

IMPACT OF THE MODULAR CREDIT SYSTEM ON ACADEMIC PERFORMANCE AND ENGAGEMENT IN MEDICAL STUDENTS**Zafar Zayirovich Aminov**

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Relevance. The modernization of higher medical education in Uzbekistan has become essential in the context of global integration, which demands academic mobility and alignment with international standards. The implementation of the Modular Credit System (MCS) is considered a key step toward building a flexible, outcome-oriented learning model. This is particularly important in the medical field, where clinical competence requires an early, systematic, and adaptive approach to education.

Objective of the Study. To assess the impact of the MCS on academic performance, educational discipline, and digital engagement among students at Samarkand State Medical University.

Materials and Methods. A retrospective comparative analysis was conducted on two cohorts of undergraduate students (n=160 each) from the 2018/2019 (pre-MCS) and 2022/2023 (post-MCS) academic years. Key indicators included GPA, the proportion of students with GPA ≥ 4.0 , academic debt, class attendance, use of digital platforms, and the number of exam attempts. Statistical analysis involved t-tests, chi-square tests, and Mann–Whitney U tests, with significance set at $p < 0.05$.

Results. Following MCS implementation, the average GPA increased from 3,58 to 3,89 ($p < 0,001$), while the share of students with GPA $\geq 4,0$ rose from 34,4% to 54,4% ($p < 0,001$), and academic debts decreased from 16,3% to 8,8% ($p = 0,036$). Class attendance improved from 77,8% to 84,6%, and digital platform usage increased from 48,1% to 85,0% ($p < 0,001$). The proportion of students passing modules on the first attempt rose from 61,3% to 78,8%, with a concurrent decline in repeated attempts. All changes were statistically significant and accompanied by stable confidence intervals.

Conclusion. The MCS proved effective in the context of medical education, contributing to sustained improvements in students' academic performance and behavioral indicators.