INTEGRATION OF PHYSIOLOGICAL DISCIPLINES IN THE TRAINING OF PHYSICAL EDUCATION SPECIALISTS: INFORMATIONAL AND PRACTICAL ASPECT

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The specifics of training future specialists in the field of physical culture and sports involve the study by students of disciplines of the medical and biological cycle, the importance of which has been repeatedly highlighted by scientists, teachers of higher education institutions and practicing trainers (Zavallnyuk et al., 2021; Zhydenko & Papernyk, 2023). Knowledge of physiology, an integrated approach, innovative technologies and practical orientation of teaching physiological disciplines form in students the skills of independent work and a systemic vision of the impact of physical exertion on the body. Despite this, the Curriculum (C) for the 2022–2023 academic year for the training of bachelors in the field of knowledge 01 "Education/Pedagogy", specialty 017 "Physical Culture and Sports" of the T.H. Shevchenko National University «Chernihiv Colehium» (term of study - 3 years 10 months, qualification as a trainer-teacher in a sport) provides for the study of only one physiological discipline "Physiology of motor activity". This course integrates four modules: Module 1 "Human Physiology" (HP), Module 2 "Age Physiology" (AP); Module 3 Psychophysiology (Pf) and Module 4 Physiology of Sports (PoS). Compared to the 2021/2022 curriculum, when the course “Human Physiology” was taught separately, the total number of hours decreased by 40 lecture hours and 30 laboratory hours. An analysis of previous curricula, where each discipline was studied separately, indicates an even more significant reduction in hours. A detailed description of the process of combining courses and the calculation of the distribution of 200 points (including the exam) that students receive are given in our previous publication [2]. Since it was impossible to change the number of hours allocated to each module of the course “Physiology of Motor Activity”, we proposed to divide the study of the discipline into two semesters and introduce an additional form of control — a test. The corresponding distribution of hours is presented in Tab.Distribution of hours for the discipline "Physiology of Motor Activity"

	2nd Year, 3rd Term (HP+AP)		2nd Year, 4th Term (Pf+PoS)	
Total number	Intramural	Extramural	Intramural	Extramural
Number of ECTS credits 6 Number of hours: 180	3	3	3	3
Lectures 46	90	90	90	90
Laboratory 62	22 (HP16+AP6)	6 (HP4+AP2)	24 (Pf6+PoS18)	8 (Pf2+PoS6)
Individual tasks	34 (HP24+AP10)	8 (HP6+AP2)	28 (Pf10+PoS18)	10 (Pf2+PoS8)
Independent work of the student	2	9	2	9
	32 (36%)	67	36 (40%)	63

Also we adjusted the qualitative content of the methodological materials on the Moodle platform. Performing laboratory work allowed us to diagnose the physiological and psychophysiological qualities of students in the first module (HP). In the second module (AP), students received a theoretical justification for the development of physiological systems in ontogenesis and their relationship (for example, between the age when a child begins to walk and talk, etc.).

The distance learning format allowed for an individual approach to each student, contributing to the formation of a personalized educational trajectory for the development of psychophysiological qualities. This, in turn, improved the understanding of the lecture material, increased the quality of answers to test questions and the effectiveness of solving problem-integrated tasks. Each module motivated students to develop those psychophysiological and physical qualities and fully realize themselves in studies and sports. In the 2024/2025 academic year, the quality of knowledge increased by 7.5% (from 16.5% to 24.0%), success rate - by 5.5% (from 64.5% to 70.0%). In the future, it is planned to introduce augmented and virtual reality technologies in teaching physiological courses.

References:

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2. Zhydenko, A. O., & Papernyk, V. V. (2023). Profesiina pidhotovka treneriv u haluzi fizychnoi kultury ta sportu. *Naukovyi chasopys Natsionalnoho pedahohichnoho universytetu imeni M. P. Drahomanova. Seriia 15. Naukovo-pedahohichni problemy fizychnoi kultury (fizychna kultura i sport)*, *3K*(162), 142–147. https://doi.org/10.31392/NPU-nc.series15.2023.3K(162).28