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DISCIPLINES “LATIN LANGUAGE” AND “ENGLISH FOR SPECIFIC PURPOSES” AS AN INSTRUMENT FOR DEVELOPING TERMINOLOGICAL COMPETENCE AMONG PHARMACY STUDENTS

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ДИСЦИПЛІНИ «ЛАТИНСЬКА МОВА» ТА «АНГЛІЙСЬКА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ» ЯК ЗАСІБ ФОРМУВАННЯ ТЕРМІНОЛОГІЧНОЇ КОМПЕТЕНТНОСТІ СТУДЕНТІВ-ФАРМАЦЕВТІВ

Abstract. This study indicates that the high-quality training of future pharmacists necessitates the use of interdisciplinary cooperation to cultivate terminologically competent specialists. This underscores the relevance of integrating the disciplines «Latin Language» and «English for Specific Purposes» within the educational process for students of higher pharmaceutical education. The article reveals the essence of interdisciplinary integration and substantiates its significance in the study of Latin and English languages at the pharmaceutical faculty. It is established that it is difficult to master English for Specific Purposes and understand special terminology in specialized disciplines without studying the Latin language. The implementation of the integration of «Latin Language» and «English for Specific Purposes» makes it possible to utilize basic knowledge of Latin and methods of term-formation when studying English pharmaceutical terminology, and also develops students' professional competences. While studying Latin pharmaceutical terminology, higher education students have the opportunity not only to significantly broaden their horizons but also to improve their English language skills. Knowledge of international pharmaceutical terminology and English at a communicative level significantly impacts the enhancement of the professional preparedness of future pharmacists. To successfully integrate the disciplines «Latin Language» and «English for Specific Purposes», it is necessary to clearly define the pathways for inter-subject interaction between Latin and English; to reveal the influence of Latin on international pharmaceutical terminology; to apply the comparison method when studying terms in both languages; to develop skills in recognizing cognate words; and to be able to identify Greek and Latin word-forming elements. Higher education students do not always study pharmaceutical terminology in «Latin Language» and «English for Specific Purposes» with interest. That is why teachers are faced with the task of making classes as interesting and useful as possible for the formation of terminological competence. When studying the topic «Frequent Segments in Drug Names», students' attention should be drawn to the potential practical application of the acquired knowledge when writing drug names in English, and during communication with colleagues from other countries, which manifests in understanding the meanings of drug names.

Key words: Latin Language; English for Specific Purposes; pharmaceutical terminology; integration; interdisciplinary connections; pharmacists.

Анотація. У дослідженні зазначено, що якісна підготовка майбутніх провізорів передбачає застосування міждисциплінарної взаємодії для формування термінологічно грамотних спеціалістів, що вказує на актуальність інтеграції дисциплін «Латинська мова» і «Англійська мова за професійним спрямуванням» у процесі навчання здобувачів вищої фармацевтичної освіти; розкрито сутність міждисциплінарної інтеграції та обґрунтовано її значення під час вивчення латинської та англійської мов на фармацевтичному факультеті. Установлено, що без вивчення латинської мови важко засвоїти англійську мову за професійним спрямуванням та розуміти спеціальну термінологію на спеціальних дисциплінах. Реалізація інтеграції дисциплін «Латинська мова» та «Англійська мова за професійним спрямуванням» дає можливість використовувати базові знання латинської мови та способів термінотворення під час вивчення англійської фармацевтичної термінології, а також формує у студентів професійні компетентності. Під час вивчення латинської фармацевтичної термінології здобувачі вищої освіти мають можливість не лише значно розширити свій кругозір, а й покращити знання англійської мови. Знання міжнародної фармацевтичної термінології

та англійської мови на комунікаційному рівні значно впливає на підвищення фахового рівня підготовки майбутніх провізорів. Для успішної інтеграції дисциплін «Латинська мова» та «Англійська мова за професійним спрямуванням» потрібно чітко визначити шляхи міжпредметної взаємодії латинської та англійської мов; розкрити вплив латинської мови на міжнародну фармацевтичну термінологію; використати метод порівняння під час вивчення термінів обох мовами; виробити навички розпізнавання спільнокореневих слів; уміти виділяти греко-латинські словотворчі елементи. Здобувачі вищої освіти не завжди із зацікавленням вивчають фармацевтичну термінологію на дисциплінах «Латинська мова» та «Англійська мова за професійним спрямуванням», саме тому перед викладачами постає завдання зробити заняття максимально цікавими та корисними для формування термінологічної компетентності. Під час вивчення теми «Частотні відрізки у назвах лікарських препаратів» потрібно звернути увагу здобувачів освіти на можливість практичного застосування набутих знань під час написання назв препаратів англійською мовою, спілкування з колегами з інших країн, що проявляється у розумінні значень назв препаратів.

Ключові слова: латинська мова; англійська мова за професійним спрямуванням; фармацевтична термінологія; інтеграція; міждисциплінарні зв'язки; провізори.

Introduction. The main task of higher medical education institutions is to create conditions for the development of the student's personality and their professional speech, which is an integral component in the formation of the future medical specialist's professional competence. The disciplines «Latin Language» and «English for Specific Purposes» form the basis of the linguistic training for students of higher medical education. In medicine, the Latin language has a special function, as it ensures mutual understanding between specialists not only within the country, but also in the international arena and it also influences the terminological composition of other foreign languages, particularly English. The application of an interdisciplinary approach to teaching Latin for future pharmacists is considered part of the general problem of raising the level of professional competence among graduates of higher medical education institutions. Therefore, the topic of our research is relevant and requires detailed coverage.

The issue of integration in the educational process has been the subject of interest for many researchers (M. Artsyshevska, M. Berulava, V. Budanov, V. Goncharenko, O. Knyazeva, Yu. Kozlovsky, A. Kolot, M. Kruglyak, S. Kurdyushov, V. Ognevyyuk, S. Sysoeva); interdisciplinary connections in linguistic training of specialists are partially outlined in the works of R. Gurevych, G. Patlata, O. Pylypiv, L. Pylypiv, N. Saps, M. Sydor. The establishment of interdisciplinary connections in the process of teaching Latin and English to students of higher pharmaceutical education is, in our opinion, an insufficiently covered part of the general problem of updating the content of higher education.

The aim of the article is to determine the opportunities and prospects for using interdisciplinary connections as a means of forming terminological competence and improving professional speech during the study of Latin and English languages by future pharmacists.

Theoretical framework. The professional training of specialists in any field is based on the principles of complexity and systematicity, which are realized through an interdisciplinary approach. This approach positively influences the organization of teaching for higher education students, motivating them to transfer knowledge from one discipline to study another

based on a holistic perception and understanding of previously processed information, generalization, and systematization of acquired knowledge; it also forms the ability to apply this knowledge in future professional activities. Inter-subject integration contributes to increased motivation for studying the discipline, facilitates students' understanding of the phenomena and processes being studied, forms the ability to analyze facts from various fields of knowledge, improves the assimilation of knowledge from different disciplines, expands the sphere of information acquisition, and generally forms a holistic scientific worldview (Kozlovska & Lytvyn, 2001, p. 179). Scholars note that integration of the educational process in higher medical education institutions involves its construction based on the principle of logical generalization of the sequence of program disciplines, forming a unity among individual education components so that the knowledge of one discipline serves as a foundation for studying another, as no single academic discipline alone forms the professional competence of a future doctor or pharmacist, but an integrated approach can ensure the formation of a holistic system of knowledge, skills, abilities and professionally significant qualities (Breus, Kuvshynova, Tiron & Markova, 2016).

Pharmaceutical terminology has developed and improved over many centuries and at each stage of society's development reflected the level of scientific and practical human activity in the pharmaceutical industry. Incorrect use of terms can negatively affect the quality of pharmaceutical care, so each term must briefly but accurately reflect the semantic meaning of a specific concept of technological processes, goods, etc., related to the industry's science or drug production (Savaryn, Palasiuk, Mysula & Sydliaruk, 2024). That is why the training of a highly professional pharmacist is impossible without a high level of terminological competence formation, as this is the key to effective assimilation of the entire complex of academic disciplines, the formation of the necessary scientific worldview and successful professional communication. Knowledge of the professional language is an instrument for future pharmacists to acquire, accumulate, assimilate and subsequently utilize knowledge in their specialty operationally. The general and special competences and learning

outcomes provided by educational professional programs cannot be achieved without perfect command of pharmaceutical terminology. The application of an interdisciplinary approach to teaching allows the formation of terminological competence for the training of a highly qualified specialist.

At the pharmaceutical faculty, the curriculum includes the study of «Latin Language» in the first year and «English for Specific Purposes» in the first and second years, both aimed at the formation and development of professional terminological competence. The aim of studying the academic discipline «Latin Language» at the pharmaceutical faculty is: to form in higher education students a holistic concept of the lexico-grammatical and communicative features of the Latin language; to form their professionally-oriented terminological competence and provide knowledge of pharmaceutical terminology with the prospect of its further use in professional activity [Robocha prohrama z dystypliny «Latynska mova»]. «Latin Language» as an academic discipline provides the relevant knowledge, competences and programmatic learning outcomes for higher education students to assimilate pharmaceutical terms for their subsequent use when studying English professional terminology and core pharmacological disciplines.

Medical terminology consists primarily of Latin terms, so mastering the basics of Latin grammar, necessary vocabulary, and Greek and Latin word-forming elements contributes to the development of skills for the grammatically correct use of medical terms and enables higher education students to apply the acquired knowledge in classes of English for Professional Purposes, anatomy, pharmacology, chemistry, and clinical disciplines.

By using the integration of «Latin Language» and «English for Specific Purposes», higher education students deepen and consolidate knowledge from both disciplines; they learn to establish similarities and form stable associations by memorizing terms and term-elements. The goal of implementing the interdisciplinary approach during the study of the Latin language by future pharmacists is an attempt to understand the Latin linguistic influence on the structure of English pharmaceutical terms, and also the ability to transfer knowledge gained from studying Latin into work with pharmaceutical terminology in English.

First-year students begin to form their professional speech apparatus, so the synchronous or sequential study of the same word-forming elements and the comparison of grammatical constructions in both languages contribute to the development of automatic skills through multiple repetitions (Sydora & Zaporozhets, 2025). Instructors of both Latin and English must provide higher education students with a linguistic tool and teach them how to use it; intro-

duce them to the structure of pharmaceutical terms; and begin the process of filling the terminological lexical stock not only at the level of memorization but also of understanding the systemic nature and interconnectedness of its elements. By simultaneously studying Latin and English for specific purposes, higher education students have the opportunity to combine their knowledge and compare differences in term-formation in both languages, which helps to lay the foundations for studying fundamental and clinical disciplines, actualizes background knowledge, forms a system of professional skills and abilities, and ensures an appropriate level of knowledge for further study and professional activity (Bujalková, 2018).

Most medical terms are borrowed from Latin, which is determined not only by the influence of ancient civilization on the formation of new cultures but also by the history of medicine development. For centuries, European medicine traditionally used pharmaceutical terminology based on Latin for the naming of medicinal plants and remedies. Prescriptions are written in Latin, adhering to strict writing rules understood by pharmacists worldwide. In the process of borrowing, Latin terms in English medical terminology adapted to the system of the recipient language, having passed a rather complex path.

Analyzing the pathways and forms of borrowing Latin and Latinized Greek medical terms, we can state that English medical terminology includes: 1) lexical units borrowed in the same grammatical form as in Latin and Latinized Greek medical terms: bacterium, chole, pertussis, tuberculosis, hepatitis; 2) Latin terms assimilated into the English language through: a) loss of endings: Lat. tabuletta – Eng. tablet, Lat. acidum – Eng. acid, Lat. planta – Eng. plant, Lat. extractum – Eng. extract, Lat. linimentum – Eng. liniment, Lat. gelum – Eng. gel, Lat. antibioticus – Eng. antibiotic, Lat. antipyreticus – Eng. antipyretic, Lat. analgeticus – Eng. analgetic, Lat. rectalis – rectal, vaginalis – vaginal, Lat. linimentum – Eng. liniment; b) replacement of endings: Lat. pasta – Eng. paste, Lat. sedativus – Eng. sedative, Lat. suppositorium – Eng. suppository, Lat. remedium – Eng. remedy, Lat. ampulla – Eng. ampulle, Lat. mixtura – Eng. mixture, Lat. tinctura – Eng. tincture, Lat. suppositorium – Eng. suppository, Lat. sanitas – Eng. sanity; c) phonetic changes in suffixes (loss of a suffix vowel and change of flexion): Lat. solubilis – Eng. soluble, Lat. tuberculum – Eng. tubercle; d) borrowing the Latin noun with the addition of the -n ending: Lat. lotio, onis f – Eng. lotion, Lat. solutio, onis f – Eng. solution, Lat. suspensio, onis f – Eng. Suspension (Pylypiv, Pylypiv & Sapsa, 2025). Direct borrowing affected not only individual lexemes but also suffixes and prefixes, primarily Greek ones, as the word-forming potential of the Greek language significantly surpasses the possibilities of the Latin

language. Thus, a large number of English pharmaceutical terms are formed using Greek and Latin word-forming elements (roots, suffixes, prefixes): sublingually, intravaginally, antifungal, antihypertensive, hypertension, etc.

Knowledge of the most commonly used Greek roots and prefixes contributes to better understanding and memorization of names, and the determination of the therapeutic action of a particular drug. Trivial names of drugs are formed mainly by combining word-forming elements selected from the systematic name, which express the most diverse characteristics, for example: origin (Vipraxinum from Lat. *vipera* – snake, *toxinum* – poisonous substance); relation to an anatomical organ (Ophthalmidum from Gr. *ophthalmos* – eye; *Gastrophyt* from Gr. *Gaster* – stomach + Gr. *phyt* – plant); therapeutic action (*Streptocidum*, *-cid-* – agent with antibacterial action; *Amidopyrinum*, from Gr. *pyr-* – fire, *fever* – antipyretics); source of formation (*Adrenalinum* from Lat. *ren* – kidney, *ad* – near, since adrenaline is obtained from the adrenal glands of cattle); chemical composition of the drug (*Aethaminum*, from *aeth* – ether, indicating the presence of an ethyl radical); various associations, even mythological ones (*Morphinum* – from the name of the ancient Greek god of sleep *Morpheus*); designation of medicinal plants used for making medicines (*Digoxynum*, Lat. *Digitalis*, which comes from the Latin name for foxglove, from which cardiological medicines are made) (Smolska, Synytsia & Koval-Hnativ, 2016, p. 96). Greek and Latin word-forming elements are used not only in terms but also in general vocabulary (the element *cid*, meaning «to kill», «to disinfect», is present in words such as genocide, suicide; *pyr* – «fire», «fever» is found in lexemes like pyrotechnics, pyromania).

When studying pharmaceutical terminology, students' attention should be drawn to the grammatical structure of multi-word terms. Such terms in Latin are divided into several groups: those formed with the help of a non-agreed attribute; those formed with the help of an agreed attribute; and terms that include both agreed and non-agreed attributes. Latin pharmaceutical terms formed using a non-agreed attribute are used extremely frequently. A non-agreed attribute is an attribute expressed by a noun in the Genitive case (*Genetivus*) that stands immediately after the indicated word. It is important to draw the attention of higher education students to the fact that in English, the non-agreed attribute is conveyed using

the preposition «of» and nouns. For example: Lat. *tinctura Calendulae* – Eng. the tincture of calendula; Lat. *extractum radicis Valeriana* – Eng. the extract of valerian root; Lat. *solutio Acidi borici* – Eng. the solution of boric acid, etc. Another option for transmitting genitive case relations is the pharmaceutical term according to the formula «Noun + Noun», for example: Lat. *tinctura Chamomillae* – Eng. Chamomile tincture; Lat. *oleum Olivaram* – Eng. Olive oil.

Many pharmaceutical terms are formed using a coordinated attribute, where the adjective or participle agrees with the noun in gender, number, and case. Students should be mindful that the word order in English and Latin is opposite. In Latin, the noun comes first, followed by the adjective or participle, which agrees with the noun in gender, number, and case, for example: Lat. *sirupus simplex* – Eng. simple sirup; Lat. *linimentum volatile* – Eng. volatile liniment; Lat. *Aether medicinalis* – Eng. medical ether; Lat. *spiritus dilutus* – Eng. diluted spirit.

In pharmacy, special Latin professional expressions are also used in their original form, for example, *in vivo* (in a living organism), *in vitro* (in a test tube), *per os* (by mouth), *per rectum* (through the rectum), *lege artis* (according to the rule of art), *quantum satis* (as much as necessary), *per se* (in pure form), *in loco* (on site, appropriate), etc.

Conclusions and Research Prospects. The formation and development of professional terminological competence is important in the educational process, as the effectiveness of assimilating core disciplines and the ability to engage in successful professional communication depend on its level. The Latin language is studied parallel to fundamental disciplines, serving as their conceptual and terminological base, laying the foundation for the further study of international medical terminology, and possessing a high integrative multidisciplinary potential. Interdisciplinary connections between academic disciplines «Latin Language» and «English for Specific Purposes» contribute to the awareness of the integrity of the professional language system, the understanding of the interconnectedness of its elements and create conditions for more active memorization and subsequent manipulation of professional terminology. Given the importance of forming the terminological competence of future pharmacists, the prospects for further research are seen in the detailed study of borrowings from the Latin language in modern pharmaceutical terminology.

2. Bujalková, M. (2018) .The Coexistence of Latin and English in Medical Terminology and its Contribution to ESP Teaching. International Journal of Humanities Social Sciences and Education. 5 (6). 7–14.

3. Kozlovska, I.M. & Lytvyn, A.V. (2001). Intehratsiia ta nastupnist u rozvytku zmistu navchalnoho znannia: metodolohichnyi aspekt [Integration and

References

1. Breus, V.Ie., Kuvshynova, I.I, Tiron, O.I. & Markova, O.O. (2016). Shliakhy udoskonalennia vykladannia histolohii, tsytolohii ta embriolohii. [Ways to improve the teaching of histology, cytology and embryology]. *Intehratyvna antropologiya. – Integrative Anthropology.* 27(1). 78–81. [in Ukrainian].

continuity in the development of the content of educational knowledge: methodological aspect]. *Neperervna profesiina osvita: teoriia i praktyka: zbirnyk naukovykh prats. – Continuing professional education: theory and practice: collection of scientific papers.* Kyiv. 2. 177–183. [in Ukrainian].

4. Pylypiv, O.H., Pylypiv, L.I. & Sapsa, N.B. (2025). Intehratsiia osvitnikh komponent «Latynska mova i medychna terminolohiia» ta «Anhliiska mova za profesiinym spriamuvanniam» yak instrument formuvannia profesiino-movnykh kompetentnostei studentiv-medykiv [Integration of educational components «Latin language and medical terminology» and «English language for professional purposes» as a tool for the formation of professional language competencies of : <https://moodle.tdmu.edu.ua/mod/folder/view.php?id=331647>. [in Ukrainian].

6. Savaryn, T.V., Palasiuk, B.M., Mysula, M.S., & Sydliaruk, N.I. (2024). Terminolohichna spriamovanist kursu «Latynska mova» u medychnomu

zakladi vyshchoi osvity yak pedahohichna problema [Terminological orientation of the course «Latin language» in a medical institution of higher education as a pedagogical problem]. *Medychna osvita – Medical education.* (4), 157–162. <https://doi.org/10.11603/m.2414-5998.2023.4.14491>. [in Ukrainian].

7. Smolska, L.Iu., Synytsia, V.H. & Koval-Hnativ, Dz.Iu. (2016). *Latynska mova ta osnovy farmatsevtychnoi terminolohii [Latin language and the basics of pharmaceutical terminology]* / za red. L.Iu. Smolskoї. Kyiv. [in Ukrainian].

8. Sydora, M.Iu., & Zaporozhets, O.S. (2025). Vykorystannia mizhpredmetnykh zviazkiv u protsesi vyladannia navchalnykh dystsyplin «Latynska mova» y «Ukrainska mova za profesiinym spriamuvanniam» [The use of interdisciplinary connections in the process of teaching the academic disciplines «Latin» and «Ukrainian language for professional purposes»]. *Medychna osvita – Medical education.* (1), 83–88. <https://doi.org/10.11603/m.2414-5998.2025.1.15377>. [in Ukrainian].

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