

**THE APPLICATION OF ARTIFICIAL INTELLIGENCE
IN TEACHING ENGLISH FOR INFORMATION TECHNOLOGY
AT HAI PHONG UNIVERSITY**

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Ngày nhận bài: 08/10/2025

Ngày nhận bài sửa: 24/10/2025

Ngày duyệt đăng: 12/11/2025

Abstract: The rapid growth of digital technologies has reshaped higher education, with Artificial Intelligence (AI) playing an important role in enhancing teaching and learning processes. This paper explores the application of AI in teaching English for Specific Purposes (ESP), particularly English for Information Technology (IT), at Hai Phong University in Vietnam. Findings indicate that AI can support vocabulary acquisition, pronunciation practice, writing feedback, interactive learning, and curriculum development. Furthermore, AI can help personalize learning pathways, improve teaching efficiency, and enhance student engagement. Nevertheless, issues such as overreliance, accuracy errors, digital infrastructure, and ethical concerns remain pressing. Recommendations are provided for universities, lecturers, and students to ensure effective and responsible AI integration. This study contributes to ongoing discussions on the digital transformation of higher education and highlights the need for further research on AI-supported ESP instruction in Vietnam.

Keywords: Artificial intelligence, English for specific purposes, higher education, information technology, Vietnam.

**ỨNG DỤNG TRÍ TUỆ NHÂN TẠO TRONG GIẢNG DẠY TIẾNG ANH CHUYÊN NGÀNH
CÔNG NGHỆ THÔNG TIN TẠI TRƯỜNG ĐẠI HỌC HẢI PHÒNG**

Tóm tắt: Sự phát triển nhanh chóng của công nghệ số đã làm thay đổi mạnh mẽ nền giáo dục đại học, trong đó Trí tuệ nhân tạo (AI) giữ vai trò quan trọng trong việc nâng cao chất lượng dạy và học. Bài viết này tìm hiểu việc ứng dụng AI trong giảng dạy tiếng Anh chuyên ngành (ESP), cụ thể là tiếng Anh chuyên ngành Công nghệ Thông tin (IT) tại Trường Đại học Hải Phòng (Việt Nam). Kết quả cho thấy AI có thể hỗ trợ hiệu quả trong

việc học từ vựng, luyện phát âm, phản hồi bài viết, học tập tương tác và xây dựng chương trình giảng dạy. Ngoài ra, AI còn giúp cá nhân hóa lộ trình học, tăng hiệu quả giảng dạy và khơi gợi hứng thú học tập của sinh viên. Tuy nhiên, việc ứng dụng AI cũng đặt ra một số thách thức như sự phụ thuộc quá mức vào công nghệ, sai sót về độ chính xác, hạn chế hạ tầng kỹ thuật và các vấn đề đạo đức. Bài viết đưa ra những khuyến nghị dành cho nhà trường, giảng viên và sinh viên nhằm đảm bảo việc ứng dụng AI được hiệu quả và có trách nhiệm. Nghiên cứu góp phần vào quá trình thảo luận về chuyển đổi số trong giáo dục đại học, đồng thời nhấn mạnh nhu cầu cần có thêm các nghiên cứu sâu hơn về việc ứng dụng AI trong giảng dạy tiếng Anh chuyên ngành tại Việt Nam.

Từ khóa: Trí tuệ nhân tạo, Tiếng Anh chuyên ngành, giáo dục đại học, công nghệ thông tin, Việt Nam.

1. Introduction

In the context of globalization and digital transformation, English proficiency has become a vital skill for Information Technology (IT) students worldwide. English for Specific Purposes (ESP), particularly English for IT, equips learners with the language needed to engage with technical documentation, participate in professional communication, and remain competitive in the global labor market. For countries like Vietnam, where the IT industry is rapidly expanding, English proficiency is not merely an academic requirement but a professional necessity.

English for IT is a required course at Hai Phong University. Nonetheless, the course has a number of difficulties. First, students' proficiency levels are uneven, with some learners struggling with general English while others are capable of engaging with advanced technical texts. Second, there are still few updated and specialized ESP materials available. The dynamic evolution of IT terminology and practices is often

overlooked in textbooks. Third, traditional teaching methods still dominate, relying heavily on lectures and rote memorization rather than interaction and application. Fourth, students frequently lack motivation, as they prioritize technical subjects over English, perceiving language learning as secondary to their professional preparation.

AI, or Artificial Intelligence, has become an essential tool for responding to modern educational issues. It involves computer systems that imitate human thinking and learning. In education, AI technologies are now used for intelligent tutoring, giving instant feedback, adaptive testing, and creating personalized learning paths. With its power to analyze large amounts of information and adapt to each learner's progress, AI is reshaping how English for Specific Purposes (ESP) is taught and learned.

Globally, AI-powered applications have already been integrated into English language teaching (ELT). Speech recognition software provides immediate

pronunciation feedback, AI chatbots simulate real-world dialogues, and adaptive learning platforms generate personalized tasks. These innovations not only enhance engagement but also allow for more flexible, learner-centered approaches. For Vietnamese universities, including Hai Phong University, applying AI technologies in ESP teaching can facilitate curriculum innovation, foster better learner achievement, and strengthen the connection between education and international professional requirements.

This paper aims to examine the role of AI in teaching English for IT at Hai Phong University. It begins with a review of relevant literature on AI in education, AI in language learning, and ESP pedagogy. It then presents findings and discussions on practical applications of AI tools for lecturers and students. Finally, it offers recommendations for effective integration of AI into ESP teaching and learning.

In light of the objectives above, this study seeks to answer the following research questions:

1. How is Artificial Intelligence currently applied in teaching English for Information Technology at Hai Phong University?
2. What are the perceived benefits and challenges of integrating AI tools into ESP instruction for both lecturers and students?
3. How can AI be effectively and ethically implemented to enhance teaching and learning outcomes in English for IT courses?

2. Literature review and methodology

2.1. Literature Review and theoretical frame work

2.1.1. Artificial Intelligence in Education

Artificial Intelligence has become increasingly prevalent in educational contexts over the past decade. According to Zawacki-Richter et al. (2019), AI in higher education can be categorized into four main areas: personalization of learning, intelligent tutoring systems, assessment and feedback, and administrative support. In ESP contexts, AI-driven learning analytics support teachers in continuously monitoring learners' skill development and personalizing instruction to meet professional language demands.

UNESCO (2021) emphasizes that AI has the potential to advance inclusive and equitable education by enabling personalized pathways for learners with different needs. In higher education, AI enhances scalability by supporting large student cohorts while maintaining individualized support. However, UNESCO also highlights ethical challenges such as data privacy, transparency, and equity.

Dwivedi et al. (2021) argue that AI in education represents both opportunities and challenges. On one hand, AI can significantly improve efficiency, engagement, and accessibility. On the other, issues of overreliance, ethical misuse, and the risk of dehumanizing education remain critical.

2.1.2. AI in Language Learning

Artificial Intelligence has become a major driver of innovation in language

education, fundamentally changing how learners acquire and practice new languages. Li et al. (2021) note that AI-powered applications can enhance pronunciation, vocabulary acquisition, writing accuracy, and reading comprehension through adaptive and data-driven learning mechanisms. For instance, speech recognition technologies such as ELSA Speak and Google Speech API provide instant pronunciation feedback, enabling learners to self-correct in real time. Writing assistants like Grammarly and QuillBot help students improve grammar, coherence, and lexical variety, while automated scoring systems such as ETS's e-rater evaluate writing performance objectively and consistently.

AI has also been instrumental in facilitating interactive and communicative language learning. Chatbots and virtual assistants powered by Natural Language Processing (NLP) simulate authentic conversational contexts, offering learners opportunities for spoken interaction without the fear of judgment. Duolingo's AI algorithm, for example, personalizes task difficulty according to learner progress, maintaining motivation and supporting incremental improvement. Similarly, intelligent tutoring systems (ITS) use learner analytics to provide feedback tailored to individual needs, ensuring that instruction remains both responsive and efficient.

Recent studies emphasize the role of AI in supporting autonomous learning. According to Kukulska-Hulme (2021),

mobile-assisted and AI-supported learning environments allow students to study anytime and anywhere, fostering flexibility and self-regulation. Pan (2022) further argues that AI promotes learner autonomy by providing instant assessment, personalized recommendations, and gamified learning experiences that sustain motivation.

However, the integration of AI into language learning is not without challenges. Almarabeh (2019) highlights that while translation tools such as Google Translate and DeepL are useful for comprehension, they may misinterpret domain-specific or contextual meanings, particularly in professional and technical English. Moreover, excessive reliance on AI-generated feedback may limit learners' critical thinking and creativity. Ethical issues such as plagiarism, data privacy, and algorithmic bias also warrant careful attention (Dwivedi et al., 2021).

In summary, AI in language learning offers substantial potential for enhancing efficiency, personalization, and engagement. Nevertheless, its application must be guided by pedagogical principles and ethical considerations to ensure that technology complements - rather than replaces - human instruction and meaningful language interaction.

2.1.3. ESP and English for IT

English for Specific Purposes (ESP) focuses on equipping learners with language skills tailored to their academic or professional needs. English for IT emphasizes technical vocabulary, reading of

technical documentation, writing reports, and professional communication in workplace contexts.

In Vietnam, ESP instruction has long faced challenges. Pham and Nguyen (2020) argue that limited specialized materials, lack of teacher training, and low student proficiency undermine ESP effectiveness. For IT students, these challenges are intensified by the rapid pace of technological innovation, which requires constant updating of terminology and content.

Integrating AI into ESP instruction thus appears promising. By leveraging AI-driven personalization, interactive tools, and real-time updates, universities can address existing gaps and prepare IT students for professional success.

2.1.4. AI Applications for Lecturers

AI offers multiple tools that support lecturers in designing, delivering, and evaluating ESP instruction.

Content Development: Language models such as ChatGPT assist in generating IT-related reading passages, practice dialogues, and case studies. This reduces preparation time and ensures materials are relevant and updated.

Assessment and Feedback: Platforms like Grammar and Turnitin provide automated feedback on student writing, correcting grammar, style, and detecting plagiarism. This enhances assessment efficiency while supporting individualized learning.

Learning Analytics: AI-based systems allow lecturers to track student progress,

identify weaknesses, and adapt teaching strategies accordingly.

Curriculum Updating: By analyzing industry trends, AI tools help instructors incorporate emerging IT vocabulary and contexts into ESP lessons.

2.1.5. AI Applications for Students

For learners, AI provides opportunities for self-directed, flexible study:

Vocabulary Acquisition: AI-powered translation tools (e.g., DeepL, Google Translate) help students understand specialized IT terminology and texts.

Speaking and Listening Practice: Speech recognition tools such as ELSA Speak provide personalized pronunciation training, while AI-driven listening platforms enhance comprehension.

Interactive Learning: Adaptive platforms like Quizlet AI and Duolingo create customized exercises, supporting incremental learning.

Virtual Tutors: AI chatbots act as personal tutors, answering grammar, vocabulary, and IT-related language questions.

2.2. Research Methods and data collection

To gain a comprehensive understanding of the current situation of English for Specific Purposes (ESP) instruction at Hai Phong University and to examine the application of Artificial Intelligence (AI) in English for IT, this study employed a qualitative-descriptive research design combined with elements

of survey-based inquiry. The data collection process was conducted between March and June 2025 and included the following instruments:

Questionnaires: A structured questionnaire was distributed to 80 undergraduate students majoring in Information Technology (IT), who had completed or were currently enrolled in the *English for IT* course. The questionnaire included both closed and open-ended items focusing on:

- Students' English proficiency and learning habits
- Their familiarity with AI tools (e.g., ChatGPT, Grammarly, Duolingo)
- Perceived challenges and motivations in ESP learning
- Opinions on the potential of AI for improving their English learning experience

Responses were analyzed using descriptive statistics (frequency and percentage) to identify dominant trends and perceptions among learners.

Semi-structured Interviews: Five ESP lecturers from the Faculty of Foreign Languages were interviewed to explore their perspectives on integrating AI into English for IT instruction. The interviews focused on teaching strategies, use of digital tools, assessment practices, and perceived institutional barriers. The qualitative data were thematically coded to extract recurring themes such as *AI readiness*, *pedagogical adaptation*, and *professional development needs*.

Document Analysis: Course syllabi, lesson plans, and teaching materials (including the *Oxford English for Information Technology* textbook) were reviewed to evaluate content relevance, technological integration, and alignment with modern IT industry requirements. This analysis provided contextual data for understanding how current ESP instruction addresses-or fails to address-emerging digital competencies.

Classroom Observation: Two ESP classes were observed to record classroom interaction patterns, teacher-student dynamics, and the presence (or absence) of technology-enhanced instruction. Observation notes focused on teaching methods, learner engagement, and the use of digital tools (if any).

Case Study Implementation: Two AI-supported lesson plans (Unit 1: *Computer Users* and Unit 3: *Computer Applications*) were piloted as part of the research intervention. These lessons served as case studies to examine how AI tools can be integrated into ESP instruction and how students respond to AI-assisted learning environments.

Data Analysis: The data collected from questionnaires and interviews were **triangulated** to ensure validity. Quantitative data (from student surveys) were summarized in tables and charts, while qualitative data (from interviews and observations) were analyzed using thematic coding to identify major trends and pedagogical implications.

This combination of methods allowed for a holistic picture of the current

state of ESP teaching at Hai Phong University and informed the design of AI-enhanced instructional strategies presented in Section 3.3.2.

3. Findings and Discussion

3.1. The Current Situation of ESP at Hai Phong University

At Hai Phong University, English for Specific Purposes (ESP) in the field of Information Technology (IT) is a compulsory course in the undergraduate curriculum. However, its implementation still reveals several limitations in terms of student proficiency, teaching materials,

instructional methods, and learner motivation.

To investigate the current situation of ESP teaching and learning, a mixed-method approach was adopted, combining quantitative and qualitative techniques to ensure data validity and comprehensiveness.

The results from the data collection activities revealed several key issues:

- **Uneven English proficiency:** Students enter the course with varying levels of general English competence, leading to difficulties in maintaining uniform instructional progress.

Table 1. Student Perceptions of ESP Learning and AI Integration (n = 80)

Survey Items	Response Options	Percentage (%)	Interpretation
1. Level of English proficiency	High / Moderate / Low	15 / 52 / 33	Most students rate their English as moderate or below average.
2. Relevance of ESP course content to IT field	Highly relevant / Somewhat relevant / Not relevant	28 / 55 / 17	The majority find ESP content somewhat relevant but not fully aligned with IT practice.
3. Frequency of AI tool usage in English learning (e.g., ChatGPT, Grammarly, Duolingo)	Regularly / Occasionally / Never	20 / 45 / 35	Less than one-fourth of students use AI tools regularly.
4. Perceived usefulness of AI tools for learning English	Very useful / Useful / Not useful	37 / 48 / 15	85% of respondents recognize the benefits of AI-assisted learning.

Survey Items	Response Options	Percentage (%)	Interpretation
5. Main difficulties in English for IT course	Lack of vocabulary / Low motivation / Outdated materials / Difficult technical content	30 / 25 / 25 / 20	Vocabulary and outdated materials are the most common barriers.
6. Preferred AI features for ESP learning	Pronunciation feedback / Grammar correction / Translation / Interactive chat	22 / 28 / 18 / 32	Interactive chat and grammar correction are most desired by students.
7. Willingness to use AI regularly in future learning	Yes / No / Not sure	78 / 5 / 17	Strong willingness (78%) to adopt AI tools more systematically.

- Outdated materials: The current ESP textbooks are largely based on older editions such as *Oxford English for Information Technology* (2011), which no longer fully reflects modern IT terminology and technological advances.

- Traditional teaching methods: ESP classes still rely heavily on grammar-translation and vocabulary memorization. Communicative activities, simulations, and project-based tasks are limited.

Table 2. Summary of Interview Findings (Lecturers' Perspectives)

Themes	Key Findings	Illustrative Quotes	Interpretation
1. Current Use of AI in Teaching	AI tools such as ChatGPT and Grammarly are occasionally used to support writing correction and vocabulary explanations.	"I sometimes use ChatGPT to explain technical terms, but not as a formal classroom activity."	AI use is still spontaneous, not systematically integrated into lesson design.
2. Perceived Benefits	AI saves preparation time, enhances feedback quality, and provides authentic	"It helps me prepare examples faster and provide	Lecturers acknowledge efficiency and personalization as

Themes	Key Findings	Illustrative Quotes	Interpretation
	examples for IT-related contexts.	personalized feedback for students.”	key strengths of AI.
3. Major Challenges	Lack of institutional support, insufficient training, and concerns about plagiarism or overreliance on AI tools.	“Students tend to copy AI-generated answers instead of developing their own ideas.”	Ethical use and academic integrity are significant challenges.
4. Students’ Engagement with AI	Students show curiosity and enthusiasm but lack strategic skills to use AI effectively for learning.	“They are excited but don’t really know how to learn <i>with</i> AI.”	Need for explicit instruction on AI literacy and responsible use.
5. Suggestions for Improvement	Training workshops, guided AI-integrated lesson plans, and inclusion of AI in assessment design.	“We need practical workshops to learn how to apply AI tools step by step.”	Professional development and pedagogical frameworks are essential.

- Low learner motivation: Many IT students view English as a secondary subject, prioritizing technical modules instead. Consequently, they invest less time and effort in language learning.

These findings serve as a foundation for exploring how **Artificial Intelligence (AI)** can be integrated into ESP instruction to modernize teaching practices, enhance student engagement, and improve learning outcomes.

3.2. Case Studies and results

AI-Supported Lesson Implementation in English for IT

To further illustrate the practical application of Artificial Intelligence (AI) in English for Specific Purposes (ESP) at Hai Phong University, two lesson implementations based on *Oxford English for Information Technology* (Glendinning & McEwan, 2011) were conducted. These lessons correspond to **Unit 1: Computer Users** and **Unit 3: Computer**

Applications, both of which are fundamental topics in the ESP syllabus for IT students. The lessons were redesigned with AI-assisted components to enhance learner engagement, autonomy, and digital competence.

Case Study 1: AI-Enhanced Lesson on Unit 1 - “Computer Users”

Overview:

Unit 1 introduces basic computer concepts, including hardware, software, and system components. Traditionally, the lesson relied on teacher explanation, vocabulary memorization, and short comprehension exercises. To increase interaction and personalization, AI tools were incorporated into the teaching process.

Implementation:

The revised lesson integrated several AI applications:

- **ChatGPT** was used to generate simplified explanations of computer components and to simulate Q&A practice between “student” and “virtual IT assistant.”

- **Quizlet AI** created adaptive flashcards for key terms such as *processor*, *memory*, *software*, *storage*, *output device* and *input device*.

- **Kahoot** provided an interactive quiz for vocabulary consolidation.

- **Grammarly** assisted students in improving short written summaries about computer functions.

The class followed a blended learning model: students first interacted with AI-based vocabulary tools independently, then collaborated in groups to summarize the main functions of a computer using

ChatGPT-generated dialogues. The teacher acted as a facilitator, guiding students in verifying AI outputs and correcting conceptual errors.

Pedagogical Impact:

Students demonstrated improved vocabulary retention and greater confidence in explaining IT-related terms. The integration of ChatGPT and Quizlet fostered autonomous learning habits, while Kahoot quizzes increased participation. The immediate feedback from AI tools also reduced teacher workload in vocabulary assessment and writing correction.

Discussion:

The findings suggest that AI-supported instruction can make abstract technical content more accessible and engaging. However, the lesson revealed potential risks of overreliance, as some students accepted AI explanations without critical evaluation. This underlines the importance of teacher mediation in validating AI-generated information.

Case Study 2: AI-Integrated Lesson on Unit 3 - “Computer applications”

Overview: Unit 3 focuses on terminology and functions of common input and output devices, including keyboards, scanners, monitors, and printers. The goal was to help students describe and compare these devices accurately in English.

Implementation:

AI tools were applied across all lesson stages:

- **Quizlet AI** introduced key

terminology with images and audio for pronunciation support.

- **ChatGPT** provided customized examples of device descriptions (e.g., “A scanner converts an image into a digital file that can be edited and stored”).

- **ELSA Speak** offered pronunciation training for technical words such as *resolution*, *pixel*, and *touchscreen*.

- **Padlet** was used as a collaborative online board where students uploaded short descriptions and images of I/O devices.

- **Kahoot** concluded the lesson with a formative assessment reviewing key vocabulary and functions.

Students worked in pairs to write and present short paragraphs describing their preferred I/O devices. AI support tools enabled independent correction, real-time feedback, and peer review through digital collaboration.

Pedagogical Impact: Students exhibited higher motivation and more fluent use of technical vocabulary. The use of AI for pronunciation and self-assessment encouraged learner autonomy and digital literacy. The collaborative nature of AI platforms (Padlet, Kahoot) also strengthened teamwork and communication skills.

Discussion: AI tools provided authentic, multimodal learning experiences that bridged the gap between language learning and IT practice. However, challenges included unequal access to digital devices and varying levels of technological competence among students. Additionally, teachers needed to monitor students’ use of

AI-generated texts to ensure academic integrity.

Synthesis and Reflection

Across both case studies, the integration of AI transformed traditional ESP lessons into interactive, learner-centered sessions. The main benefits observed were:

- Enhanced vocabulary mastery through adaptive learning systems (Quizlet AI).

- Improved pronunciation and fluency with real-time AI feedback (ELSA Speak).

- Increased learner autonomy and engagement in collaborative digital environments (Padlet, ChatGPT).

- Greater teaching efficiency and personalized assessment.

However, limitations persisted in the areas of:

- Critical evaluation of AI-generated content.

- Digital readiness among students and instructors.

- Ethical considerations, especially plagiarism and overdependence on AI assistance.

Overall, these AI-integrated lessons demonstrated that when appropriately guided, AI can serve as a powerful pedagogical assistant in ESP contexts. The case studies provide evidence supporting the potential of AI to enhance both linguistic and professional competencies of IT students at Hai Phong University.

4. Conclusion and Recommendations

This paper has explored the application of Artificial Intelligence in teaching English for IT at Hai Phong University. The findings show that AI provides powerful tools for content creation, personalized learning, assessment, and student engagement. By integrating AI, lecturers can modernize curricula, enhance efficiency, and align ESP instruction with real-world IT practices. Students, meanwhile, benefit from increased autonomy, motivation, and access to personalized support.

However, challenges such as overreliance, accuracy limitations, infrastructure needs, and ethical concerns must be carefully addressed. AI should not replace human instructors but should serve as a complementary tool that enhances the teaching and learning process.

Recommendations:

For Universities: Invest in digital infrastructure, AI-supported platforms, and professional training for lecturers. Establish policies for ethical AI use.

For Lecturers: Adopt AI tools selectively to enhance teaching, while maintaining their role as facilitators and mentors.

For Students: Use AI responsibly, balancing technological support with independent learning and critical thinking.

For Researchers: Conduct empirical studies to measure the effectiveness of AI-

supported ESP instruction in Vietnamese higher education.

By adopting a thoughtful, balanced approach, Hai Phong University can harness AI to transform ESP teaching, equipping IT students with essential English skills for academic success and professional development in the digital age.

REFERENCES

1. Ahmad, K., Corbett, G., Rogers, M., & Sussex, R. (1985), *Computers, language learning and language teaching*, Cambridge University Press.
2. Alemi, M., & Bahari, A. (2022), Artificial intelligence and the future of language education, *Journal of Applied Linguistics and Language Research*, 9(1), 45-59.
3. Al-Samarraie, H., Teng, B. K., Alzahrani, A. I., & Alalwan, N. (2018), E-learning continuance satisfaction in higher education: A unified perspective from instructors and students, *Studies in Higher Education*, 43(11), 2003-2019, <https://doi.org/10.1080/03075079.2017.1298088>.
4. Boulton, A., & Cobb, T. (2017), Corpus use in language learning: A meta-analysis, *Language Learning*, 67(2), 348-393, <https://doi.org/10.1111/lang.12224>.
5. Eric H. Glendinning, & McEwan, J. (2011), *Oxford English for Information Technology* (2nd ed.), Oxford University Press.

6. Godwin-Jones, R. (2021), Emerging technologies: Artificial intelligence and language learning, *Language Learning & Technology*, 25(1), 4-14. <https://doi.org/10.10125/44712>.
7. Hwang, G. J., Xie, H., Wah, B. W., & Gašević, D. (2020), Vision, challenges, roles, and research issues of Artificial Intelligence in education, *Computers and Education: Artificial Intelligence*, 1, 100001, <https://doi.org/10.1016/j.caeai.2020.100001>.
8. Jin, T., & Zhang, H. (2023), Integrating AI chatbots into ESP teaching: A case study of engineering English, *Asian ESP Journal*, 19(3), 67-88.
9. Kukulska-Hulme, A., & Shield, L. (2008), An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction, *ReCALL*, 20(3), 271-289, <https://doi.org/10.1017/S0958344008000335>
10. Li, S., & Ni, H. (2023), Exploring students' attitudes toward AI-assisted English learning tools, *Computer Assisted Language Learning*, 36(5), 1032-1050, <https://doi.org/10.1080/09588221.2021.1949049>.
11. Richards, J. C., & Rodgers, T. S. (2014), *Approaches and methods in language teaching* (3rd ed.), Cambridge University Press.
12. Zhang, Y., & Chen, Q. (2022), AI-enhanced ESP learning: Opportunities and challenges in higher education, *International Journal of Educational Technology in Higher Education*, 19(1), 84-101, <https://doi.org/10.1186/s41239-022-00391-9>.
13. Zheng, L., & Wang, S. (2021), The impact of Artificial Intelligence on ESP curriculum design, *Journal of English for Specific Purposes World*, 22(62), 1-15.
14. Hai Phong University (2024), *English for Information Technology course outline* (Unpublished internal document), Hai Phong.