

Profile of educational and scientific programme on a speciality
"Transport technology (by type)"

1 – Загальна інформація	
Full name of higher education institution	O.M. Beketov Kharkiv National University of Urban Economy
Degree of higher education and title of qualification in original language	The third (educational and scientific) Doctor of Philosophy in Transport Technology
The official name of the educational programme	Transport technology (by type)
Diploma type and volume of educational programme	Ph.D. Degree, single, 45 ECTS, term of studies 4 years
Availability of accreditation	-
Cycle/Level	The third (educational and scientific) level NRC of Ukraine – level 8 QF-EHEA – Third Cycle EQF-LLL – Level 8
Prerequisites	Existence of the second (Master) Degree or educational qualifying level of specialist
Language(s) of teaching	Ukrainian
Validity of the educational programme	5 years old
Internet address for permanent placement of the educational programme	https://k-tsl.com/
2 – The aim of the educational programme	
	The purpose of the educational programme is to conduct original scientific research aimed to gain new knowledge in the field of transport technology with the writing and defense of scientific achievements in the form of Ph.D. thesis.
3 - Characteristics of the educational programme	
Domain Area	<p>The branch engaged in research of the laws defining conditions of the transport service rational organization and transport processes and covers problems of formation and maintenance of effective work of constituent elements of a transport complex, development of its material and technical base - a network of roads, transport, warehousing and reloading means. Main tasks include development of scientific bases and methods to ensure the efficient operation of transport systems, the rational organization of passenger and freight traffic.</p> <p>The theoretical content of the subject area is formed by the following directions:</p> <ol style="list-style-type: none"> 1. Improvement of means, technology and conditions of cargoes, passengers and luggage transportation, methods of operational management of congestion processes at the nodes of the transport network.

	<p>2. Research and elaboration of a set of technical means for the development and effective use of transport systems elements, determining the patterns of mutual influence of transport systems and the external environment, justification of requirements for transport facilities and their equipment.</p> <p>3. Research on patterns of demand for passenger and goods transport services.</p> <p>4. Justification, development and improvement methods, technologies and technical means of transport for the organization of international, mixed, combined, intermodal cargo and passenger transportation.</p> <p>5. Development of decision-making models by the subjects of transport markets for the delivery of various goods in regional, interregional and international traffic.</p> <p>6. Identification and substantiation the factors of transport systems efficiency, development the theory and methods of organization and managing development of transport systems.</p> <p>7. Development the theory and scientific foundations of transport processes and systems organization.</p> <p>8. Solving complex problems of logistics management related to transport, warehousing, cargo handling, placing orders and stocks.</p> <p>9. Formation of the national transport network, its interaction with the transport systems of other countries.</p> <p>10. Development the scientific bases for the formation, organization and functioning of the national network of international transport borders and its integration into the world and European transport system.</p> <p>11. Regularities of cargo flows formation, organization of their management, development methods of transport process organization which are based on the principles of logistics, formation of transport and forwarding service appropriate systems.</p> <p>12. Regularities of passenger flows formation, construction of transport passenger systems of cities, rural districts and regions.</p> <p>13. Problems of interaction of different types of transport in the transportation of goods and passengers.</p> <p>14. Substantiation of technological processes of passenger and freight transportation, their organization and management in integrated systems and systems of different modes of transport: aviation, automobile, water, railway.</p> <p>15. Development of rational systems and justification of the means of complex mechanization and automation for load and unload works in a point of coincidence different types of transport.</p> <p>16. Regularities of transport flows formation and development of the traffic organization systems and technology of their management.</p> <p>17. Justification of the requirements for the application of methods and means of traffic control automatization, the principles of synergistic integration of the interaction of different vehicles and systems.</p> <p>18. Problems of transport safety. Regularities of human factor influence on transport processes.</p>
Orientation of the educational programme	Educational and scientific
The main focus of the educational programme and specialization	<p>General education in the field of "Transport" in the specialty "275 Transport technology (by type)", educational and scientific programme and education programme "Transport technology (by type)".</p> <p>Key words: transport, cargo, passenger, modeling, transport flow, human factor, transport system, efficiency, logistics management.</p>

Features of the programme	The educational and scientific programme is designed to provide comprehensive scientific knowledge, necessary practical skills and research activities in the field of "Transport".
4 – The suitability of graduates to employment and further education	
Suitability for Employment	A graduate of the educational programme has the right to teach specialized disciplines, to train applicants for higher education of the first or third levels and to continue scientific activities within the framework of educational and related qualifications, provided the defense of scientific achievements in the form of Ph.D. thesis
Further education	Access to doctoral studies
5 – Teaching and evaluation	
Approaches to the teaching and studying	Student-centered learning, self-study, learning through scientific activities
Evaluation	Combination of lectures, practical classes, independent and research work on the basis of normative literature, textbooks, lecture notes and experimental research, consultations with teachers, preparation of dissertations.
6 – Software competencies	
Integral competence	Ability to solve complex problems in the field of professional and / or research and innovation in the field of transport systems and technologies, which involves a deep rethinking of existing and the creation of new holistic knowledge and / or professional practice.
General Competencies (GC)	<p>GC 1. Ability to define the basic concepts at the field of expertise, to critically comprehend the problems of the field of expertise and problems at the boundaries of subject areas, to identify and characterize the theoretical / empirical and fundamental / applied dimensions of the field of expertise.</p> <p>GC 2. Ability to adhere to ethical principles both in terms of professional honesty of the scientist and in terms of understanding the possible impact of scientific achievements on the socio-economic and spiritual spheres of society.</p> <p>GC 3. Ability to plan and solve problems of own professional development.</p> <p>GC 4. Ability to conduct own original research, which contains scientific novelty, have important theoretical and practical significance.</p> <p>GC 5. Ability to work with literary catalogs, databases in the specialty and scientometric databases.</p> <p>GC 6. Ability to participate in interdisciplinary projects and the ability to use the results of research in other fields of science to achieve the goals of their own research.</p> <p>GC 7. Ability to use effectively modern methodology of scientific knowledge and the latest methods of scientific research.</p> <p>GC 8. Public presentation and defense of scientific research in the Ukrainian language.</p> <p>GC 9. Ability to work in a large research group, to respect national and cultural traditions, the ways in which other members of the group work, understanding the responsibility for the results of the work, as well as taking into account budgetary costs and personal commitments.</p> <p>GC 10. Ability to use modern information technologies in scientific activities.</p> <p>GC 11. Ability to apply modern approaches to the organization and conduct of various types of classroom and extracurricular educational activities of students.</p> <p>GC 12. Ability to register intellectual property rights.</p>

	<p>GC 13. Ability to fully understand foreign scientific texts in the relevant specialty.</p> <p>GC 14. Ability to write in a foreign language own scientific works of different content and volume (scientific article, abstract, conference abstracts, scientific report, request for a scientific grant, cooperation agreement, report on scientific work, dissertation, etc.);</p> <p>GC 15. Ability to communicate effectively with special and general audiences (in particular, using foreign languages), as well as to present complex information in a convenient and understandable way orally and in writing.</p>
Professional competences of the specialty (PC)	<p>PC 1. Ability to pose and solve research problems in the field of transport technologies.</p> <p>PC 2. Ability to evaluate and ensure the quality of research.</p> <p>PC 3. Ability to apply appropriate mathematical methods, models for solving problems in the field of transport systems and technologies.</p> <p>PC 4. Ability to study transport technologies based on modeling of transport processes.</p> <p>PC 5. Ability to study and evaluate the parameters of traffic flows.</p> <p>PC 6. Ability to optimize the operation of the transport system taking into account traffic flows.</p>
7 – Programme learning outcomes	
Programme learning outcomes	<p>PLO 1. To know the history of development and the current state of scientific knowledge in the field.</p> <p>PLO 2. To use theoretical knowledge of public administration and administration in practice.</p> <p>PLO 3. To analyze, identify, solve complex problems in the industry.</p> <p>PLO 4. To plan and timely solve tasks related to professional development, in particular in the field.</p> <p>PLO 5. To carry out scientific research and analysis of information sources, as well as identify promising areas of research.</p> <p>PLO 6. To use modern information technologies in conducting research.</p> <p>PLO 7. To organize effective communication with special and general audiences (in particular, using foreign languages), as well as present complex information in a convenient and understandable way orally and in writing.</p> <p>PLO 8. To study domestic and foreign scientific texts.</p> <p>PLO 9. To organize and conduct research.</p> <p>PLO 10. To apply the method of preparation of dissertation research.</p> <p>PLO 11. To apply innovative approaches in solving problems of organizing research in the field.</p> <p>PLO 12. To organize expert research and select the necessary information technology.</p> <p>PLO 13. To apply the legal framework for the regulation of innovation and technology transfer.</p> <p>PLO 14. To prepare design solutions.</p> <p>PLO 15. To carry out teaching activities in the main educational programmes in the field.</p> <p>PLO 16. To apply innovative approaches to solving problems of organizing research in the field of transport technologies.</p> <p>PLO 17. To perform systematic analysis in the field of transport technologies, set and investigate problems, assess the quality and adequacy of the results.</p> <p>PLO 18. To use and develop modern methods of modeling transport systems.</p> <p>PLO 19. To determine the optimal modes of operation of transport facilities</p>

	based on the results of assessment of their parameters.
8 – Resource support of the programme implementation	
Personnel support	The membership of the programme is characterized by research and teaching staff who have degrees and academic titles. Staffing of the educational process is based on the selection and training of highly qualified specialists in the field of transport technologies. The qualification of teaching staff will be improved by conducting internships in relevant organizations and educational events in Ukraine and Europe. Leading specialists of the region, who have extensive experience in transport technologies, are involved in the teaching of special professional disciplines.
Logistical support	Lectures are held in classrooms with multimedia equipment. Practical classes are held in specialized computer classes with the use of information and communication equipment, information systems and software products used in transport technologies. The laboratory of the SmaLog training center "Smart transport and logistics for cities" is equipped with modern equipment, devices, measuring and diagnostic equipment. Many of these products have already been introduced or are being actively introduced into the educational process: MS Project, Teamwork, Teamlab, Open Workbench., GanttProject, dotProject., EverNote, Nirvana, Wunderlist, Toggl, Office 365. Document. Online, AllFusion Process Modeler 7, MS Visio. LibTe office Impress, Mind42, ViSta, MacANOVA, Matrixer. Software for modeling Anylogic i Vissum, Vissim, Copert.
Information and educational and methodological support	All educational components of the educational programme "Transport technologies (by types)" are provided with the following educational and methodical materials: textbooks; handbooks; lecture notes; methodical instructions and recommendations; individual tasks; collections of situational tasks (cases); examples of solving typical problems or performing typical tasks; computer presentations; illustrative materials; resource catalogs, etc.
9 – Academic mobility	
National credit mobility	In accordance with the Regulations on academic mobility of students, postgraduates, doctoral students, scientific-pedagogical and scientific workers of O.M. Beketov Kharkiv National University of Urban Economy
International Credit Mobility	Erazmus+ Programme The development of potency in the higher education industry (E+svnE) Partnership agreement Project Number - 585832-EPP-1- 2017- - IT-EPPKA2- CBHE-JP Smart transport and logistics for meat Smalog
Education of foreign applicants of higher education	In accordance with the Regulations on the preparation of applicants for higher education degree of Doctor of Philosophy and Doctor of Sciences at O.M. Beketov Kharkiv National University of Urban Economy and the Rules of admission to postgraduate and doctoral studies of O.M. Beketov Kharkiv National University of Urban Economy, which are an appendix to the Rules of admission to O.M. Beketov Kharkiv National University of Urban Economy.