



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
NATIONAL TECHNICAL UNIVERSITY "KHARKIV POLYTECHNIC INSTITUTE"

# CURRICULUM

educational and professional program  
Automobiles and Automobile Industry  
in the field of  
knowledge

APPROVED BY

Rector of NTU "KhPI"

for the training second (master`s) level  
(higher education level)

27 Transport  
(Knowledge field code and title)

Yevgen SOKOL

by specialty

- 274 Automobile transport

Qualification master of automobile transport

Period of study 1 year 4 months  
on the basis of bachelor's degree

"\_\_" \_\_\_\_\_ 2022

Form of Training full-time

## I. Education process schedule

Course	September				October				November				December				January				February				March				April				May				June				July				August							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
1																	T	V	E	E	E	V																	T	E	E	E	V	V	V	V	V	V	V	V	V	V
2	P	P	P	P	P	P	P	P	D	D	Q	Q	Q	Q	D	D																																				

Legend:  Theoretical study E Exam Session P Practice Q Preparation of qualification work T Test week V Vacation D Defending of qualification work

## II. Consolidated budget time (in weeks)

Course	Theoretical study	Exam Session	Practice	Attestation	Preparation of qualification work	Vacation	Total
1	32	8				12	52
2			8	4	4		16
<b>Total</b>	<b>32</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>68</b>

## III. Practice

Type of practice	Duration (in weeks)	Semester
Pre-graduation	8	3

## IV. Attestation

Measures	Number of ECTS credits	Semester
Preparation of qualifying work	7,0	3
Defence of qualification work	4,0	3
Qualifying exam	4,0	3

V. EDUCATION PROCESS PLAN

Number in order	Name of academic discipline	Semester distribution			Number of ECTS credits	Number of hours						Distribution of classroom hours per a week and ECTS credits per a semester								Department
		Exams	Tests	Individual tasks		Total amount	Classroom			Independent work	1 course				2 course					
							Total	including			Semesters		Semesters							
		Lectures	Laboratory works	Practical studies		1		2	3	4										
		Number of weeks in the semester								20		20		20		16				
		Classroom m hours	ECTS credits	Classroom m hours		ECTS credits	Classroom m hours	ECTS credits	Classroom m hours	ECTS credits										
<b>1</b>	<b>Obligatory educational components</b>				<b>66,0</b>	<b>1980,0</b>	<b>464,0</b>	<b>224,0</b>	<b>32,0</b>	<b>208,0</b>	<b>1516,0</b>	<b>13,0</b>	<b>16,0</b>	<b>16,0</b>	<b>20,0</b>	<b>30,0</b>				
<b>1.1</b>	<b>General training</b>				<b>9,0</b>	<b>270,0</b>	<b>96,0</b>	<b>32,0</b>		<b>64,0</b>	<b>174,0</b>	<b>2,0</b>	<b>3,0</b>	<b>4,0</b>	<b>6,0</b>					
GT 1	Intellectual Property		2	R	3,0	90,0	32,0	16,0		16,0	58,0			2,0	3,0					325
GT 2	Second Foreign Language		2	R	3,0	90,0	32,0			32,0	58,0			2,0	3,0					275
GT 3	Innovative enterprise and management of startup projects		1		3,0	90,0	32,0	16,0		16,0	58,0	2,0	3,0							202
<b>1.2</b>	<b>Professional training</b>				<b>57,0</b>	<b>1710,0</b>	<b>368,0</b>	<b>192,0</b>	<b>32,0</b>	<b>144,0</b>	<b>1342,0</b>	<b>11,0</b>	<b>13,0</b>	<b>12,0</b>	<b>14,0</b>	<b>30,0</b>				
PT1	Automation and Motor Car Processes Simulation		1	CG	3,0	90,0	48,0	32,0	16,0		42,0	3,0	3,0							152
PT2	Operational Processes Analyses of Motor Car Systems	1		C	5,0	150,0	64,0	32,0		32,0	86,0	4,0	5,0							152
PT3	Motor Cars Technical Operation, Autotecnical Assessment and Resource Saving	1		C	5,0	150,0	64,0	32,0	16,0	16,0	86,0	4,0	5,0							152
PT4	Methods of Scientific Investigations and Patenting		2	CG	5,0	150,0	64,0	32,0		32,0	86,0			4,0	5,0					152
PT5	Quality Control Fundamentals		2	C	5,0	150,0	64,0	32,0		32,0	86,0			4,0	5,0					152
PT6	Ergonomics Properties and Vehicles Ecology	2			4,0	120,0	64,0	32,0		32,0	56,0			4,0	4,0					152
PT7	Pre-graduation practice		3		15,0	450,0					450,0						15,0			152
PT8	Attestation		3		15,0	450,0					450,0						15,0			152
<b>2</b>	<b>Optional educational components</b>				<b>24,0</b>	<b>720,0</b>	<b>368,0</b>	<b>224,0</b>	<b>16,0</b>	<b>128,0</b>	<b>352,0</b>	<b>13,0</b>	<b>14,0</b>	<b>10,0</b>	<b>10,0</b>					
<b>2.1</b>	<b>Profile training</b>				<b>12,0</b>	<b>360,0</b>	<b>192,0</b>	<b>128,0</b>	<b>16,0</b>	<b>48,0</b>	<b>168,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>					
<b>2.1.1</b>	<b>Profiled discipline package 01 "Automobile Industry "</b>				<b>12,0</b>	<b>360,0</b>	<b>192,0</b>	<b>128,0</b>	<b>16,0</b>	<b>48,0</b>	<b>168,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>					
OP1.1	Technological Planning of Automobile Operating Enterprises	2		CG	3,0	90,0	48,0	32,0		16,0	42,0			3,0	3,0					152
OP1.2	Methods of Mathematical Forecasting of Changes in Technical Condition of Cars	2		CG	3,0	90,0	48,0	32,0		16,0	42,0			3,0	3,0					152
OP1.3	Diagnostics of Car Electronic Systems	1		C	3,0	90,0	48,0	32,0	16,0		42,0	3,0	3,0							152
OP1.4	International Road Freight Haulage	1		C	3,0	90,0	48,0	32,0		16,0	42,0	3,0	3,0							152
<b>2.1.2</b>	<b>Profiled discipline package 02 "Road Transport"</b>				<b>12,0</b>	<b>360,0</b>	<b>192,0</b>	<b>112,0</b>	<b>48,0</b>	<b>32,0</b>	<b>168,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>	<b>6,0</b>					
OP2.1	Organization of Road Transport and Road Safety	1		CG	3,0	90,0	48,0	32,0		16,0	42,0	3,0	3,0							152
OP2.2	Logistics on the Road Transport	2		CP	3,0	90,0	48,0	16,0	32,0		42,0			3,0	3,0					152
OP2.3	Management of Production Activity of Motor Transport Enterprises	2		C	3,0	90,0	48,0	32,0		16,0	42,0			3,0	3,0					152
OP2.4	Modern Methods of Vehicle Health Check	1		C	3,0	90,0	48,0	32,0	16,0		42,0	3,0	3,0							152
<b>2.2</b>	<b>Optional student disciplines of the profile preparation according to the list (the list is attached)</b>				<b>12,0</b>	<b>360,0</b>	<b>176,0</b>	<b>96,0</b>		<b>80,0</b>	<b>184,0</b>	<b>7,0</b>	<b>8,0</b>	<b>4,0</b>	<b>4,0</b>					
<b>Total for education period</b>					<b>90,0</b>	<b>2700,0</b>	<b>832,0</b>	<b>448,0</b>	<b>48,0</b>	<b>336,0</b>	<b>1868,0</b>	<b>26,0</b>	<b>30,0</b>	<b>26,0</b>	<b>30,0</b>	<b>30,0</b>				
<b>Hours per week</b>												26,0		26,0						

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	29
Number of exams																				
Number of tests																				
Number of course projects (works)																				
Numbers of disciplines per semester												6,0	7,0							

Individual tasks	
C	Calculated task
CG	Calculated and graphic task
R	Report
CP	Course project
CW	Course work
SRW	Scientific research work

Approved by the Academic Council of NTU "KhPI"

PROTOCOL № \_\_\_\_\_ from \_\_\_\_\_ 202\_\_

Vice-rector of Scientific-and-Pedagogical Work

\_\_\_\_\_  
Signature Full name

Head of the educational program .....

\_\_\_\_\_  
Signature Full name

Director of the Institute /Dean of the Faculty

name of the Institute

\_\_\_\_\_  
Signature Full name

Head of the Department

name of department

\_\_\_\_\_  
Signature Full name

## List of optional student disciplines of the profile training

Number in order	Name of academic discipline	Semester distribution			Number of ECTS credits	Number of hours						Distribution of classroom hours per a week and ECTS credits per a semester								Department
		Exams	Tests	Individual tasks		Total amount	Classroom				Independent work	1 course				2 course				
							Total	including				Semesters		Semesters						
		Lectures	Laboratory works	Practical studies				1	2	3		4								
							Number of weeks in the semester													
		20	20	20		16														
Classroom hours	ECTS credits	Classroom hours	ECTS credits	Classroom hours	ECTS credits	Classroom hours	ECTS credits													
13	14	15	16	17	18	19	20													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	29
<b>2.2</b>	<b>Optional student disciplines of the profile training</b>																			
OPT1	Management in Car Service		1	R	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0							152
OPT2	Modern Directions of Road Transport Infrastructure Development		2	C	4,0	120,0	64,0	32,0		32,0	56,0			4,0	4,0					152
OPT3	Modern Technologies of Car Production and	1		C	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0							152
OPT4	Reliability in Vehicle Engineering	1		CG	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0							152
OPT5	Technical Service of Special Rolling Stock		2	C	4,0	120,0	64,0	32,0		32,0	56,0			4,0	4,0					152
OPT6	Warehousing and Transport Logistics	1		C	4,0	120,0	64,0	32,0		32,0	56,0	4,0	4,0							152
OPT7	Energy Saving on Motor Transport	1		C	4,0	120,0	48,0	32,0		16,0	72,0	3,0	4,0							152
OPT8	Methods of Mathematical Modeling of Transportation Processes		2	C	4,0	120,0	64,0	32,0		32,0	56,0			4,0	4,0					152
OPT9	Transport Technologies in Agricultural Production	1		C	4,0	120,0	64,0	32,0		32,0	56,0	4,0	4,0							152