Форма Моп1-21_(1,4)



2

total

32

8

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

CURRICULUM

educational and professional program Modern programming, mobile devices and computer games

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•						20)23 p					F	orn	n of st	udy		full-	time	•																	isis o	_	bach	nelo	r's de	gree	•		
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Sour	1	2	3 4	4 5	5	6 7	8	9	10	11	12	13 1	4 1	15 16	17 1	8 19	9 20	21	22	23	24	25 2	26 2	27 2	8 29	30	31	32 33	34	35	36	37	38 3	39 4	0 41	1 42	43	44	45	46 4	17 48	8 49	50	51 5
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Prediploma

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Defending of

Proficiency examination

qualification work

4,0

CONTENT of CURRICULUM

for the master`s training:

by specialty 123 Computer Engineering

			Total amo	unt		<u> </u>
Number in order	Discipline title	ECTS creits	Hauma	Sen	nester	Department
order		EC15 creits	Hours	Exam	Test	code
1	2	3	4	5	6	7
1	Obligatory educational components	36,0	1080,0			40%
1.1	General training	9,0	270,0			10%
GT1	Intellectual Property	3,0	90,0		2	202
GT2	Foreign Language in Professional Field	3,0	90,0		1	275
GT3	Innovative Entrepreneurship and Startup project Management	3,0	90,0		1	202
1.2	Special (professional) training	27,0	810,0			30%
PT1	Modern Technologies of Secure Programming	4,0	120,0	1		326
PT2	Tools and Algorithms for Decision Making	5,0	150,0	1		326
PT3	Process Optimization in Multi-service Systems and Networks	4,0	120,0	2		326
PT4	Programming for Global Networks	5,0	150,0	2		326
PT5	Fundamentals of Neurocomputing	4,0	120,0	2		326
PT6	Fundamentals of Scientific Researches	5,0	150,0	2		326
2	Practical training	15,0	450,0			17%
PT 1	Pre-graduation Practice*	15,0	450,0			
3	Attestation	15,0	450,0			17%
4	Optional educational component	24,0	720,0			27%
4.1	Profile training	16,0	480,0			18%
4.1.1	Profiled discipline package 01 "Computer Systems and Networks"	16,0	480,0			
OP1.1	Hardware for Local and Wide Area Networks	5,0	150,0	1		326
OP1.2	Microcontroller Devices Engineering	6,0	180,0	1		326
OP1.3	Design of Corporate Networks	5,0	150,0	2		326
4.1.2	Profiled discipline package 02 "System Programming"	16,0	480,0			
OP2.1	Corporate Networking Programming	5,0	150,0	1		326
OP2.2	Theory of Translator Construction	6,0	180,0	1		326
OP2.3	Machine Learning	5,0	150,0	2		326
4.1.3	Profiled discipline package 03 "Specialized Computer Systems"	16,0	480,0	4		200
OP3.1 OP3.2	Corporate Networking Software Computer Game Content Modeling and Optimization	5,0 6.0	150,0 180.0	1		326 326
OP3.2 OP3.3	Methods and Means for Modeling Complex Dynamic Objects	5,0	150,0	2		326
UP3.3	Ĭ i i i i	ა,0	150,0			320
4.2	Optional student disciplines of the profile preparation according to the list (the list is attached)	8,0	240,0			9%
	Total for education period	90,0	2700,0			

ома Моп1-21_(1,4) V. EDUCATION PROCESS PLAN

		Seme	ester distri	bution				Number	of hours			Distribu		assroom he			d ECTS	
	İ							Class	sroom				1 c	ourse		2 co	ourse	
					its						1		Seme	esters		Seme	sters	
_					credits				including				1	2	2	;	3	İ
Ne 3H	Назва навчальної дисципліни				ပို့				, s	σ	ž		Numbe	er of weeks	s in the se	emester		İ
				Individual tasks	ECTS	_#			works	Practical studies	Independent work	2	20	2	0	1	16	İ
				<u>=</u>	of E	amount			کِ	str	l den							Department
		ဋ		l sp	Je.	am		res	ratc	ical	e z	02 s <u>r</u>	۰. ۵	l sir	۰. ۵	l oo sir	0	ᄩ
		Exams	Tests	<u>i</u> ∑	Number	Total	Total	Lectures	aboratory	act	l deb	Classroo m hours	ECTS credits	Classroo m hours	ECTS credits	Classroo m hours	ECTS credits	e ba
1	2	<u>பி</u> 3	4	<u>⊆</u> 5	<u> </u>	7	<u>⊢</u> 8	9	10	11	_ <u></u> 12	<u>Ö E</u> 13	<u>й 5</u> 14	<u> </u>	<u>шъ</u>	Ö E 17	<u>ш</u> 5	29
1	Obligatory educational components	3	4	5	36.0	1080.0	480.0	224.0	112,0	144,0	600.0	12.0	15,0	18.0	21.0	17	18	29
1.1	General training				9,0	270,0	96,0	48,0	112,0	48,0	174,0	4,0	6,0	2,0	3,0			
GT1	Intellectual Property		2	R	3,0	90,0	32,0	16,0		16,0	58,0	4,0	0,0	2.0	3,0			202
GT2	Foreign Language in Professional Field		1	R	3.0	90.0	32.0	16,0		16.0	58.0	2.0	3.0	2,0	0,0			275
GT3	Innovative Entrepreneurship and Startup project		1	R	3,0	90,0	32,0	16,0		16,0	58,0	2,0	3,0					202
	Management						-	·	440.0			·		40.0	40.0			
1.2 PT1	Special (professional) training Modern Technologies of Secure Programming	1			27,0 4,0	810,0 120,0	384,0 64,0	176,0 16,0	112,0 32,0	96,0 16,0	426,0 56,0	8,0 4,0	9,0 4,0	16,0	18,0			326
PT2	Tools and Algorithms for Decision Making	1		С	5,0	150,0	64.0	32,0	16,0	16,0	86.0	4,0	5,0					326
	Process Optimization in Multi-service Systems	<u> </u>			,		, , ,				,	4,0	3,0					
PT3	and Networks	2			4,0	120,0	64,0	32,0	16,0	16,0	56,0			4,0	4,0			326
PT4	Programming for Global Networks	2		CW	5,0	150,0	64,0	32,0	32,0		86,0			4,0	5,0			326
PT5	Fundamentals of Neurocomputing	2			4,0	120,0	64,0	32,0	16,0	16,0	56,0			4,0	4,0			326
PT6	Fundamentals of Scientific Researches	2		С	5,0	150,0	64,0	32,0		32,0	86,0			4,0	5,0			326
2	Practical training				15,0	450,0					450,0						15,0	
PT 1	Pre-graduation Practice*				15,0	450,0					450,0						15,0	
3	Attestation				15,0	450,0					450,0						15,0	
4	Optional educational component				24,0	720,0	304,0	160,0	80,0	64,0	416,0	12,0	15,0	7,0	9,0			
4.1	Profile training				16,0	480,0	208,0	96,0	48,0	64,0	272,0	9,0	11,0	4,0	5,0			
4.1.1	Profiled discipline package 01 "Computer Systems and Networks"				16,0	480,0	208,0	96,0	48,0	64,0	272,0	9,0	11,0	4,0	5,0			
OP1.1	Hardware for Local and Wide Area Networks	1		С	5,0	150,0	64,0	32,0		32,0	86,0	4,0	5,0					326
OP1.2	Microcontroller Devices Engineering	1		CP	6,0	180,0	80,0	32,0	32,0	16,0	100,0	5,0	6,0					326
OP1.3	Design of Corporate Networks	2		С	5,0	150,0	64,0	32,0	16,0	16,0	86,0			4,0	5,0			326
4.1.2	Profiled discipline package 02 "System Programming"				16,0	480,0	208,0	96,0	64,0	48,0	272,0	9,0	11,0	4,0	5,0			
OP2.1	Corporate Networking Programming	1		С	5,0	150,0	64,0	32,0	16,0	16,0	86,0	4,0	5,0					326
OP2.2	Theory of Translator Construction	1		CP	6,0	180,0	80,0	32,0	32,0	16,0	100,0	5,0	6,0					326
OP2.3	Machine Learning	2		С	5,0	150,0	64,0	32,0	16,0	16,0	86,0			4,0	5,0			326

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	29
4.1.3	Profiled discipline package 03 "Specialized Computer Systems"				16,0	480,0	208,0	96,0	64,0	48,0	272,0	9,0	11,0	4,0	5,0			
OP3.1	Corporate Networking Software	1		С	5,0	150,0	64,0	32,0	16,0	16,0	86,0	4,0	5,0					326
OP3.2	Computer Game Content Modeling and Optimization	1		СР	6,0	180,0	80,0	32,0	32,0	16,0	100,0	5,0	6,0					326
OP3.3	Methods and Means for Modeling Complex Dynamic Objects	2		С	5,0	150,0	64,0	32,0	16,0	16,0	86,0			4,0	5,0			326
4.2	Optional student disciplines of the profile preparation according to the list (the list is attached)				8,0	240,0	96,0	64,0	32,0		144,0	3,0	4,0	3,0	4,0			326
	Total for education period				90,0	2700,0	784,0	384,0	192,0	208,0	1916,0	24,0	30,0	25,0	30,0		30,0	
	Hours per week				-	-						24	l,0	25,0				
	Number of exams									4		5						
	Number of tests												3	2				
	Number of course projects (works)											•	1	1				
	Numbers of disciplines per semester											6	,0	6,	0			

	Individual tasks
С	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 № 5 from 02.06.2023

Head of the educational program

Vice-rector of Scientific-and-Pedagogical Work	Genr	madis VUDVDINOV	"Modern programming, mobile devices and computer game"	Svitlana	GAVRYLENKO
ni	с ІП			підпис	IΠ
Director of the Educational and Scientific			Used of the Department		
Institute of Computer Sciences and Information	B.O. stell		Head of the Department	Olaka andu '	ZAKOVODOTNIVI
recnnologies		mailo GODLEVSKY	HASBA KADEDIN	Oleksandr A	ZAKOVOROINTI
Technologies		hailo GODLEVSKY	"Computer Engineering and Programming"	Oleksandr 2	ZAKO

Форма Моп1-21_(1,4) CS-M923i.e List of optional student disciplines of the profile training

		Seme	ester distril	bution				Number	of hours			Distribu	Distribution of classroom hours per a wee			week and E	ECTS cred	lits per a s	emester	
					1			Class	sroom				1 co	urse			2 co	urse		
order					dits				to alcostina				Seme	sters			Seme	sters		
i o					Crec				including				1		2	;	3			
₩.	Name of academic discipline				မို		<u>\$</u> \$		ork	Number of				s in the se	mester					
Numbe				tasks		r T			wor	studies	>	2	20	2	20	1	6			
Z		Exams	Tests	Individual ta	Number of I	Total amou	Total	Lectures	Laboratory	Practical stu	Independent	Classroom	ECTS credits	Classroom	ECTS credits	Classroom	ECTS credits	Classroom	ECTS credits	Department
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	29
2.2	Optional student disciplines of the profile training																			
OPT1	Monitoring and Diagnostics of Computer Systems		1		4,0	120,0	48,0	32,0	16,0		72,0	3,0	4,0							326
OPT2	Application of Multi-valued Logic in Computer Systems		2		4,0	120,0	48,0	32,0	16,0		72,0			3,0	4,0					326
ОРТ3	Design of Diagnostic Programs for Computer Systems and Networks		1		4,0	120,0	48,0	32,0	16,0		72,0	3,0	4,0							326
OPT4	Software Design of Microcontroller Devices		2		4,0	120,0	48,0	32,0	16,0		72,0			3,0	4,0					326
OPT5	Design of Computer Diagnostic Systems		1		4,0	120,0	48,0	32,0	16,0		72,0	3,0	4,0							326
OPT6	Specialized Computer Systems		2		4,0	120,0	48,0	32,0	16,0		72,0			3,0	4,0					326

НАВЧАЛЬНИЙ ПЛАН №	CS-M923i.e
Форма навчання	i.e
Шифр інституту (факультету)	320
Скорочена назва інституту (факультету)	CS
Номер освітньої програми	9
Назва освітньої програми	Modern programming, mobile devices and computer games
Шифр галузі знань	12
Назва галузі	Information Technologies
Шифр спеціальності	123
Назва спеціальності	Computer Engineering
Рівень вищої освіти:	second (master`s) level
Кваліфікація:	Master of Computer Engineering
Рік (останні 2 цифри)	23
Відповідальний за інформацію, телефон	FILATOVA Hanna, 7076165

Форма: плани МАГІСТР	освітньо-професійний
Форма Моп1-21	1,4