

Military Education and Training in University: The Impact of the Russia-Ukraine Conflict on China

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Abstract

The Russia–Ukraine conflict reveals transformative shifts in modern warfare across technological, mobilizational, and cognitive domains. The widespread use of drones, loitering munitions, electronic warfare, and open-source intelligence has lowered combat’s technological threshold, driving the “civilianization” of military capabilities. Meanwhile, cyber operations, information warfare, and social media have extended battlespace into cognitive domains, making information literacy and psychological resilience vital. Divergent mobilization systems further show that quality reserve personnel are decisive for protracted conflict. These changes challenge China’s university-based military education, which remains focused on drills, fitness, and general theory. Traditional training is insufficient for intelligentized, system-of-systems warfare, which requires technical proficiency, specialized skills, and security awareness. As universities concentrate high-quality youth, they are crucial platforms for strengthening defense reserves. Drawing lessons from the Russia–Ukraine war, this paper analyzes modern warfare’s demands on military human resources, identifies structural gaps in China’s military education, and proposes pathways toward a professionalized, intelligentized, and integrated peacetime-war-time training system. The study aims to offer theoretical and practical guidance for enhancing national defense readiness in the new era.

Keywords: Higher Education Institutions; Military Education; Military Training; The Russia-Ukraine Conflict



1. Introduction

Since its outbreak in 2022, the Russia–Ukraine conflict has rapidly evolved into the largest, longest-lasting, and most technologically intensive high-intensity modern local war in recent years. Beyond its far-reaching geopolitical implications, the conflict offers a highly representative real-world case of military technological innovation, transformations in operational paradigms, and the functioning of national mobilization systems. The large-scale deployment of unmanned aerial vehicles and loitering munitions, the deep integration of informationized command-and-control systems, and the continuous interplay of cyber warfare and public opinion warfare have made the conflict a critical lens through which to observe the evolving character of future wars. The high level of technological density and operational complexity displayed in this war indicates that the demand structure for human resources in modern warfare has undergone a fundamental shift. Rather than relying primarily on physically capable soldiers in the traditional sense, contemporary warfare increasingly depends on multifaceted personnel equipped with technical proficiency, information literacy, psychological resilience, and specialized professional skills.

Within China's current legal framework, the Military Service Law and the National Defense Education Law explicitly designate institutions of higher education as key platforms for implementing nationwide defense education. Universities bear the responsibility of cultivating students' national defense awareness, strengthening their military qualities, and providing talent reserves for the construction of the national defense mobilization system. For a long period, university-level military training has primarily focused on formation drills, physical conditioning, basic skills, and general national defense theory. Characterized by short training durations and relatively fixed content, such programs have centered mainly on discipline education and the enhancement of national defense consciousness. However, the emerging characteristics of modern warfare revealed by the Russia–Ukraine conflict compel a reassessment of whether the existing system remains adequate for the demands of the new era.

From existing research, the Russia-Ukraine conflict is increasingly regarded as a watershed in the transformation of contemporary warfare technology and force structure. In analyses by international scholars and military think tanks, one line of research focuses on how emerging combat capabilities—such as unmanned aerial vehicles, loitering munitions, and electronic warfare—have reshaped the battlefield, noting that both Russia and Ukraine have engaged in competition over spectrum suppression, protection of command-and-control nodes, and integrated air-ground defense systems, with the information and electromagnetic domains becoming decisive factors in determining battlefield outcomes. Another line of research concentrates on cyber offense-defense and cognitive operations, arguing that large-scale cyberattacks, hacker “volunteers”, and social-media manipulation during the conflict signal that cyberspace and the information sphere have shifted from peripheral roles to key variables influencing the course of war, further driving militaries to develop new concepts such as “cognitive-domain operations” and “full-spectrum information warfare”.

In advancing reforms to national defense education and university military training in response to the demands of modern warfare, China had already taken steps prior to the Russia-Ukraine conflict. The 2019 revised edition of the Military Curriculum Teaching Syllabus for Regular Higher Education Institutions explicitly incorporated modules on “informationized warfare” and “modern warfare and informationized equipment.” Domestic academic research also began relatively early and has more recently centered on structural issues such as outdated training content and overly homogeneous instructional methods under conditions of informationized warfare. Scholars generally advocate reconstructing the national defense education system in universities through the integration of modules such as virtual simulation, cyber offense-defense, emergency protection, and information-technology skill training, in order to align university military education with the capability requirements of intelligentized future battlefields and cultivate more versatile national defense talent.

However, existing research, while addressing the general directions for reforming university military

training, remains insufficient regarding the systematic integration of emerging combat elements—such as unmanned systems, intelligent technologies, cyber operations, and cognitive confrontation—into curriculum design and training modules. Therefore, this study addresses the following research question: in the context of modern warfare demands revealed by the Russia-Ukraine conflict, how can China's university-based national defense education and military training be systematically restructured in terms of curriculum content, instructional methods, and competency objectives to cultivate a versatile reserve force capable of operating effectively in intelligentized battlefields.

2. The Core Characteristics of the Russia-Ukraine Conflict and Their Implications for Military Human Resources

2.1 The Core Characteristics of the Russia-Ukraine Conflict

The Russia-Ukraine conflict highlights a marked trend toward the “civilianization” of contemporary armed confrontation, wherein civilian technologies, societal resources, and nontraditional actors play increasingly prominent roles on the battlefield. Throughout the conflict, large numbers of commercially available quadcopter drones were modified for reconnaissance, fire adjustment, and improvised munition delivery, while Ukrainian civilian teams employed 3D printing and open-source technologies to adapt and upgrade unmanned systems. These developments demonstrate that the operational threshold for high-technology equipment has significantly declined and that their production and employment are no longer exclusively dependent on professional military forces. At the same time, Ukraine's rapid formation of its Territorial Defense Forces in the early phase of the war, mobilizing hundreds of thousands of civilians for urban defense, logistics support, and intelligence gathering, and Russia's partial mobilization both underscore that society-wide mobilization capacity has become a crucial component of national warfighting potential. The informational and cognitive dimensions of warfare have likewise exhibited unprecedented openness and societal participation: Ukrainian cyber units and associated volunteer groups launched cyberattacks against Russian targets; social media platforms emerged as spaces for real-time disclosure of battlefield developments and for contesting international narratives; and incidents such as deepfake videos depicting President Zelensky allegedly announcing surrender circulated widely online. These phenomena point to a fundamental shift wherein information discernment, psychological resilience, and media literacy are no longer competencies reserved for specialized institutions, but essential capabilities for both combatants and civilians engaged, directly or indirectly, in modern conflict.

Simultaneously, both Russia and Ukraine relied extensively on social organizations, volunteer groups, and civilian technical communities in areas such as medical evacuation, vehicle repair, and communications support, resulting in logistics systems characterized by a “military-led, socially integrated” structure. Taken together, the Russia-Ukraine conflict reveals that contemporary warfare is evolving toward greater openness, societal embeddedness, and technological democratization, with the traditional boundaries between military and civilian spheres becoming increasingly blurred.

2.2 Implications for Military Human Resources

The “civilianization” of warfare demonstrated in the Russia-Ukraine conflict has fundamentally reshaped the structural demands placed on military human resources. Throughout the conflict, large numbers of ordinary civilians participated directly in the war effort by operating commercial drones, contributing to community-based defense units, providing logistical support, or engaging in cyber activities. This phenomenon indicates that modern warfare no longer relies solely on professional soldiers or individuals with advanced technical backgrounds; rather, it requires the broad mobilization of societal members who possess diverse disciplinary knowledge and skill sets. The diffusion of civilian technologies, the expansion of operational domains, and the diversification of mission types mean that virtually all young people with formal educa-



tion possess some degree of potential military utility, albeit with substantial variation in the technicality, complexity, and risk associated with the roles they may assume.

In this context, universities, concentrations of highly educated youth, acquire heightened strategic importance. Students in engineering, computer science, and related technical fields naturally align with emerging requirements for unmanned-systems operation, cybersecurity, and data processing. Those in the humanities, social sciences, and management disciplines play equally irreplaceable roles in information operations, psychological support, organizational mobilization, and emergency management. Students in medicine, materials science, and engineering can be directly integrated into critical support functions such as medical care, engineering protection, and equipment maintenance. This shift toward a structure in which “everyone is potentially useful, and each contributes in distinctive ways” transforms university-based national defense education from symbolic patriotic or disciplinary training into a forward-positioned component of national mobilization and emerging force-generation systems.

Accordingly, the lessons of the Russia–Ukraine conflict underscore the urgency of reforming military education in higher-education institutions. On the one hand, a more diverse and stratified training system is required to equip students of different academic backgrounds with foundational military competencies aligned with the roles they may assume in future contingencies. On the other hand, it is necessary to move beyond traditional formation drill and fitness centered training models and integrate technical skills, information literacy, psychological resilience, and comprehensive security awareness into the core curriculum. In essence, the “civilianization of warfare” and the “pluralization of talent value” jointly compel university military education to transition from a uniform, symbolic model to a capability-oriented and task-oriented system designed to generate multidimensional reserve forces for modern conflict.

3. The Current Situation and Challenges of Military Education and Training in Chinese Higher Education Institutions

3.1 The current situation of military education and training in Chinese higher education institutions

The military education and training system in Chinese higher education institutions operates under the strategic guidance of the state and is jointly implemented by university leadership, military training units, and relevant government departments. The National Defense Education Law of the People’s Republic of China explicitly stipulates that higher education national defense education serves as a crucial means for the state to enhance citizens’ national defense awareness and improve their capability to act in defense of the nation. It constitutes an essential component of national defense development and the overall improvement of public literacy. The primary objectives of university military education are to enable students to acquire fundamental military skills and theoretical knowledge, strengthen their awareness of national defense and state security, and thereby prepare a reserve pool of personnel for the nation’s armed forces.

In terms of organizational structure, military training in universities is typically led by university-level administrators, including senior officials responsible for the relevant departments, such as the Director of the University Armed Forces Department, the Director of the Security Office, the Director of the Student Affairs Office, as well as the Party Secretaries of individual faculties. These leaders form a Military Training Work Leadership Group, supported by a Military Training Office and a Military Teaching and Research Office as standing bodies responsible for coordinating daily management and instructional activities. This organizational framework ensures centralized and unified oversight of training, administrative management, and ideological-political education, while facilitating collaboration with local military garrisons, provincial military districts, and people’s armed forces departments. Commanding officers and enlisted personnel from the assigned military units are responsible for the direct implementation of training, ideological mobilization, and demonstration guidance, thereby guaranteeing the quality and safety of the programs.

Funding and resource provision for military education in universities are relatively comprehensive. For universities affiliated with central ministries, training funds are allocated by the central government as part of the budget of the supervising department and incorporated into the university's internal budget. For locally administered universities, funding is allocated by local governments within the overall school budget framework and managed at the institutional level. These financial allocations cover training equipment, live ammunition for marksmanship, field facilities, and logistical support. In addition, local people's armed forces departments and stationed military units provide military training equipment and facilities. Universities may also make use of campus grounds or borrow military bases and militia training centers for intensive training, thereby achieving resource sharing and optimizing training conditions.

At present, the military education and training practices in Chinese higher education institutions largely follow the traditional triad of "military theory, military skills, and militarized management." The military theory component primarily encompasses courses on current affairs and policies, national security, national defense education, and military thought. These courses are delivered through classroom lectures, thematic seminars, visits to revolutionary education bases, and the viewing of instructional documentaries. Such modalities aim to convey the fundamental concepts of national defense and state security, foster patriotism, and cultivate students' basic awareness of national defense obligations.

In terms of practical training, military skills instruction centers on formation and drill training, supplemented by military boxing routines, basic operation of light weapons, battlefield first aid, and fire safety exercises. This component emphasizes standardized movements, strict discipline, and foundational combat-related competencies. Training methods typically employ a progressive sequence of "explanation-demonstration-breakdown-practice", with particular attention paid to the acquisition of basic skills and the internalization of disciplinary norms. Some universities incorporate adversarial drill models—such as red blue confrontation in athleticized formats to enhance motivation, build collective morale, and strengthen students' sense of honor.

Meanwhile, militarized management permeates the entire training process. Through uniform dress codes, standardized dormitory arrangements, regimented assembly procedures, and formalized leave protocols, students undergo a short-term immersion in a militarized lifestyle. This experience aims to instill regular routines, discipline, and an awareness of collective cooperation. Such management practices not only reinforce discipline but also cultivate organizational and coordination abilities, enabling students to develop responsibility and a sense of belonging within collective activities. In some institutions, these practices are integrated with campus cultural and athletic events such as performances, military-themed cultural showcases, or "red song" competitions, thereby linking militarized management with everyday campus life and allowing students to experience collective participation alongside exposure to patriotic culture.

3.2 The current challenges faced by military education and training in Chinese higher education institutions

Although China's system of military education and training in higher education institutions has developed a relatively mature framework in terms of organizational structure, institutional support, and pedagogical models, its practical operation still exhibits a series of problems against the backdrop of rapidly evolving forms of modern warfare and a profoundly changing national security environment. The most prominent issue lies in the mismatch between the existing content system and contemporary demands. At present, most universities continue to take traditional skills such as formation drills, basic military physical training, and light-weapons handling as the core of training, while military theory courses are still largely centered on introductory national defense knowledge and classical military thought. This model has its historical rationale, but in the face of the rapid development of informationized and intelligentized warfare, the content of such training has become significantly detached from the new types of combat capabilities that have emerged in recent international conflicts. In particular, in emerging fields such as unmanned systems, information confrontation, and cyber defense, university students' training often remains at the conceptual level,



with little access to hands-on practice or scenario-based exercises. As a result, after completing military training, many students are still unable to truly grasp the nature and underlying logic of new forms of warfare, and they lack a clear understanding of the roles they might effectively play within the national defense system.

Currently, university military training faces the issue of unclear training objectives. Some programs still focus on formations, basic physical fitness, and light weapon handling, supplemented by fundamental national defense theory courses, but there is a lack of systematic clarification regarding the purpose of training: whether it is primarily experiential, aimed at cultivating discipline, or intended to reserve professionally specialized talent for future warfare. This ambiguity manifests in practice as a disconnect between training content, students' professional backgrounds and interests, and national security needs, which may lead students to perceive the training as abstract or formalistic, while universities struggle to strategically leverage talent development. Considering China's national context, with the rapid development of informationized and intelligent military capabilities and the growing emphasis on nationwide defense awareness, universities are expected both to cultivate citizens with basic military literacy and to reserve diverse, applicable talent for modern combat or security operations. In this context, the ambiguity of training objectives not only limits educational effectiveness but also affects students' understanding of their roles within the national defense system, thereby reducing the practical value and strategic significance of military education.

In terms of training organization, Chinese higher education institutions have long adhered to a uniform, closed, centralized training model that emphasizes discipline development and the general mastery of basic military skills. The advantage of this model lies in its ability to significantly enhance students' collective cohesion, obedience, and teamwork capabilities. However, its limitations have become increasingly evident: the training lacks systematic differentiation based on students' professional backgrounds, capability structures, and potential future roles in national defense, resulting in the underutilization of the professional potential of high-quality talent in military education. For instance, students majoring in information technology, computer science, engineering, medicine, or materials science could contribute to critical areas such as cybersecurity, equipment maintenance, or emergency medical response. Yet, the current training system seldom incorporates these professional competencies into practical exercises, preventing students from experiencing the alignment of their skills with national defense needs. While this model strengthens foundational military literacy and collective discipline, it may also diminish students' sense of personal relevance to national defense, fostering a psychological perception of mismatch between their individual abilities and the content of military training, thus limiting the capacity of military education to stimulate professional expertise and cultivate diversified defense talent.

Moreover, due to the brevity and fixed scheduling of military training and the lack of subsequent follow-up mechanisms, current higher education military education struggles to establish a continuous and progressive chain of skill development. Military theory and practical training are often artificially separated in time: theoretical instruction is concentrated in large classrooms and delivered primarily through lectures, making it difficult to deepen understanding in connection with practical exercises; practical training, on the other hand, focuses on short-term, standardized operations, emphasizing procedural correctness and discipline but lacking scenario-based simulations, professional skill extension, and targeted application. This structural discontinuity in timing and content allows students to acquire basic skills and discipline during training but offers limited opportunities to integrate knowledge with their professional expertise, future defense roles, or social practice, making the consolidation of training outcomes difficult. Coupled with the absence of follow-up education and sustained practice mechanisms, organizational discipline, physical fitness, teamwork ability, and defense awareness acquired during training tend to decay over time, leaving military training effects confined to short-term experiences rather than evolving into long-term, sustainable national defense competence.

Building on this, the evaluation system for university military training exhibits a marked tendency toward

formalism, further constraining the deepening of educational outcomes. In most universities, performance assessments still rely heavily on demonstration-based exercises such as military parades or formation displays, with evaluation criteria focusing on observable factors such as movement precision, formation alignment, and command responsiveness. While this approach facilitates management and public display, its overemphasis on “visible results” can lead instructors and students to confine training objectives to superficial performance, neglecting the development of critical competencies in modern defense education such as psychological resilience, emergency response, information literacy, innovation capacity, and teamwork. Formalized assessment encourages training to become uniform and standardized, lacking contextualization, specificity, and interdisciplinary integration, making it difficult for students to connect military theory, practical operations, professional expertise, reserve roles, and future defense needs. Additionally, reliance on demonstration-based evaluations can undermine students’ motivation for active learning and independent exploration, weakening both the practical and educational value of training. Over time, this may not only hinder the cultivation of sustained national defense literacy among students but also impair the development of adaptability and comprehensive capabilities in the context of modern warfare and national security.

Overall, military education in Chinese higher education institutions is at a critical stage of transition from a traditional model to a modernized system. The current framework exhibits clear discrepancies with the new requirements for reserve forces in the context of intelligentized warfare, in terms of philosophy, content, methodology, and evaluation. As warfare trends increasingly emphasize “civilian integration” and “technological parity,” higher education military training faces challenges that extend beyond content updates, encompassing the need for redefining educational objectives, innovating training models, and repositioning universities within the national defense mobilization system. These trends place heightened strategic demands on future reforms.

4. Reform and Optimization Pathways: Constructing a Layered System for Modern University Military Training

4.1 Optimizing the Objectives of Military Education and Training

Against the backdrop of the overall transformation of the university military education system, redefining military training objectives is not merely a matter of updating concepts; it is a systematic project shaped by multiple interacting variables, including resource allocation, university type, student composition, regional security conditions, and national strategic needs. Significant differences among Chinese universities in terms of financial capacity, faculty structure, disciplinary composition, student interests, and local defense mobilization systems make it impossible for a single model of military education to cover all institutions. Therefore, the reconstruction of military education objectives in the new era should follow the principles of “baseline unification, differentiated training, and tiered talent cultivation”, forming an executable and sustainable differentiated objective system under the guidance of the national overall security concept, ultimately enabling students to clarify their roles and responsibilities in national defense, recognize the practical value of their own capabilities within the defense system, and strengthen patriotism and collective discipline.

For comprehensive universities with large student populations, diverse majors, and generally constrained financial resources, optimizing military education hinges on maintaining basic disciplinary training while aligning training content with the evolving trends of modern warfare and finding feasible intersections within the resources available to the school. Lessons from the Russia-Ukraine conflict demonstrate that contemporary warfare exhibits “generalized security” characteristics, including nationwide defense awareness, information security, psychological resilience, and social mobilization. Traditional boundaries between frontlines and rear areas are increasingly blurred, and the safety literacy, emergency response abilities, and information discernment of ordinary citizens have become crucial components of the national security



system. Against this backdrop, university military training can, within existing conditions, prioritize the enhancement of basic security awareness and national defense cognition.

Specifically, while retaining traditional elements such as formation drills, basic military exercises, and light weapon handling, training content can be extended to more practical aspects relevant to modern warfare and security. Emergency evacuation and public incident response can be practiced through campus safety drills, fire evacuations, and simulated emergencies, allowing students to experience crisis response processes in concrete scenarios. Basic battlefield first aid training can be conducted in university clinics or medical rooms, covering injury assessment, simple bandaging, and cardiopulmonary resuscitation, helping students understand the value of their skills in emergency situations. Foundational information security and public opinion awareness training can analyze campus networks and social case studies, teaching students the importance of information protection and individual responsibility in cyberspace. Psychological resilience and team collaboration training can employ stress scenario simulations, emergency decision-making exercises, and crisis psychological adjustment, enabling students to remain calm and work efficiently under uncertainty. Through these practical modules, students not only strengthen discipline and physical fitness but also discover their role in a controlled “simulated combat” environment, understanding how their abilities contribute to national security and social protection, thereby cultivating a tangible sense of responsibility.

Universities with specialized disciplines can further differentiate training objectives according to their professional structure and resources, making military education more aligned with national defense needs. Science, engineering, and information technology universities, equipped with laboratories and computer rooms and with students having strong technical aptitude, can integrate professional courses with defense scenarios. Network technology courses may include modules on basic cybersecurity and attack chain analysis; engineering practice courses can incorporate equipment repair and emergency restoration scenarios; automation and unmanned systems courses can help students understand control logic and system vulnerabilities. Medical universities can focus training objectives on public health security, battlefield first aid, mass casualty management, and bio-risk control, using laboratories and simulation facilities to conduct practical exercises that help students recognize their professional value in emergency contexts. Arts and humanities universities, often with students having lower physical training baselines and limited resources, can emphasize skills in information discernment, psychological resilience, communication ethics, and public crisis response, using case studies, scenario exercises, and group collaboration to enhance students’ capabilities in safeguarding national information security within familiar professional contexts. Vocational colleges, with students having strong practical and applied skills, can target training objectives toward grassroots emergency response and support capabilities, integrating basic equipment maintenance and emergency repair in mechanical, automotive, and engineering programs; material allocation and logistics processes in logistics and management programs; as well as low-cost fire, rescue, and civil defense training, thereby forming a skills-oriented reserve force aligned with mobilization needs and promoting integration of learning and practice.

In addition, elective modules such as “Drone Operation and Countermeasures,” “Basic Cybersecurity” , “Battlefield First Aid” and “Military English” can be introduced across all types of universities, allowing students to link their professional skills with real defense needs while mastering basic military abilities. Theoretical instruction should also be modernized by incorporating the latest cases, such as the Russia-Ukraine conflict and the Nagorno-Karabakh conflict, to analyze the characteristics of contemporary warfare. More importantly, this enables students to understand modern combat logic and clarify their roles and responsibilities within the national security system, thereby cultivating sustainable national defense literacy and a practical sense of responsibility alongside discipline, physical fitness, and fundamental military skills.

From an institutional perspective, international experience indicates that such reforms can be sustainably embedded within higher education systems. Empirical research on the United Kingdom’s University Armed Service Units (UAS) shows that universities can host voluntary and tiered military training programs that

function as long-term reserve force development mechanisms rather than short-term compulsory exercises. By emphasizing leadership development, technical skill acquisition, and familiarization with military norms, UAS integrate military education into everyday university life without undermining academic autonomy. This experience to some extent illustrates the institutional compatibility of modular, capability-oriented military education with modern higher education systems.

At the practical level, recent reforms at Xi'an Jiaotong University demonstrate that the technological and organizational conditions for such transformations already exist within Chinese universities. The university has introduced AI-assisted teaching, digital instructors, and knowledge-graph-based course modules, and has piloted VR-based firearms simulation, UAV reconnaissance training, and tactical confrontation drills. These practices show that information-driven, scenario-oriented, and intelligent training methods can be effectively implemented within university-level military courses, thereby translating institutional reform concepts into concrete teaching practices.

4.2 Optimization of Evaluation Systems and Support Mechanisms

The continuous improvement of military education in universities relies not only on the enhancement of training content but also on the establishment of a scientific evaluation system and a robust support mechanism. Currently, many universities still employ evaluation models centered on performances and drill displays. While these approaches are convenient for management and demonstration purposes, they are limited in their ability to help students genuinely perceive the national security situation and understand their role within the defense system. Without such awareness, students lack a sense of crisis, which in turn makes it difficult to cultivate genuine responsibility for national defense and proactive engagement.

To address this, universities should construct a comprehensive evaluation system based on process performance, competency attainment, and the development of overall literacy. Evaluation should shift focus from mere drill standards and observable outcomes to students' abilities to respond in crisis scenarios, solve problems, collaborate in teams, and apply theoretical knowledge. Methods can include daily performance records, group tasks, practical exercises, theoretical tests, and simulated emergencies or cybersecurity drills. By experiencing potential security threats firsthand, students can clearly understand their role in national defense, develop a genuine sense of crisis, and strengthen their sense of responsibility and patriotic awareness.

In addition, to prevent the benefits of military training from fading after the course concludes, universities should implement follow-up support mechanisms. National defense literacy can be integrated into student clubs, volunteer initiatives, and campus safety education, allowing discipline, emergency response skills, and teamwork to be reinforced in daily campus life. Students with professional potential can engage in elective courses, short-term workshops, or specialized training camps to develop skills aligned with national defense needs. Where feasible, universities can also explore "university-community collaboration," such as participation in local militia or emergency services, combining theoretical knowledge with practical experience and extending the impact of military training beyond campus. Through such dual optimization of evaluation systems and support mechanisms, university military education can not only strengthen discipline and skills but also allow students to directly perceive national security realities, understand their role, and cultivate a sustainable sense of crisis, responsibility, and national defense literacy.

5. Conclusion

The Russia-Ukraine conflict and the characteristics of modern warfare it has revealed provide profound insights for reforming military education and training in Chinese higher education institutions. The conflict demonstrates that contemporary warfare is marked by lowered technological thresholds, civilian integration into operational systems, a heightened emphasis on information and cognitive domains, and the central importance of societal mobilization capabilities. This necessitates a shift in university military education from



traditional models focused on formations, physical training, and basic theory toward a capability-generating, task-oriented system that integrates professional specialization and intelligent technologies.

This study contends that reforms in university military education should focus on several key aspects. First, training objectives must be clarified, following the principles of “baseline unity, differentiated training, and tiered talent development,” allowing different types of universities to set differentiated goals according to their professional structures and resource conditions. This approach ensures the development of foundational military literacy while promoting the alignment of professional skills with national defense needs, enabling students to clearly understand their roles and responsibilities within the defense system and to recognize the practical application of their abilities. Second, training content should be optimized by combining traditional formation drills, physical training, and basic military skills with modern operational capabilities, information literacy, psychological resilience, and emergency response skills. Elective modules such as drone operation and countermeasures, basic cybersecurity, battlefield first aid, and military English should be added, while theoretical instruction should incorporate recent conflict cases to enhance students’ understanding of modern warfare and the national security system. Third, evaluation systems and support mechanisms should be improved. Comprehensive assessments based on process performance, capability achievement, and competency formation can help students clarify their roles through exposure to simulated security threats, cultivating crisis awareness and a sense of national defense responsibility. Follow-up support through student organizations, volunteer activities, elective courses, and school-community collaboration can further extend training effects and ensure continuous skill accumulation.

Overall, reforms in university military education should be guided by national security needs, with the goals of fostering student discipline, capability generation, national defense responsibility, and patriotic spirit. Through the reconstruction of objectives, innovation in training content, and optimization of evaluation and support mechanisms, a diversified and sustainable training system can be established that addresses modern warfare and the comprehensive national defense system. This not only enhances students’ defense literacy and patriotic awareness but also provides institutional support for the development of a professional, information-capable, and psychologically resilient reserve force, achieving an organic integration of educational outcomes with national defense strategic requirements.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Author Contributions

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References

- [1] National People’s Congress. The National Defense Education Law of the People’s Republic of China (2024 Revision), Article 15.
- [2] National People’s Congress. The Military Service Law of the People’s Republic of China (2021 Revision), Article 45.
- [3] Ryan, M. Seven Contemporary Insights on the State of the Ukraine War. Washington, DC: Center for Strategic and International Studies (CSIS), 1st ed., 17 November 2025.

- [4] Wu, Q. The Impact of Cyberspace Confrontation in the Ukraine Crisis. *Russian, East European and Central Asian Studies* 2023, 3, 84–104.
- [5] Ministry of Education & Central Military Commission National Defense Mobilization Department. Teaching Syllabus for Military Courses in Ordinary Higher Education Institutions (2019). Notification Jiao Ti Yi [2019] No. 1. Available online: http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201904/t20190412_377668.html
- [6] Zhou, S.; Chen, K.; Chen, L. On the Reform and Innovation of Military Courses under Informationization. *Journal of Higher Education Research* 2012, 35(03), 92–94.
- [7] Han, Y.; Wang, H.; Feng, H.; Geng, Z. Research on Reform and Innovation of Military Training Courses in Universities under the Information Age. *Beijing University of Chemical Technology, School of Information Science and Technology*, DOI: 10.61369/SDME.2025020026.
- [8] Woodward, R.; Jenkins, K.N.; Williams, A.J. Militarisation, Universities and the University Armed Service Units. *Political Geography* 2017, 60, 203–212. doi:10.1016/j.polgeo.2017.07.012.
- [9] Xi'an Jiaotong University Military Teaching and Research Section. Military Teaching and Research Section Continues to Deepen College Students' National Defense Education and National Security Education (2025 Apr 09). Available online: <https://jsjys.xjtu.edu.cn/info/1016/1795.htm> (accessed on 2 December 2025).
- [10] PLA Daily. Intelligentized Warfare Era and Military Higher Education (2021 May 13). Available online: http://www.81.cn/jfjbmap/content/2021-05/13/content_289223.htm (accessed on 2 December 2025).
- [11] The General Office of the CPC Central Committee; The General Office of the State Council; The General Office of the Central Military Commission. *Opinions on Strengthening and Improving National Defense Education for All in the New Era*. Beijing: People's Publishing House, 2022.

