Cabinet of Ministers of Ukraine

National University of Life and Environmental Sciences of Ukraine

CURRICULUM

of training specialists 2013 year of entry

Education qualification level	«Bachelor»
area of expertise	0507 - Electrical and electro mechanics
in the direction	6.050701 - ELECTRIC MACHINERY AND ELECTRIC TECHNOLOGIES
Form of education	High
Apprenticeship	<u>3 years 10 mounts</u>
Qualifying graduates	Technical specialist - Electrician
	Implement training of bachelors
INSTITUTE OF	ENERGETICS AND AUTOMATION
FACULTY OF	ENERGETICS AND AUTOMATION

I. Schedule of learning process

a) training specialists "Bachelor" since 2013 Specialty 6.050701 - ELECTRIC MACHINERY AND ELECTRIC TECHNOLOGIES

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									20	013 y	ear																							1	2014	yea	ır															
a)	Se	epte	mbe	er	30	0	ctobe	er	28		No	/emb	er		Dec	emb	er	30		Janu	ary	27	ľ F	ebru	uary	24	Ļ	M	arch		31	A	April	1	28		Ma	ау			Ju	ine		30		July	,	28		Aug	gust	
ILS	2	9	16	23	IX	7	14	21	Х	4	11	18	25	2	2 9	10	5 23	XI	6	13	20	I	3	1() 17	Π	3	10	17	24	Ш	7	14 2	21 I	IV	5	12	19	26	2	9	16	23	VI	7	14	21	VII	4	11	18	25
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	1	2	3	4	5	6	7	8	9	10	11	12	13	1	4 1:	5 16	5 17	18	19	20	21	22	2	3 24	4 25	26	2	7 28	29	30	31	32	33 3	34 3	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Ι																	:	-	-																				••	••	0	0	0	0	0	-	-	1	-	I	1	-

Legend:



Vacation



Diploma planning -

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State certification -

б) training specialists "Bachelor" since 2013-2014

Specialty 6.050701 - ELECTRIC MACHINERY AND ELECTRIC TECHNOLOGIES

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a)	S	epte	mber	r	30	00	tob	er	28		No	over	nbe	r		De	cem	nber		30	J	anua	ary	2	7	Fel	brua	ary	24	1	Ν	Лаrc	ch		31	Ap	oril	2	8		Μ	ay				June	ē		30		July	,	28		Au	ıgust		
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III																		:	•	-	-																						•	:	Σ	X	X	Х	Х	Х	-	-	I	-	-	-	-	,
IV																		:	:	-	-																:		•	II	Π	II	//															

Legend:

Theoretical study : Examination period -

Vacation

Manufacturing Practice -

Ш Diploma planning -

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State certification -

Dean of the Faculty _

I.Rad'ko

		II. PLAN OF EDUCATIONAL PROCESS The total amount Forms of knowledge control according to servesters Classroom hours The practical training Distribution of weekly hourse by the courses and servesters A nd course A nd cour																			
		The amo	total ount	Forms contro s	s of know of accord emester	vledge ling to s		Classroo	om hours	5		The p trai	ractical ning	IDistribution of weekly hours courses and semester 1 nd course2 nd course3 nd course 1 2 3456 Quantity week in a sem1616161615101516171819202221122221333332222234400		e by t rs	∶he				
		-											é	1 n cou	d rse	2 n cou	d rse	3 n cou	d rse	4 r cou	id Irse
N⁰	Course title	s				ect					study	actice	ractic				sem	ester	S		
		our	its	E	t	roj	e		ses	ses	self	pti	d b	1	2	3	4	5	6	7	8
		d b	red	exai	tes	se p	vho	SS	clas	lass		ona	urir		Qu	antity	weel	k in a	seme	ester	
		aca	o	U		cours	5	lecture	laboratory o	practical cl		educatio	manufact	16	16	16	16	15	10	15	8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
					1. NO	ORMAT	IVE ACA	DEMIC	DISCIPL	INES											
				1.1.	Cycle o	f huma	nitarian	and soc	io-econo	omic trai	ining										
1	History of Ukraine	108	3,0	1			38	19		19	70,0				2						
2	Philosophy	108	3,0	2			38	19		19	70,0				2						
3	Ukrainian language (for professional purposes)	108	3,0	1			32			32	76,0			2							
4	Foreign Language	216	6,0	4	1;2;3		140			140	76,0			2	2	2	2				
5	The history of Ukrainian culture	72	2,0	1			48	32		16	24,0			3							
6	Politics	72	2,0		6		28	14		14	44,0										2
7	Physical Education **	360	10,0		1-4		140			140	220,0			2	2	2	2				
	The total number of cycles	684,0	19,0			0,0	324,0	84,0	0,0	240,0	360,0			9	8	4	4	0	0	0	2
					1.2. Cy	ycle of	natural s	science	(basic) t	raining											
1	High Mathematics	684	19,0	1,2,4	3		423	212	38	173	261,0			5	6	6	6				

2	Technical mechanics	144	4,0	2			76	38		38	68,0				4						
3	Computers and algorithmic languages	360	10,0	1,3	2		189	51	102	36	171,0			3	3	3					
4	Engineering Graphics	144	4,0	2	1		105	35		70	39,0			3	3						
5	General Physics	396	11,0	2,3	1		210	136	36	38	186,0			3	5	3					
	The total number of cycles	1728	48				1003	472	176	355	725			14	21	12	6	0	0	0	0
					1.3. Cyo	cle at pr	ofessior	nal and p	ractical	training	9										
1	Ecology for professional purposes	72	2,0		3		32	16		16	40,0					2					
2	Theoretical Foundations of Electrical EngineeringTheoretical Foundations of Electrical Engineering	576	16,0	3,4,5			274	102	86	86	302,0					6	6	4			
3	Electric machines	252	7,0	6	5		159	70	89		93,0							4	5		
4	Electrical materials	108	3,0		4		76	38	38		32,0	90					4				
5	Metrology and electrical measurements	180	5,0	4			76	38	38		104,0						4				
6	Electrical systems and networks	288	8,0	6,8	5,7	30	235	151	32	52	23,0		50					2	5	4	6
7	High Voltage Engineering	144	4,0	7			64	32	32		80,0									4	
8	Economics and industrial engineering	108	3,0	5			48	32		16	60,0							3			
9	Electrical stations and substations	216	6,0	7		30	98	42	56		88,0		100								7
10	Basics of relay protection and automation of power systems	144	4,0	8			84	56	28		60,0										2
11	Safety and Occupational Health	108	3,0		6		38	19		19	70,0								2		

	in the field of																				
	The total number of cycles	2196	61				1184	596	399	189	952	90	150	0	0	8	14	13	12	8	15
					•	1.3.2 C	ycle of p	oractical	training				•								
1	Educational Practice	360	10,0																		
2	Industrial practice	180	5,0																		
3	Diploma planning	324	9,0																		
	The total number of cycles	864	24,0																		
						2.S	ELECTIV	E COUR	SES												
					2	2.1. Univ	versity C	hoice Di	scipline	s											
1	Diagnostics, and electrical repair	288	8,0	7	6		140	70	19	51	148,0								3	4	
2	Fundamentals of Scientific Research	108	3,0		8		36	28		28	72,0										4
3	Basics of installing power lines	180	5,0		5		48	16	16	16	82,0		50					3			
4	Thermotechnics	144	4,0		3		64	32	16	16	80,0					4					
5	Chemistry	108	3,0	1			48	32	16		60,0			3							
6	Theory of automatic control	216	6,0	6	5		140	70	70		76,0							4	4		
7	Technology of construction materials	108	3,0		3		32	16	16		76,0					2					
8	Principles of Management	108	3,0		8		28	14		14	80,0										2
9	Labour protection	144	4,0	7			48	16	16	16	96,0									3	
10	Industrial Electronics	144	4,0		5		64	32	16	16	80,0							4			
11	Introduction to the profession	108	3,0		1		32	32			16,0	60		2							
12	Mathematical problems of energy	252	7,0	6	5	15	140	70	35	35	97,0							4	4		

13	Power equipment of power	144	4,0	4			76	38	38		68,0						4				
14	Transients in power	144	4,0	8		15	80	48	16	16	49,0									5	
15	Reliability and design of electrical systems	216	6,0	8	7		120	76		44	96,0									4	4
16	Expert systems for decision- making in the energy sector	144	4,0		7		48	32		16	96,0									3	
17	Fundamentals of mechanical parts LEP	108	3,0		6		38	19		19	70,0								2		
18	Computers and computer technologies	216	6,0	8	1,7		122	46	76		94,0			2						3	3
	The total number of cycles	2880	80			30	1304	687	350	287	1436	60	50	7	0	6	4	15	13	22	13
					2.2	. Discip	lines ch	osen by	the stuc	lent						_			_	11	
				2.2.1	Cycle o	of huma	nitarian	and soc	io-econ	omic tra	ining										
1	Philosophy (ethics, aesthetics)	72	2,0		4		38	19		19	34						2				
2	Psychology	72	2,0		5		32	16		16	40							2			
3	Sociology	72	2,0		6		38	19		19	34								2		
4	Essentials of economic theory	72	2,0		6		32	16		16	40								3		
5	Culture of communication	72	2,0		4		38	19		19	34						2				
6	Speech and housekeeping	72	2,0		4		38	19		19	34						2				
7	Fundamentals of Law	72	2,0		8		28	14		14	44										2
8	Latin language	72	2,0		4		32	16		16	40							2			
9	Family and domestic culture	72	2,0		5		32	16		16	40								2		
10																					
-	Folk Art	72	2,0		5		38	19		19	34								3		

12	International Protocol and Ethics	72	2,0	4	32	16		16	40						2				
13	Marketing	72	2,0	4	38	19		19	34						2				
14	Pedagogics	72	2,0	5	38	19		19	34							2			
15	Logic	72	2,0	6	32	16		16	40								2		
16	Ethics	72	2,0	6	38	19		19	34								3		
17	Ukrainian Literature	72	2,0	4	38	19		19	34						2				
18	Philosophy (ethics, aesthetics)	72	2,0	5	32	16		16	40							2			
19	Military training	675	18,75		450			450	222										
20	Cultural awareness training	180	5		175			175	5										
	The total number of cycles	288	8		165	92		73	123							2	2	5	
	Total	8640	240		3980	1931	925	1144	3596	150	200	30	30	30	30	30	30	30	30

III. STRUCTURE of the CURRICULUM

Cycle of disciplines	Hours	Credits	%
1. Statutory subjects			
1.1. Cycle of the humanities and socio-economic disciplines	684	19,0	8
1.2. Cycle disciplines of natural science (basic) training	1728	48,0	20
1.3. Cycle disciplines of professional and practical training	3060	85,0	35
2. Selective Courses			
2.1. Elective Courses University	2880	80,0	33
2.2. Disciplines chosen by the student	288	8,0	3
In all for GLR	8640	240	100

VII. STATE CERTIFICATION

Nº	Component of certification	Hours	Credits	Weeks
1	State exam			
2	Protection baccalaureate work	324	9	5

IV. SUMMARY TIME BUDGET(WEEKS)

	Theoretical	Examination	Practical	Preparing baccalaureate	State certificatio	
Courses	study	period	training	work	n	Holidays
1	34	4	5			8
2	34	4	5			8
3	34	4	5			8
4	29	4		4	1	2
In all for	131	16	15	4	1	26

V. PRACTICAL TRAINING

Nº	Kind of practise	Semester	Hours	Credits	Weeks
1	Educational introductory	2	36	1	1
2	Training electromechanical	2	144	4	4
3	Training electroassembly	4	180	5	5
4	Production operating 1st module	6	180	5	5

VI. COURSEWORK AND PROJECTS

Nº	Subjects	Hours	Credits	Coursework	Course project
1	Transient processes in power industry	15	0,5	CW	
2	Mathematical problems power engineering	15	0,5	CW	
3	Electrical Systems and Networks	30	1		СР
4	Electrical stations and substations	30	1		СР