

ELECTRICAL ENERGY AND ELECTRICITY SUPPLY

CURRICULUM

BACHELOR, EXTERNAL TRAINING

(course projects are included in the curriculum)

Year	Semester	Nr.	Subject Code	Full name of the subjects (course projects, practical training)	Form of control E/PCA	Teaching hours,		semester	ECTS	
						weekly				
						L	PE			
FIRST	First	1	361101	Mathematics – Part I	E	12	21	33	5.9	
		2	361102	Mathematics – Part II	E	18	28	46	8.2	
		3	211113	Mining Technology - 221141	E	20	8	28	5.0	
		4	351111	Technical Documentation + course project	E	6	22	28	5.0	
					<i>First semester</i>			135	24.0	
		Sec ond	1	361103	Mathematics – Part III	E	18	24	42	7.6
	2		181101	Physics	E	28	21	49	8.8	
	3		371103	Programming + course project	E	14	28	42	7.6	
				<i>Second semester</i>			133	24.0		
				<i>Total for the first year</i>			268	48		

Year	Semester	Nr	Subject Code	Full name of the subjects (course projects, practical training)	Form of control	Teaching hours, weekly		Total hours for the semester	ECTS	
						L	PE			
D	First	1	351101	Science of Machines + course project	E	20	6	26	5.0	
		2	341101	Theoretical Electrical Engineering – Part I	E	20	20	40	7.6	
		3	281112	Mechanics + course project	E	18	18	36	6.9	
		4	351110	Heat Technique and Heat-Power Engineering	E	18	6	24	4.6	
	<i>First semester:</i>								126	24.0
	Seco nd	1	341102	Theoretical Electrical Engineering – Part II	E	20	20	40	6.9	
		2	341105	Electrical Measurements	E	18	20	38	6.5	
		3	341108	Electrical Technical Materials	E	16	12	28	4.8	
		4	341107	Electronics	E	22	12	34	5.8	
	<i>Second semester:</i>								140	24.0
<i>Total for the second year:</i>								266	48	

Year	Semester	Number	Subject Code	Full name of the subjects (course projects, practical training)	Form of control	Teaching hours, weekly		Total hours for the semester	ECTS	
						П	У/С			
THIRD	First	1	341110	Electrical Machines – Part I	E	16	18	34	6.4	
		2	311117	Mining Technique	E	22	12	34	6.4	
		3	331129	Power Electronic and Converter Systems	E	18	12	30	5.6	
		4	311114	Hydraulic and Pneumatic Engineering	E	18	12	30	5.6	
	<i>First semester</i>								128	24.0
	Seco nd	1	341111	Electrical Machines – Part II + course project	E	20	26	46	7.9	
		2	321104	Lighting and Network Engineering	E	24	12	36	6.2	
		3	321101	Electrical Devices + course project	E	18	18	36	6.2	
		4	4112	XX Philosophical Sciences (eligible)**	E	16	6	22	3.8	
	<i>Second semester:</i>								140	24.0
<i>Total for the third year:</i>								268	48	

Year	Semester	N ^o number	Subject Code	Full name of the subjects (course projects, practical training)	Form of control	Teaching hours		Total hours for the semester	ECTS	
						weekly				
FOURTH	First				E/PCA	L	PE			
		1	321102	Electrical Networks and Systems + course project	E	24	20	44	7.9	
		2	331101	Automated Electrical Drive + course project	E	26	16	42	7.5	
		2	331139	Digital and Microprocessor Technique + course project	E	16	12	28	5.0	
		3	311116	Technique and Technologies of Mineral Processing	E	16	4	20	3.6	
	Seco nd	<i>First semester</i>							134	24.0
		1	321103	Electrical Part of Electric Power Stations and Substations + course project	E	26	16	42	7.2	
		2	271119	Economics and management	E	26	12	38	6.5	
		3	331108	Electrical Equipment + course project	E	26	16	42	7.2	
		4	321107	Electricity Safety in Industry	E	12	6	18	3.1	
	<i>Second semester:</i>								140	24.0
	<i>Total for the fourth year:</i>								274	48

Year	Semester	No	Subject Code	Full name of the subjects (course projects, practical training)	Form of control E/PCA	Teaching hours		Total hours for the semester	ECTS
						weekly			
						L	PF		
FIFTH	First	1	321109	Electrical Equipment of Explosive Production					
		2	***	Special Subject (eligible)***	E	14	6	20	3.8
		3	331122	Bases of Automation	E	20	10	30	5.6
		4	321105	Electricity Supply	E	22	12	34	6.4
				<i>First semester:</i>	E	32	12	44	8.3
	Sec ond	1	261102	Technical Safety				128	24.0
		2	321108	Installation and Exploitation of Electrical Equipment	E	12	8	20	4.6
		3	321106	Communication Systems	E	18	12	30	6.9
		4	171126	Ecology and Environmental Protection	E	20	14	34	7.8
				<i>Second semester:</i>	E	14	6	20	4.6
			<i>Total for the fifth year:</i>				104	24.0	
	5	321114	Diploma Paper				232	48	
						3		10	

III. Eligible Subjects:

**	411202	Logics
**	411206	Culturology
**	411201	History of Philosophy
***	321210	Electricity Supply and Electrical Equipment for Transport and Storage of Oil and Gas
***	321211	Restorable Energy Sources
***	311215	Electrical Transport

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CURRICULUM

MASTER, EXTERNAL TRAINING

(course projects are included in the curriculum)

Year	Semester	No. ber	Subject code	Full name of the subjects (course projects, practical training)	Form of control E/PCA	Hours, weekly		Total hours for the semester	ECTS	
						L	PE			
FIRST	First	1	362107	Mathematical Methods in Technique	E	22	16	38	7.6	
		2	*	Information Technologies (eligible) * + course project	E	14	30	44	8.8	
		3	322121	Energy Technologies with Restorable Energy Sources + course project	E	24	6	30	6.0	
		<i>First semester:</i>						60	52	112
	Second	1	322120	Technique of High Voltage + course project	E	14	8	22	4.1	
		2	332136	Control of Electrical Drive in Mines	E	22	14	36	6.6	
		3	322122	Optimization of Power Supply in Enterprises + course project	E	22	14	36	6.6	
		4	322123	Explosion Protection Equipment and Explosion Protection Systems	E	14	14	28	5.2	
		<i>Second semester:</i>						72	50	122
	<i>Total for the first year:</i>								234	45

NOTE:

First academic semester - 15 weeks

Second academic semester - 15 weeks

Year	Semester	No	Subject code	Full name of the subjects (course projects, practical training)	Form of control E/PCA	Teaching hours, weekly		Total hours for the semester	ECTS	
						L	PE			
SECOND	First	1	322124	Energy Saving in Mines + Course project	E	24	14	38	6.9	
		2	322125	Transient Processes in Power Supply Systems	E	16	14	30	5.4	
		3	**	Eligible**	E	24	8	32	5.8	
		4	322126	Research Project			24	24	4.4	
	<i>First semester</i>								124	22.5
	Second	1	32 21 28	Electrostatic Charge and Explosion Protection	E	16	8	24	22.5	
		<i>Second semester</i>								24
	<i>Total for the second year</i>								148	45
				322120	Diploma Paper - consultations			48	48	15

NOTE:

First academic semester - 15 weeks

*	32 22 19	Application Computer Programs
*	372228	Control Systems in Administrative and Economic Activities
*	372204	Computer Networks and Communications
*	3722xx	Programming Language C++
**	272248	Management and Marketing
**	4122XX	Bases of Law