

AGREED

Chief Engineer of the project,
Director of LLP «Kazakh
Promtransproject»
Musaev M.T.
«17» 03 2025 y.

**APPROVING**

Director of the Institute
«Transport and Construction»
Abdreshov S.A.
«19» 03 2025 y.

CATALOG OF DISCIPLINES OF THE UNIVERSITY COMPONENT**EDUCATIONAL PROGRAM 8D07170 Transport facilities****Education level: PhD****Duration: 3 year****Admission year: 2025 y.**

№	Cycle	Compo nent	Name of the discipline	Total labor intensity		Term	Learni ng outcom es	Brief description of the discipline	Prerequisites	Post- requirement s
				in academi c hours	in academi c loans					
1	2	3	4	5	6	7	8	9	10	11
1	BD	UC	Academic writing	120	4	1	LO1	The objectives of the discipline are: mastering the structural features and requirements for the design of academic and scientific texts. Improve the skills of abstracting and concise presentation of information, writing a bibliographic review. The ability to report scientific achievements to the general public and write scientific articles for publication in international publications.	Disciplines of the cycle of basic master's degree courses	Research practice, Research work of the doctor, Final certification
2	BD	UC	Research methods	180	6	1	LO2 LO3 LO4	Formation of a systematic understanding of theoretical and applied scientific research methods, including planning, organization and implementation of experimental research projects. Modern methods of data analysis and interpretation, information processing technologies, digital tools and approaches based on artificial intelligence, competencies for the preparation of scientific publications, presentation and protection of research results are being mastered. Special attention is paid to the principles of sustainable development, ethical	Disciplines of the cycle of basic master's degree courses	Research practice, Research work of the doctor, Final certification

								aspects of scientific activity and risk management in the design and implementation of research.		
3	PD	UC	Information technologies in the construction and operation of transport facilities	150	5	1	LO2 LO3 LO4	The purpose of the discipline is to develop doctoral students' system knowledge and professional skills in the application of modern information technologies in the processes of design, construction, monitoring and operation of transport facilities, including digital modeling, control automation, engineering data processing and the introduction of intelligent systems in infrastructure projects.	Disciplines of the cycle of basic master's degree courses	Research practice, Research work of the doctor, Final certification

Head of the department «Architectural and construction Engineering»

Kulmanov K.S.