

# Research on Optimization of Public Physical Education Curriculum System in Universities from the Perspective of Integration of Physical Education and Sports

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**Abstract:** The integration of physical education and academic education serves as the core guiding principle for sports education development in the new era, providing clear direction for reforming public physical education courses in higher education institutions. As a vital component of quality education, these courses bear the important mission of enhancing students' physical fitness, cultivating sports skills, and fostering sports literacy. However, the current public physical education curriculum system in universities faces challenges such as insufficient alignment with sports education objectives, monotonous content, weak practical components, and one-sided evaluation mechanisms, making it difficult to meet the requirements of the integration of physical education and academic education. From the perspective of this integration, this paper analyzes existing issues in the public physical education curriculum system and proposes optimization strategies across four dimensions: curriculum philosophy innovation, content restructuring, structural optimization, and evaluation improvement. The aim is to establish a public physical education curriculum system that aligns with the integration of physical education and academic education, thereby enhancing teaching quality and promoting students' all-round development.

**Keywords:** Integration of physical education and academic education; University public physical education; Curriculum system; Optimization research

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## 1. Introduction

The core essence of integrating physical education with academic education lies in achieving deep synergy between sports and education. This approach embeds sports-based character development throughout the entire talent cultivation process, utilizing sports to cultivate intellect and nurture mental resilience, thereby promoting coordinated growth in students' physical fitness, athletic capabilities, and comprehensive competencies. University public physical education courses serve as crucial platforms for implementing

this integration philosophy, offering foundational, inclusive, and comprehensive programs accessible to all students. However, traditional teaching models have long constrained university physical education systems, leading to issues such as overemphasis on technical skills at the expense of holistic development, prioritizing classroom instruction over extracurricular activities, and focusing on superficial formats rather than practical outcomes, which have hindered the full realization of sports' comprehensive educational value. From the perspective of integrated physical education, exploring optimization pathways for university physical education curricula, breaking down developmental barriers between sports and academic education, and truly integrating sports into higher education talent cultivation systems have become pivotal challenges in advancing university physical education reform.

## **2. Existing issues in university public physical education curriculum systems from the perspective of sports-education integration**

The current physical education curriculum systems in universities under the framework of sports-education integration still face numerous pressing challenges, showing significant gaps compared to the educational objectives of this integration model. Many institutions lack a deep understanding of sports-education integration concepts, with outdated curriculum philosophies that remain focused on traditional skill transmission while neglecting comprehensive student development. Educational philosophies have not been fully integrated into all teaching processes, resulting in underutilized educational value of physical education. Course content remains monotonous, predominantly centered on traditional sports disciplines with slow updates, lacking a tiered design to meet diverse student needs. Additionally, these curricula are disconnected from societal sports demands and lack practical applicability <sup>[1]</sup>. Structural imbalances exist, prioritizing classroom instruction over extracurricular activities with poorly designed systematic physical education programs. The disconnect between in-class and out-of-class activities prevents the formation of integrated sports education systems. Evaluation mechanisms also exhibit biases, relying primarily on summative assessments with single evaluators that overlook learning processes and individual differences. Such approaches fail to comprehensively reflect learning outcomes or effectively guide students' physical literacy development.

## **3. Optimization strategies for university public physical education curriculum system from the perspective of sports-education integration**

### **3.1. Innovating curriculum concepts and integrating the educational connotation of sports-education integration**

Universities should thoroughly study the core connotations and educational requirements of sports-education integration, comprehensively implementing them in all aspects of public physical education curriculum development. Establish the curriculum core concept of "Health First, Quality-Oriented, Holistic Education," closely integrating sports education with students' physical and mental development, professional growth, and lifelong development. Completely break the traditional sports teaching mindset that "emphasizes skills over quality," abandon the teaching model solely focused on sports skill training, and incorporate comprehensive quality cultivation such as willpower, teamwork, rule awareness, resilience, and lifelong sports consciousness into curriculum objectives. Achieve coordinated progress and mutual enhancement

between sports skill transmission and comprehensive quality development. Simultaneously promote deep integration of public physical education courses with students' professional learning and campus culture construction. Design sports teaching content tailored to different majors' physical and mental characteristics and career development needs, ensuring physical education courses not only meet professional development requirements but also truly serve students' lifelong development, fully leveraging sports' comprehensive value of nurturing character and intellectual growth through physical activities.

### **3.2. Restructuring course content and building a tiered, diverse content system**

Centered on the integration of physical education and sports, this initiative systematically reconstructs a public physical education curriculum framework that aligns with students' athletic interests, physical fitness variations, social sports trends, and national fitness requirements. On one hand, it expands course dimensions by retaining traditional strongholds like basketball, football, and track and field while introducing emerging sports such as roller skating, rock climbing, yoga, and frisbee, while deeply incorporating ethnic traditions including martial arts, Tai Chi, and dragon/lion dances to create diverse course options catering to varied student preferences <sup>[2]</sup>. On the other hand, a tiered teaching approach divides courses into three levels: foundational, advanced, and extended. The foundational level targets all students, focusing on physical conditioning and basic skill development; the advanced level caters to students with existing athletic foundations, emphasizing refined skill training and competitive performance enhancement; the extended level emphasizes practical competencies such as sports event organization, refereeing, sports rehabilitation, and fitness guidance. Additionally, the curriculum increases theoretical components incorporating knowledge on sports health, sports culture, and event management, achieving seamless integration of theory and practice to comprehensively elevate students' holistic sports literacy.

### **3.3. Optimizing curriculum structure and building an integrated in-class–out-of-class system**

Universities should break down the barriers between in-class and extracurricular teaching in public physical education courses, abandoning the traditional model that “emphasizes classroom instruction while neglecting extracurricular activities.” Instead, they should establish a four-in-one public physical education curriculum structure integrating “classroom teaching + extracurricular practice + competitive enhancement + club development,” forming a closed-loop sports education system. Classroom teaching serves as the core component, primarily responsible for imparting sports theory knowledge, explaining fundamental movement skills, and conducting standardized training to solidify students' athletic foundations. Extracurricular practice acts as a crucial extension, featuring regular and personalized physical exercise tasks with on-site guidance from professional sports instructors to cultivate students' self-directed exercise habits. Competitive enhancement functions as a key platform, organizing multi-level sports competitions at university, college, and class levels to promote learning through competition and improve athletic competitiveness and teamwork skills <sup>[3]</sup>. Club development serves as effective supplementation, actively supporting various sports clubs by incorporating their daily training and distinctive activities into the curriculum system with corresponding credits. This enables students to refine athletic skills and develop sports organization, management, and coordination capabilities through club activities, achieving seamless integration and collaborative education between in-class and extracurricular physical education.

### **3.4. Enhancing evaluation mechanisms and establishing a comprehensive development assessment system**

Moving beyond traditional single-dimensional evaluation models, we will develop a public physical education curriculum assessment framework that aligns with the integration of physical education and academic education principles, while incorporating both comprehensiveness and developmental perspectives. The evaluation content adopts a diversified approach, covering multiple dimensions including physical fitness, athletic skills, learning processes, sports participation, and sports literacy. This system emphasizes not only students' academic achievements but also their athletic progression and developmental potential. Evaluation methods combine formative and summative assessments: formative evaluations document classroom performance, extracurricular exercise participation, and club activity engagement, while summative assessments focus on physical fitness tests and athletic skill evaluations while accommodating individual differences. The evaluation process involves multi-stakeholder participation through teacher assessments, student self-evaluations, peer reviews, and sports club evaluations to ensure comprehensive and objective outcomes. Additionally, we strengthen feedback mechanisms and application of evaluation results by providing personalized sports learning recommendations based on assessment findings, guiding students to continuously improve their sports literacy.

## **4. Conclusion**

The integration of sports and education provides a novel developmental perspective for reforming public physical education curricula in higher education institutions. Optimizing such curricula is essential to implement the sports-education integration concept and maximize sports' comprehensive educational value. Current challenges—including outdated curricular philosophies, monotonous content, structural imbalances, and one-dimensional evaluations—have constrained the educational efficacy of physical education. By innovating sports-education integration frameworks, restructuring tiered and diversified course content, enhancing integrated in-class and extracurricular learning structures, and refining comprehensive evaluation systems, we can effectively establish public physical education curricula that align with integration requirements, thereby promoting deeper integration between sports and education.

Optimizing the public physical education curriculum system in higher education institutions constitutes a systematic endeavor requiring coordinated efforts from universities, educators, and students. Universities should strengthen strategic planning by integrating physical education reform into their comprehensive development strategies and increasing investment in teaching resources. Educators must update pedagogical approaches, enhance professional competencies, and meticulously design instructional content and activities. Students should actively participate in sports learning and extracurricular physical exercises to cultivate lifelong sports awareness. Only through multi-stakeholder collaboration can the integration of sports and education be effectively implemented, transforming university physical education programs into vital platforms for improving students' physical fitness, developing sports literacy, and promoting holistic development. This approach will lay a solid foundation for nurturing well-rounded talents in the new era.

## **Disclosure statement**

The author declares no conflict of interest.

## References

- [1] Liu X, 2025, Research on Optimization of Public Physical Education Curriculum System in Higher Education Institutions from the Perspective of Integration of Physical Education and Academic Education. *Contemporary Sports Science and Technology*, 15(17): 79–82.
- [2] Wang H, Lin W, Chen J, et al., 2024, Exploration and Practice of Public Physical Education Curriculum Reform in Universities under the Background of Integration of Physical Education and Academic Education. *Contemporary Sports Science and Technology*, 14(10): 62–66.
- [3] Liu Z, Sun Q, Xu B, 2022, Reform Pathways of Physical Education Teaching in Higher Education Institutions Based on the Integration of Physical Education and Academic Education: A Review of Research on Physical Education Teaching and Curriculum System Reform in Higher Education Institutions in the New Era. *Educational Development Research*, 42(07): 86.

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