which integrates pedagogical, content, and technological knowledge. Without this foundation, the integrated course cannot function effectively.

Future research should focus on three key areas:

1. Validating online interaction assessment tools, particularly in telemedicine contexts.

2. Investigating long-term skill retention (whether acquired skills are maintained in actual clinical practice).

3. Training instructors for integrated teaching of languages, digital literacy, and cyber ethics.

Therefore, foreign language training in medicine should evolve as a multidimensional strategy that integrates communication, security, and professional ethics. This approach will help develop a new type of specialist – one capable of working effectively in global teams, protecting patient data, and actively contributing to the advancement of global medical science.

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***Л.Ю. Лічман, О.В. Уваркіна, О.М. Кононець Від кібергігієни до глобальної комунікації: вивчення іноземних мов у системі поглибленої медичної підготовки***

У статті досліджується інтеграція навичок кібергігієни у процес вивчення іноземних мов у програмах магістратури та аспірантури медичних університетів. В умовах цифрової трансформації майбутні лікарі, дослідники та викладачі мають не лише оволодівати англійською мовою за професійним спрямуванням (АПС), а й демонструвати сталі практики безпечної цифрової поведінки. Така подвійна компетентність забезпечує академічну доброчесність, збереження конфіденційності даних, ефективність дистанційного навчання й підвищує довіру міжнародної спільноти до результатів їхньої роботи.

У статті окреслено еволюцію від традиційних друкованих посібників до цифрових екосистем, показано їхні переваги й обмеження. Друковані ресурси тривалий час були надійними для формування граматичних і термінологічних основ, однак вони позбавлені інтерактивності, не враховують швидких змін у медичній практиці й не готують студентів до ризиків, пов'язаних з онлайн-комунікацією. Натомість сучасні цифрові інструменти – системи управління навчанням (СУН), інтерактивні завдання, клінічні симуляції та мобільні застосунки – створюють умови для поєднання іншомовної практики з формуванням навичок кібергігієни, підвищуючи гнучкість і доступність навчання.

Виявлено основні проблеми: брак спеціалізованих методичних матеріалів, недостатня підготовка викладачів, нерівний доступ до технологічних ресурсів і відсутність комплексних інструментів оцінювання результатів. Їх подолання потребує міждисциплінарної співпраці, інноваційних методик, цифрових тренінгів і створення адаптивних платформ, що одночасно сприяють іншомовній підготовці та підвищенню цифрової грамотності.

У статті обґрунтовано, що інтегрований підхід підвищує мотивацію студентів, розвиває професійну комунікативну компетентність і формує відповідальну цифрову культуру. Поєднання навчання іноземних мов і кібергігієни має розглядатися як стратегічний пріоритет сучасної медичної освіти, що забезпечує готовність майбутніх фахівців до глобальних викликів XXI століття..

***Ключові слова:*** кібергігієна; вивчення іноземних мов; медична освіта; післядипломна підготовка; глобальна комунікація; англійська для спеціальних цілей; цифрова грамотність; система управління навчанням; симуляція.