

AGREED
"GEO TRACK" LLP Director,
Candidate of Technical Sciences
Nussupov D. K.
«20» 03 2025г.



I APPROVE
Directors of the Institute "TI"
Abdreshov Sh.A.
«19» 03 2025 г.

CATALOGUE OF DISCIPLINES OF THE UNIVERSITY COMPONENT

EDUCATIONAL PROGRAM 7M07169 – Transport Infrastructure Engineering (specialized)

Education level: Master's degree

Duration of study: 1-year

Year of admission: 2025 years

Cycle	Component	Name of the discipline	General labor intensity		Semester	Learning outcomes	Brief description of the discipline	Prerequisites	Postrequisite
			academic hours	academic credits					
1	2	3	4	5	6	7	8	9	10
BD	VK	Management	60	2	1	EO1	Develops knowledge about the organization as an object of management, examines situational and process approaches to management, engineering and reengineering of business processes, explores theories and practices of management, examines the role functions of the manager and subordinates, studies methods of planning management strategy, motivating performers to high-performance work, organizing effective control, etc., provides practical skills in developing a management style and tactics for making management decisions.	Basic school knowledge of mathematics	Basic and core disciplines of doctoral studies
BD	VK	Foreign language (professional)	60	2	1	EO2	Mastery of professional English at an advanced level (for non-linguistic fields), grammatical characteristics of scientific style in its oral and written forms, professional oral communication in monologue and dialogic forms according to the educational program, as well as the ability to present research results in the form of reports, essays, publications, and public discussions; interpret and present the results of scientific research in a foreign language.	Basic school knowledge of a foreign language	Basic and core disciplines of doctoral studies
BD	VK	Psychology of Management	60	2	1	EO1	The course is aimed at studying the theoretical and methodological foundations of management psychology, the main socio-psychological problems of management and ways of solving them, familiarization with methods of studying important socio-psychological characteristics of the individual and the team, professional, interpersonal and intrapersonal problems by means of management psychology.	Basic knowledge of a bachelor's degree	

									master's degree
PD	VK	Application of finite element method in tasks of transport infrastructure	150	5	1	EO5	Studies the theoretical foundations of constructing computational finite element models of transport infrastructure using the fundamental principles of the theory of elasticity, plasticity, mechanics of deformable solids and numerical analysis, the basic techniques for constructing matrices of elements, algorithms for solving stationary, dynamic and physically nonlinear problems in order to develop competencies in the field of applying finite element analysis for modeling	Basic and specialized disciplines of the bachelor's degree	Basic and core disciplines of doctoral studies
PD	VK	Methodology of operational development	150	5	1	EO2,5	This course focuses on the principles, methods, and technologies for maintaining, optimizing, and upgrading radio, electronic, and telecommunications systems during their operational phase. It addresses issues of reliability, sustainability, and efficiency of operating communication systems, as well as maintenance, diagnostics, and equipment lifecycle management. Particular attention is paid to performance evaluation methods, the implementation of automated monitoring systems, and modern approaches to technical support for telecommunications infrastructure.	Basic and specialized disciplines of the bachelor's degree	Basic and core disciplines of doctoral studies
PD	VK	Industrial practice	210	7	3	EO4,6	Consolidation of theoretical knowledge acquired during the training process; acquisition of skills in the practical use of professional knowledge acquired during the period of theoretical training; training in the skills of solving practical and managerial problems; familiarization with the specifics of the professional activity of a bachelor in a specific industry; formation of a professional position specialist, style of behavior, mastering professional ethics.	Diagnostic and transport facilities infrastructure tours	Experimental non-researcher's work master's degree
PD	VK	Experimental-researcher-Master's student's thesis	540	18	1,2,3	EO4,5,6,	Formed professional and managerial competencies, readiness to independently perform professional tasks and compliance of his/her training with the requirements of the Master's degree program	The arrangement of transport facilities infrastructure tours	Experimental non-researcher's work master's degree

PD	VK	FINAL CERTIFICATION	241	8	3	E O4,5 ,6	The objectives of the thesis are to assess the bachelor's degree in mastering the curriculum, to assess their readiness for independent work within the curriculum, and to consolidate and deepen their practical skills. A comprehensive examination is also included.	Technical control state of infrastructure transport facilities	Experimental no-researcher skaya workmaster - welt
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Head of the department "transport engineering" _____ Bykhozhaeva G. S.