

Interdisciplinary Approach to Training Personnel for the Tourism Industry in Conditions of Crisis and Military Challenges

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ABSTRACT:

The academic paper is devoted to the justification of an interdisciplinary approach to training personnel for the tourism industry, capable of acting effectively in conditions of crises and military challenges. Based on a systematic analysis and comparison of educational programs of Ukrainian and European universities, the fragmentation and reactivity of domestic education were revealed, while leading foreign universities implement a proactive, integrated model. In response to the challenges, a conceptual model is proposed that combines the traditional professional core with four mandatory integrative modules: crisis management and security, psychology and communication in extreme conditions, digital recovery tools, sustainable development and ethics. The model provides for a two-level implementation mechanism through consortia of social partnership "university-business-state" and organizational training aimed at forming an adaptive specialist-transformer. The conclusions emphasize that the transformation of the educational paradigm on the basis of interdisciplinarity is a critical factor in building a sustainable, competitive tourism industry in Ukraine in the post-war period.

Keywords: interdisciplinary approach, training, tourism industry, crisis management, resilience

1. Introduction

Tourism is one of the important sectors of the economy, which plays a significant role in

creating national income and jobs. Ukraine has also paid special attention to the development of domestic and international tourism in recent

years. Even while the tourism industry offers many prospects in terms of infrastructure, service quality, and employee training, much work remains to be done to meet worldwide standards in these areas.

The lack of highly qualified personnel for the industry is one of the main problems in the development of the tourism sector. The effectiveness of personnel training is more based on theory, and the development of practical skills is insufficient. Therefore, the need to adapt the training and education of personnel in the tourism sector to modern and international requirements is growing every day.

The relevance of this research is underlined by the JEL classifications: I23 (Higher Education and Research Institutions) and I25 (Education and Economic Development), which frame the discussion within the framework of educational economics, emphasizing the role of human capital formation for economic resilience. L83 (Sports; Gambling; Recreation; Tourism) directly addresses the respective sector, while O15 (Human Resources; Human Development; Income Distribution; Migration) emphasizes human resource development as a key factor in regional development, especially in the post-crisis recovery period. Finally, Z32 (Tourism and Development) links the operational aspects of tourism to the broader sustainable development goals that are critically examined during and after conflicts.

Thus, the development and implementation of an interdisciplinary approach to training personnel for the tourism industry is becoming increasingly relevant. This approach aims to form a new type of specialist – a resilient, adaptive crisis manager-transformer, capable not only of surviving in conditions of uncertainty but also of restoring, reinvesting and developing the tourism potential of the regions of Ukraine in the post-war period on the basis of innovation, ethics and sustainable development (UNISDR, 2015; Barvinok, 2022).

The purpose of the research is to theoretically substantiate and develop the concept of an interdisciplinary approach to training personnel for the tourism industry, capable of ensuring the stability and recovery of the industry in conditions of crises and military challenges.

2. Methods

The research is based on a comprehensive approach that combines theoretical analysis and empirical methods. Scientific publications on tourism education, crisis management and recovery, official strategic papers, Ukrainian university curriculum, and analytical reports on the market's status during times of war serve as the theoretical basis (Barna, 2024; UNISDR, 2015).

A number of complementary methods were used to solve the tasks. Systematic, comparative analysis and generalization made it possible to assess the educational system and international experience. Content analysis of programs and expert assessments revealed gaps in competencies and the needs of the industry.

The synthesis of the conclusions obtained in this way with the results of other methods formed an objective foundation for the key scientific result: a conceptual model of an interdisciplinary educational program was developed through modeling. The ultimate goal of this program is the purposeful formation of a new generation of stable and adaptive specialists capable of ensuring the development of the tourism industry in conditions of instability.

3. Literature review

The theoretical and legal basis for the formation of competencies of tourism professionals is formed by fundamental documents: the Constitution of Ukraine (1996/2016), the laws “On Higher Education” (2014) and “On Education” (2017), which establish the principles of continuity, integration and a competency-based approach. These principles are further developed in the current Strategy for the Development of Higher Education in Ukraine for 2022–2032 (Cabinet of Ministers of Ukraine, 2022), which outlines the modernization of educational content in line with European standards and the challenges of post-war recovery. This framework is reinforced by the UN Global Sustainable Development Goals and the Global Code of Ethics for Tourism (2015), which define tourism as a force for inclusive socio-economic recovery (UNISDR, 2015). The practical application of these norms is detailed in national classifications (Verkhovna Rada of Ukraine, 2005), yet in the context of military challenges, a critical contradiction arises between

these high requirements and the real state of personnel training, which often remains theoretical and disconnected from the needs of the market operating in crisis conditions (Barna, 2024; Lukianets, 2021). The foundation for modern discussions was laid in the studies of scientists such as T. I. Tkachenko and O. O. Mykytiuk, who substantiated the need to integrate knowledge from economics, management, geography and cultural studies to form a competitive specialist. This systemic view of the industry was further developed in fundamental works on tourismology and personnel management (Toryanik, Sardak, & Dzhindzhoyan, 2022; Malska, Bordun, & Zhuk, 2013). Their ideas became the theoretical basis for further, more applied studies. With the onset of hybrid challenges after 2014, the emphasis in studies gradually shifted to the formation of crisis competence. In particular, N. V. Hrankevych examined in detail the components of such competence, insisting on the inclusion of elements of anti-crisis management, psychological resilience and life safety in the curricula. International experience confirms that effective crisis management in tourism requires specific organizational learning mechanisms (Batorski, 2021; Metallinou, 2018) and an understanding of structural vulnerabilities (Cró & Martins, 2017; Davis, Wisner, Blaikie, & Cannon, 2004).

The full-scale war since 2022 has exacerbated the issue of the practical implementation of the educational process in conditions of continuous challenges. In this context, the works of Z. B. Zhyvko and N. Ya. Polishchuk analyze organizational and pedagogical conditions, focusing on critically important digital and hybrid formats of training, which directly correlate with categories related to investments in human capital in an unstable environment. The modernization of the educational environment itself has become the subject of wide discussion among practitioners (Ivanytskyi & Ponomarenko, 2024; Kharkiv National University of Urban Economy, 2020), emphasizing interactive methods (Miziuk & Myronov, 2022) and digital transformation (Voronkova, 2024). In parallel, attention is growing to the psychological and ethical dimension of training, as evidenced by the research of O. L. Harasymchuk on the development of emotional intelligence and communicative tolerance of future specialists for working with vulnerable categories of clients.

A significant direction of Ukrainian science focuses on the role of tourism in post-crisis recovery and sustainable development. Scientists, including Yu. M. Mandziuk, T. O. Chubrei and S. M. Prytula, argue that interdisciplinarity should prepare specialists not only for the survival of the industry but also for its transformational role in the revitalization of territories. The current state of the industry during the war is being actively monitored by the State Agency for Tourism Development (2026) and analyzed by numerous researchers recording sectoral changes (Bazhenova, Polohovska, & Bykova, 2022; Bryhilevych, 2023; Gabryjończyk & Kudinova, 2023; Korchevska, 2022; Zarubina, Sira, & Demchuk, 2022). Scientists point to the need to integrate knowledge from territorial marketing, project management and military history to create new, meaningful tourism products. In this context, the concept of "dark tourism" and the phenomenon of attraction residuality are gaining relevance, offering theoretical models for comprehending tragic heritage (Cohen, 2011; Weaver & Lawton, 2007). Ukrainian researchers are already actively developing these areas, substantiating the prospects of military tourism (Barvinok, 2022; Savchuk, 2024) and ecotourism (Okocha, 2025) as new standards for the industry. The practical dimension of this integration is revealed in the studies of A. P. Humeniuk and I. S. Sadovenko, who analyze successful cases of partnerships between educational institutions with business and communities in the face of real challenges, a vector also supported by comparative European studies (Bezkorovaina & Shevchenko, 2024; Tsytko & Wierzbik-Strońska, 2022).

The TEFI initiative offers a value-based framework for education that includes ethics, sustainable development, and social responsibility (Liburd et al., 2018). Experience in overcoming the consequences of natural disasters and conflicts indicates the critical role of communication, risk management, and psychological resilience (Cahyanto & Pennington-Gray, 2014; Handler, 2016). Modern crisis research emphasizes the importance of learning systems before, during, and after shocks (Lee, Yeo, & Na, 2020; Sydnes, Sydnes, & Hamnevoll, 2021). The UNISDR terminology (2009) and the Sendai Framework (UNISDR, 2015) provide a universal language for such competences, which is still poorly reflected in Ukrainian educational programs. These

directions emphasize the need for interdisciplinary synthesis.

Thus, the literature review confirms the relevance of the research and reveals the main gap: the lack of a holistic concept of interdisciplinary training of tourism specialists that would integrate domestic pedagogical experience with international practices of crisis management, digital transformation (Voronkova, 2024) and the ethics of sustainable recovery for work in conditions of unprecedented challenges.

4. Results

The results of the research, supported by an analysis of modern educational trends and programs, confirm the urgent need for a deep transformation of training for the tourism industry. A comparative analysis of current curricula of leading universities of Ukraine (based on official data and conference materials, in particular, Kharkiv National University of Urban Economy named after O. M. Beketov, 2020, Ivanytskyi & Ponomarenko, 2024) indicates a gradual awareness of the challenges. Specialized courses dedicated to crisis management, digital marketing, or the principles of sustainable tourism are emerging in some institutions. However, these initiatives remain fragmented, scattered between different departments, and do not form a coherent interdisciplinary system that would purposefully prepare specialists specifically for work in conditions of prolonged instability and recovery (Bryhilevich, 2023; Okocha, 2025).

Firstly, the conceptual foundations of our research are empirically confirmed in the practice of leading foreign universities (EU, UK, Canada, East Asia). Thus, master's programs, such as the University of Surrey or MODUL University Vienna, are directly focused on the formation of resilience and risk management competencies. Modules dedicated to crisis management in tourism, disaster management and safety psychology are integrated as mandatory components of the educational core, rather than as optional additions.

Secondly, interdisciplinarity has established itself as a standard for successful educational trajectories. Programs developed within

initiatives such as the European Master in Tourism Management (EMTM) are purposefully built on a synthesis of knowledge from management, social sciences, ecology and information technology, forming a value foundation similar to the TEFI principles, which includes ethics, sustainable development and social responsibility (Liburd et al., 2018).

Thirdly, a key feature is a deep practice-orientation, achieved through institutionalized partnership with industry. This is implemented through mandatory internships in leading companies, the use of "live" business cases, and the direct involvement of top managers and CEOs in teaching and evaluating student projects, which ensures ongoing updating of the content of education.

However, direct transfer of these models to the Ukrainian context is impossible without their critical adaptation to the specifics of national challenges. The conceptual model proposed in this research is just such a purposeful adaptation. It takes as a basis proven international trends of interdisciplinarity and practice-orientation, but strategically fills them with specific Ukrainian content, focused on three critical aspects:

- 1) the military and post-traumatic context (which is reflected in the psychology and communication module),
- 2) the restoration of destroyed infrastructure and regional identity (which forms the basis of the sustainable development and digital recovery modules),
- 3) ensuring comprehensive security in the context of hybrid threats (which is the essence of the crisis management and security module).

The comparison demonstrates not differences in level but differences in educational paradigms. Leading foreign programs implement a proactive, value-oriented and integrated model, where knowledge from different disciplines is synthesized to solve complex problems, and partnership with industry is the engine of relevance. The Ukrainian system, even in its current attempts at modernization, demonstrates a reactive and fragmented model, where new challenges are "superimposed" on the old, disciplinary-rigid structure, and the connection with practice remains weak (Table 1).

Table 1. Comparative analysis of training programs for tourism industry specialists in Ukraine and abroad

Comparison criterion	Ukrainian HEIs (based on program analysis, 2020-2024)	Leading foreign HEIs (EU, UK, Canada, Australia)
1. Philosophy and value base	The operational-technological approach prevails. The values of sustainable development, ethics, and social responsibility are often declarative in nature and are not system-forming (Kovalenko & Velykodna, n.d.).	A clearly expressed value base integrated into all modules (e.g. TEFI principles: ethics, sustainability, responsibility). Emphasis on forming a citizen and a responsible professional (Liburd et al., 2018).
2. Interdisciplinarity	Fragmented. New challenges (crisis, digitalization) are often introduced as separate, isolated courses that do not create synergy with the main core (Bryhilevych, 2023).	Systemic and structural. Programs (e.g., European Master in Tourism Management) are structured as a synthesis of economics, sociology, geography, ecology, and IT. Interdisciplinarity is a design principle, not an addition.
3. Integration of practice and connection with industry	Practice is often formal or disconnected from the educational process. Partnerships with business are mostly episodic (guest lectures, excursions).	Deeply integrated and institutionalized. Mandatory semester-long internships, real-world case studies from partner companies, joint research projects, professors-practitioners.
4. Emphasis on resilience and crisis management	The topic of crisis and recovery is only starting to be integrated after 2022, mostly as a separate course, rather than as a component of all disciplines. There is no systematic approach to risk management (Okocha, 2025).	Resilience and risk management are mandatory core modules. Experience in overcoming crises (pandemics, natural disasters) is analyzed as an integral part of tourism management (Batorski, 2021; Handler, 2016).
5. Training methodology	Predominance of passive, lecture formats. Active methods (simulations, project work) are used to a limited extent.	Dominance of active methods: case studies (including failure analysis), simulation games, strategy development for real companies, group projects.
6. Adaptability to local context	Program adaptations to the military and post-traumatic environment are only getting started. There aren't enough specialized modules in military tourism, humanitarian logistics, and crisis psychology.	Strong focus on regional specificities and global challenges. Programs often have specializations (e.g., "Tourism in Developing Countries," "Climate and Tourism").

Source: author's own development

This statement is not a criticism, but a starting point for transformation. The conceptual model proposed in the research with its four integrative modules (crisis, psychology, digitalization, sustainable development) and the “triple helix” mechanism (university-business-state) offers a concrete way to borrow the strengths of international experience – its systematicity, practice-orientation and value core – and their deep adaptation to the specifics of the Ukrainian context (war trauma, infrastructure restoration, hybrid threats). Thus, the goal is not to copy, but to create an authentic Ukrainian model of training specialists, capable of generating not only operational managers, but also leaders of the restoration and transformation of the tourism industry.

Analysis of programs for training specialists in tourism requires specification at the level of individual universities to clearly identify differences in approaches. The table below compares the characteristics of programs of Ukrainian universities (KNUKiM¹, KNUMG²,

LTEU³, ZNU⁴) and leading foreign universities (University of Surrey, MODUL University Vienna, University of British Columbia, Bournemouth University, Griffith University and others) according to key criteria for training specialists in crisis conditions. This makes it possible to move from general statements to specific examples that illustrate systemic differences in the organization of the educational process (Table 2). Leading foreign HEIs demonstrate a proactive, integrated and industry-oriented model. They are built on a clear value base, similar to the TEFI principles (Liburd et al., 2018), where ethics and sustainability are integrated into all modules. Interdisciplinarity is not an addition but a design principle, and resilience and risk management constitute a mandatory core of training, which includes the analysis of real-world experience in overcoming crises (Batorski, 2021; Handler, 2016). Practical orientation is ensured by institutional partnerships through mandatory internships and work with live cases.

Table 2. Comparative analysis of training programs for tourism industry specialists in Ukraine and abroad (using the example of specific universities)

Comparison criterion	Ukrainian HEIs (using the example of the programs of KNUKiM, KNUMG, LTU, ZNU, 2020-2024)	Leading foreign HEIs (using the example of specific universities)
1. Philosophy and value base	The operational-technological approach prevails. The values of sustainable development, ethics, and social responsibility are often declarative in nature and are not system-forming (Kovalenko & Velykodna, n.d.).	University of Surrey (UK), MODUL University Vienna (Austria): Clearly expressed value base integrated into all modules (TEFI principles: ethics, sustainability, responsibility). Emphasis on the formation of a citizen and a responsible professional (Liburd et al., 2018).
2. Interdisciplinarity	Fragmented. New challenges (crisis, digitalization) are often introduced as separate, isolated courses that do not create synergy with the main core (Bryhilevych, 2023).	European Master in Tourism Management (EU University Consortium), University of British Columbia (Canada): Systemic and structural. The programs are structured as a synthesis of economics, sociology, geography, ecology and IT.

¹ Kyiv National University of Culture and Arts

² Kharkiv National University of Urban Economy named after O.M. Beketov

³ Lviv University of Trade and Economics

⁴ Zaporizhia National University

Comparison criterion	Ukrainian HEIs (using the example of the programs of KNUKiM, KNUMG, LTU, ZNU, 2020-2024)	Leading foreign HEIs (using the example of specific universities)
		Interdisciplinarity is a design principle, not an addition.
3. Integration of practice and connection with industry	Practice is often formal or disconnected from the educational process. Partnerships with business are mostly episodic (guest lectures, excursions).	Bournemouth University (UK), Griffith University (Australia): Deeply integrated and institutionalized. Mandatory semester-long internships, real-world case studies from partner companies (e.g. TUI, Expedia), joint research projects, professors-practitioners.
4. Emphasis on resilience and crisis management	The topic of crisis and recovery is only starting to be integrated after 2022, mostly as a separate course, rather than as a component of all disciplines. There is no systematic approach to risk management (Okocha, 2025).	University of Queensland (Australia), University of Stavanger (Norway): Resilience and risk management are mandatory core modules. Experience in overcoming crises (pandemics, natural disasters, conflicts) is analyzed as an integral part of tourism management (Batorski, 2021).
5. Training methodology	Predominance of passive, lecture formats. Active methods (simulations, project work) are used to a limited extent.	Ecole hôtelière de Lausanne (Switzerland), Hong Kong Polytechnic University: Dominance of active methods: case studies (including failure analysis), simulation games in hotel laboratories, development of strategies for real companies, group projects.
6. Adaptability to local context	Program adaptations to the military and post-traumatic environment are only getting started. There aren't enough specialized modules in military tourism, humanitarian logistics, and crisis psychology.	University of Malta, University of Iceland: Strong focus on regional specificities and global challenges. Programs often have specializations (e.g., Coastal and Maritime Tourism, Nordic Tourism, Climate and Tourism).

Source: author's own development

Thus, the comparison distinguishes two paths: the Ukrainian one, characterized by the addition of individual elements to the existing structure, and the foreign one, based on a holistic redesign of the educational landscape. This contrast confirms the need for Ukraine to transform the educational paradigm, rather than its gradual improvement. The conceptual model of interdisciplinary training proposed in the

research, with its integrative modules and the mechanism of social partnership, is a direct response to the challenges identified by this comparative analysis, offering a path to synthesize international best practices with deep adaptation to the national context.

Comparative analysis at the level of specific universities clearly distinguishes two significantly

different educational logics. Leading foreign universities demonstrate a proactive, integrated and industry-oriented model, where interdisciplinarity, value-based and practice are organic components of a single educational landscape, and resilience to crises is formed as a basic competence. In contrast, Ukrainian programs, even in their current attempts at modernization, mostly reflect a reactive and disciplinary-fragmented model, where the response to new challenges (war, digitalization) is often added to the existing structure, rather than rethinking it from within. This contrast emphasizes the need for a strategic transformation of the educational paradigm in Ukraine, not a gradual improvement. The interdisciplinary training model proposed in the research, with its modular structure and social partnership mechanism, offers a concrete path for such a transformation – a path of synthesis of international best practices with deep adaptation to the specifics of the national recovery context.

Diagnostics revealed problems at four interrelated levels. At the conceptual level, the

“knowledge” paradigm dominates over the competency-based one, which does not form the ability to apply knowledge in non-standard, stressful situations (Andreev et al., 2024). The content level is characterized by the absence in the curricula of disciplines that integrate critically important knowledge about human behavior in a crisis, risk management mechanisms, and legal features of activities under martial law (Barna, 2024). The methodological level reveals limited use of active learning methods, such as simulations and cases of real crises, which are key for practicing practical skills (Miziuk & Myronov, 2022).

Table 3 compares tourism programs using specific higher education institutions as an example – Ivan Franko National University of Lviv (LNU, Ukraine) and MODUL University Vienna (Austria). The choice is due to the fact that both universities have a significant profile in training specialists for the tourism industry and demonstrate different approaches to the formation of educational programs.

Table 3. Table of comparisons for tourism programs

Comparison criterion	Ivan Franko National University of Lviv (Ukraine) <i>“Tourism” major (bachelor/master)</i>	MODUL University Vienna (Austria) <i>Bachelor/Master in Tourism and Hospitality Management</i>
1. Philosophy and goals	Providing fundamental knowledge for working in the tourism industry of Ukraine. Emphasis on cultural aspects, regional tourism, and service organization.	Preparing global leaders and innovators with a focus on sustainability, digital transformation, and entrepreneurship.
2. Program structure	Classic linear structure with mandatory subjects according to the state standard (management, marketing, regional studies, tourism design). Elective courses are limited.	Flexible modular system. Blocks of mandatory core modules (e.g., “Resilience Management”) and a wide choice of specializations (Digital Tourism, Experience Design).
3. Theory and practice	Educational (introductory) and industrial practice, subject to availability. Industry contact often depends on department/student initiative.	Deeply integrated practice: mandatory full-time internship, live cases from partners (e.g., Radisson, Hilton), projects for real business clients.

Comparison criterion	Ivan Franko National University of Lviv (Ukraine) <i>“Tourism” major (bachelor/master)</i>	MODUL University Vienna (Austria) <i>Bachelor/Master in Tourism and Hospitality Management</i>
4. Training methods	Traditional methods are important: lectures, seminars. Interactive methods (case studies, presentations) are favored rather than dominant.	Project-based learning: business process simulations, group projects, workshops with experts, solving real business problems.
5. Internationality	Possibilities for semester exchange (e.g. Erasmus+ program). Mainly Ukrainian.	Global environment: studying in English, over 80% of international students, mandatory mobile semesters or the possibility of double degrees.
6. Connection with industry	Career center operations, job fairs. Partnerships with local tourism businesses.	Institutional Partnership: Educational Advisory Board with industry leaders, direct channel for graduate recruitment, corporate project funding.
7. Crisis adaptation	Issues of crisis management and resilience are mainly considered in a theoretical context. Rapid adaptation of programs during wartime is complicated by bureaucratic processes.	Crisis resilience is a core competency. Programs are constantly updated to take into account global challenges (pandemic, climate). There are separate courses on risk management.

Source: author's own development

A comparative analysis of two specific universities – the Ivan Franko National University of Lviv and the Austrian MODUL University Vienna – clearly demonstrates the systemic difference in educational philosophies for the tourism industry. LNU represents a classical, academic-oriented model, the main task of which is to provide students with a solid theoretical base and train specialists, primarily for the needs of national and regional markets, which are traditionally considered relatively stable. The main challenges for such an approach in modern conditions are the need for greater integration of practical components, increased flexibility of curricula and their adaptation to crisis phenomena. In contrast, MODUL University Vienna embodies a modern global ecosystem model, where education, applied research and business needs are closely integrated.

In response to modern challenges, based on the analysis of international practices of overcoming crises (Handler, 2016; Batorski, 2021) and European approaches to education (Bezkorovaina & Shevchenko, 2024), a detailed profile of an “adaptive specialist-transformer” was formed. The profile of an adaptive specialist-transformer is formed on the basis of the synergy of four complementary clusters of competencies that significantly go beyond the traditional approach to tourism management.

5. Discussion

As the main result, an integrated model is proposed that combines the traditional core of tourism management with four mandatory interdisciplinary modules. The model is aimed at

forming a “hybrid” specialist – an adaptive crisis manager-transformer.

Table 4 acts as a detailed designer and roadmap, transforming the abstract concept of an interdisciplinary approach into a concrete educational product.

Table 4. Structure and content of interdisciplinary modules of the educational program

Module	Goal	Key components	Expected learning outcomes
Crisis management and security in tourism	Developing the ability to predict, prevent and manage crises.	Fundamentals of crisis management (phases: prevention, preparation, response, recovery); geopolitical risk analysis; cybersecurity and data protection; business security management in unstable regions; humanitarian logistics.	The student is able to develop a crisis plan for the enterprise, assess external threats, organize safe evacuation, and ensure information protection.
Psychology and communication in extreme conditions	Developing emotional intelligence, stress resistance, and communication skills during crises.	Psychology of extreme situations and trauma; crisis communication with clients, media, stakeholders; basics of psychological first aid (PFA); conflict management in a stressful environment.	The student can communicate effectively under stress, provide basic psychological support, and lead a team during a crisis.
Digital recovery and innovation tools	Application of technologies for adaptation, restoration and creation of new tourism products.	Digital marketing during a crisis; data analysis for the tourism market; GIS technologies for damage assessment and planning; development of virtual (VR) and augmented (AR) tourism; basics of e-tourism.	The student is able to use digital channels to promote within constraints, create innovative digital tourism products, and analyze data for decision-making.
Sustainable development, ethics and social responsibility	Formation of value orientations for the responsible recovery of the tourism industry.	Ethics of tourism business in conflict situations; regenerative tourism; social inclusion and accessibility of tourism; waste and resource management in the post-crisis period; international standards of social responsibility (ISO 26000).	The student understands the principles of sustainable development, and is able to develop a socially responsible tourism project, and act in accordance with ethical norms.

Source: author's own development

The table structures the four integrative modules according to key parameters, setting a new logic for the educational process.

The module “Crisis Management and Security” integrates knowledge from geopolitics, law and cybersecurity, focusing on the development of real crisis plans for specific contexts. Its effectiveness is assessed through an authentic defense of these plans before a commission of representatives of rescue services and business, simulating a real approval procedure.

The module “Psychology and Communication” borrows the tools of clinical psychology and conflictology, shifting the emphasis from theoretical lectures to practical training in psychological first aid (PFA) skills and complex role-playing games. Objective testing of skills is carried out through situational testing with a standardized patient, which guarantees the assessment of real competencies.

In parallel, the module “Digital Recovery Tools” combines computer science, geoinformatics and data analytics.

Finally, the module “Sustainability and Ethics”, based on social philosophy and concepts of corporate responsibility, provides practical work with a social and project dimension. This includes developing a business plan for a socially oriented startup or conducting an ethical audit of an existing business, and presenting the results to a wide range of stakeholders, which fosters responsibility and argumentation skills.

Therefore, each module is implemented as a practice-oriented project based on interdisciplinary synthesis and assessed through authentic testing with the involvement of external experts, which directly forms the complex competencies of an “adaptive specialist-transformer” and radically changes the traditional educational paradigm.

The proposed model (Figure 1) visualizes the step-by-step and systematic process of forming an adaptive specialist-transformer for the tourism industry in times of crisis. At the top of the model, the ultimate goal is the “Adaptive Transformative Professional,” who possesses three key characteristics: resilience, innovation, and responsibility. The foundation for achieving this goal is the “Professional Core” – the industry’s fundamental disciplines, such as management, service, and marketing. This traditional core is transformed through four integrative modules, each with a unique role. The Crisis Management and Security Module (orange) builds risk management skills, the Psychology and Communication Module (green) develops emotional intelligence and crisis communication, the Digital Recovery Module (blue) teaches digital transformation tools, and the Sustainability and Ethics Module (purple) is responsible for building value orientations. All of them enrich the basic training, adding the interdisciplinary approach necessary for crisis conditions.

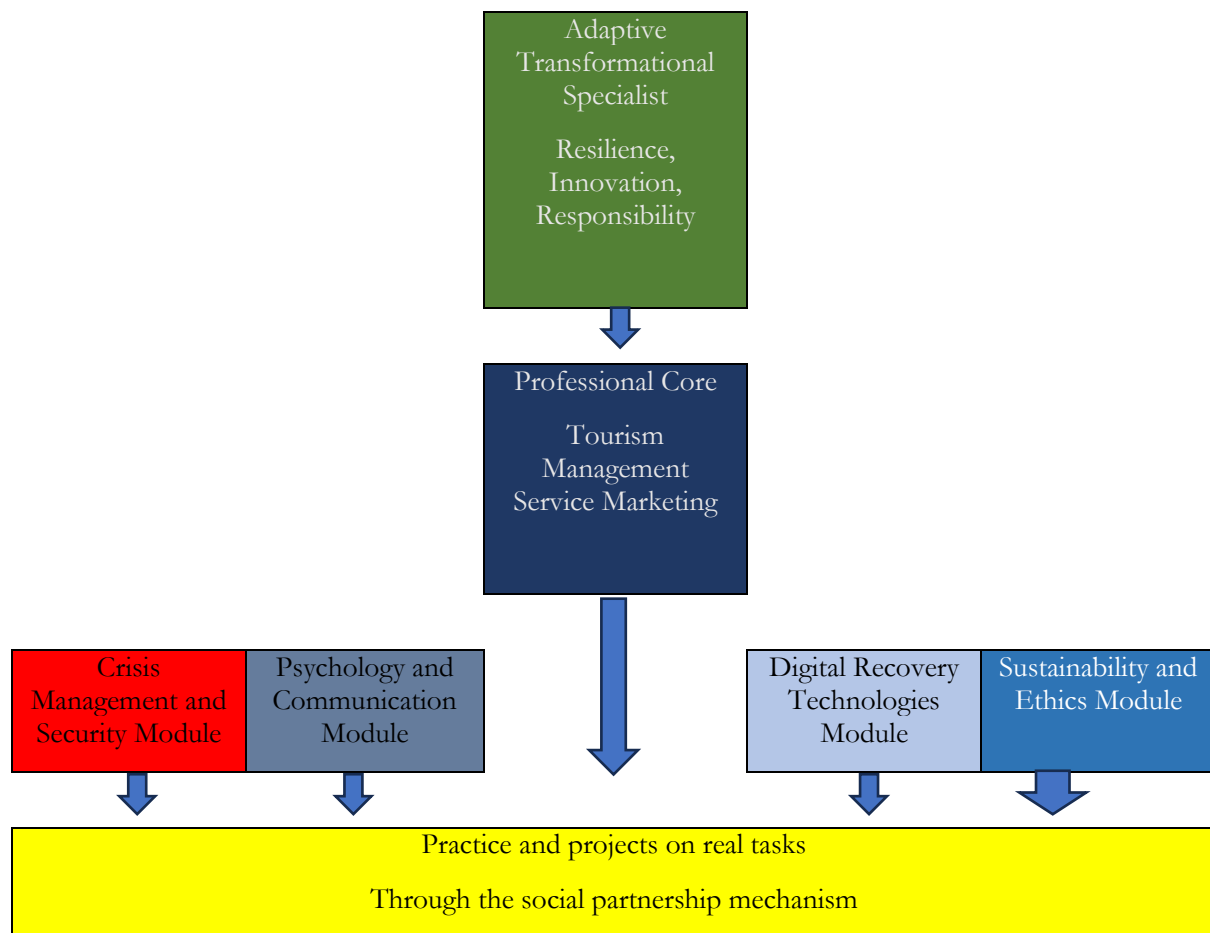


Figure 1. Conceptual model of interdisciplinary training for the tourism industry in times of crisis
Source: author's own development

The final and mandatory stage is practical integration, represented in the model by the mechanism of social partnership (golden block). It is through this mechanism that all the theoretical knowledge and modular competencies obtained are tested on real tasks of the tourism industry, ensuring the transition from training to professional reality. The color scheme of the model not only visually distinguishes the components, but also symbolizes their role: dark green – the goal, blue – the foundation, multi-colored modules – a variety of integrated approaches, and gold – practical implementation.

Thus, the model clearly demonstrates that the formation of a modern competitive specialist occurs not through the linear accumulation of knowledge but through the dynamic integration and transformation of traditional education through specialized interdisciplinary modules, which find their completion and confirmation in practical testing through social partnership with the real sector.

At the first level, the level of educational institutions, a fundamental step is the creation of permanent institutional platforms – consortia or associations of social partnership. Such platforms should include representatives of universities, leading tour operators and hotel chains, the State Agency for Tourism Development (2026), as well as specialized public organizations. The functioning of these structures should be aimed at the practical implementation of several key tasks: joint development and examination of relevant curricula, accreditation of practice bases, involvement of leading practitioners in teaching activities as guest lecturers, and coordination of joint financing of promising projects and research.

Thus, the proposed two-level model creates a synergistic effect: institutional partnership at the educational level ensures legitimacy, resources and relevance of educational programs, while active involvement of business in organizational learning processes creates a stable demand for

qualified specialists of a new formation and innovative educational products. Such interdependence forms a closed cycle of development aimed at building a sustainable and competitive tourism industry of Ukraine in the post-crisis period.

Thus, the results of the research represent not an abstract concept but a comprehensive, structured system of measures – from the content of new training modules to specific mechanisms for their implementation through a partnership between education, business and the state, which is a guarantee of increasing the sustainability of the tourism industry in Ukraine.

6. Conclusion

An analysis of recent educational initiatives and programs of leading Ukrainian universities (based on conference materials from Ivanytskyi & Ponomarenko, 2024; Kharkiv National University of Urban Economy named after O. M. Beketov, 2020) indicates initial but fragmentary attempts to integrate elements of crisis management, digitalization, and sustainable development. However, these initiatives lack systematicity, depth of interdisciplinary synthesis, and an institutionally supported mechanism for constant correction by business.

The foundation for modern discussions was laid in the works of scientists such as T. I. Tkachenko and O. O. Mykytiuk, who substantiated the need to integrate knowledge from economics, management, geography and cultural studies to form a competitive specialist. Their ideas became the theoretical basis for further, more applied studies. With the onset of hybrid challenges after 2014, the emphasis in studies gradually shifted to the formation of crisis competence. In particular, N. V. Hrankevych examined in detail the components of such competence, insisting on the inclusion of elements of anti-crisis management, psychological resilience and life safety in the curricula.

The works of Z. B. Zhyvko and N. Ya. Polishchuk analyze organizational and pedagogical conditions, focusing on critically important digital and hybrid formats of training, which directly correlate with categories related to investments in human capital in an unstable

environment. In parallel, attention is growing to the psychological and ethical dimension of training, as evidenced by the research of O. L. Harasymchuk on the development of emotional intelligence and communicative tolerance of future specialists for working with vulnerable categories of clients.

A significant contribution of Ukrainian science focuses on the role of tourism in post-crisis recovery and sustainable development. Scientists, including Y. M. Mandziuk, T. O. Chubrei and S. M. Prytula, argue that interdisciplinarity should prepare specialists not only for the survival of the industry but also for its transformational role in the revitalization of territories. They point to the need to integrate knowledge from territorial marketing, project management and military history to create new, meaningful tourism products. The practical dimension of this integration is revealed in the studies of A. P. Humeniuk and I. S. Sadovenko.

This experience is valuable, but its implementation in Ukraine is impossible without deep adaptation to the specifics of the war and post-war context, the psychology of traumatized communities, and the needs for the restoration of destroyed infrastructure. The conceptual model proposed in this research, which combines a professional core with four integrative modules (crisis management, psychology, digital technologies, sustainable development), as well as a two-level implementation mechanism (social partnership consortia and organizational learning of enterprises), offers such an adaptive path.

Thus, the future competitiveness and sustainability of the Ukrainian tourism industry directly depend on the ability of the educational system to rapidly transform. This transformation should not consist of cosmetic changes but in the transition from a narrowly disciplinary to a flexible interdisciplinary model that generates not just qualified performers, but leaders capable of crisis management, innovative recovery and ethical decision-making. Further studies should be directed at monitoring and evaluating pilot projects for the implementation of the proposed modules in individual universities, as well as studying the effectiveness of specific social partnership instruments in the context of decentralization and regional recovery.

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8. Author Declaration

The authors confirm that this manuscript is an original work, has not been previously published, and is not under consideration for publication elsewhere. All sources, ideas, and materials used in the preparation of this article have been appropriately cited in accordance with academic standards.

The authors declare that there are no conflicts of interest, financial or otherwise, that could have influenced the research design, data collection, analysis, interpretation, or the presentation of the findings.