



## MODERN CONCEPT OF CLASSICAL AND APPLIED FUNDAMENTAL MATHEMATICAL PREPARATION OF TECHNICAL UNIVERSITY STUDENTS IN THE CONTEXT OF EUROPEAN INTEGRATION

**Prof. Tetiana Yarkho**

Kharkiv National Automobile and Highway University,  
Ukraine

[tatyana.yarkho@gmail.com](mailto:tatyana.yarkho@gmail.com)

<https://fts.khadi.kharkov.ua/en/departments/the-department-of-higher-mathematics/teaching-staff-of-the-department/jarkho/>

The foundation of the methodological competence-based paradigm of modern higher technical education is the fundamentalization of students' professional and technical preparation at the university. This general process includes the fundamentalization of basic mathematical preparation, which is an integrated process of generalizing mathematical knowledge and involves acquiring the ability to apply it creatively in professional practice.

The experience of Kharkiv National Automobile and Highway University is presented in implementing the fundamentalization of multi-level basic fundamental mathematical preparation of students across three educational cycles, through classical and applied compulsory and elective mathematical disciplines, based on the concept of lifelong learning and oriented toward the European experience of introducing individual educational trajectories for students.