

"Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Automation, Electronics and Computer Management in Electric Transport

Degree: Bachelor

Mode of study: Full time

Duration of study: 4.0 years

No	Code	Course	Total contact hours (Hours of lectures and seminars)	ECTS credits
<i>Compulsory courses</i>				
1	811	Mathematics part I	75	7
2	1114	Physics	90	7
3	821	Informatics	90	7
4	1002	Computer Drawing for Engineers	45	4
5	702	Economics	45	4
6.1	1221	Casting	0	0
6.2	1222	Welding	0	0
6.3	1223	Thermal Treatment	0	0
6.4	1225	Turnery	0	0
6.5	1224	Locksmith	0	0
7	812	Mathematics part II	75	7
8	715	Foreign Language - English, German, French, Russian	90	6
9	824	Computer Technologies and Programming	75	8
10	1101	Theoretical Electrical Engineering part I	90	8
11	1379	Training practice in electrical technology	0	0
12	815	Mathematics part III	60	6
13	1102	Theoretical Electrical Engineering part II	60	6
14	13123	Principles of Electronics	60	5
15	1110	Electrical and Electronic Measurements	75	5
16	1216	Materials and Technologies in Electronics	45	3
17	904	mechatronic systems	75	5
18	13165	Technical and Fire Safety	45	3
19	1398	Electromechanical Devices	90	7
20	13124	Theory of Management	75	6
21	13125	Analog and Pulse Circuitry	75	7
22	13122	Electromechanical Devices - make a project	0	3
23	13126	Schematics - practicum	45	4
24	13127	Digital and Microprocessor Technique	75	7
25	13128	Sensor Technology	60	6
26	1383	Electrical Power Supply of the Electric Transport	90	7
27	13129	Technically Automation Tools	90	7
28	13130	Technically Automation Tools - make a project	0	3
29	13131	Converting Technique in Electric Transport	75	7
30	1380	Electrical equipment of electric transport	60	6
31	13132	Implementation of Microprocessor Systems in Electric Transport Vehicles	60	6
32	13133	Automatics in Electrical Transport	60	6
34	13134	Implementation of Computer Systems in Transport	90	7
35	13135	Management of Electromechanical Systems	90	7

36	13136	Computer-aided Design of Project Documentation	75	6
37	13137	Microprocessor System Setup and Diagnostics	90	8
37	719	Physical Education and Sports	0	0
<i>Elective courses</i>				
38	707	Course in Foreign Language in Engineering	45	3
40.1	13138	Modern systems for management, control and protection of electric vehicles	60	6
40.2	13139	Contemporary Systems Management, Control and Protection in Power Supply Facilities in the Electric Transport	60	6
41.1	13140	Electric Drives Control Algorithms of Electrical Vehicles	60	7
41.2	13141	Automatics and Control of Electric Power Supplies Equipment of Electric Transport	60	7
41.3	13142	Design and Simulation of Circuits in the Programmable Environment	60	7
42.1	13143	Transmission Technology in Electric Transport - make a project	0	3
42.2	13144	Electrical Equipment in Electrical Transport - make a project	0	3
42.3	13145	Management of Electromechanical Systems - make a project	0	3
43.1	13146	Modern Technologies in the Development of Electric Vehicles	60	6
43.2	13147	Contemporary Trends in the Traction Power Supply Systems Development	60	6
<i>Optional courses</i>				
44.1	13148	Schemes of Main Electrical Circuits and Automation of Electrical Transport Vehicles of Urban Transport	75	6
44.2	13149	Schemes of Main Electrical Circuits and Automation of Electrical Rolling Stock in the Rail Transport	75	6
44.3	13150	Schematics of Main Electrical Circuits and Automation of Power Supply Systems in Electric Transport	75	6
44.4	13151	Design of Electronic Control Circuits for Driving Electrical Transport Vehicles	75	6
45.1	13152	Electronic Devices and Control Systems for Electrical Vehicles in the Public Transport	75	6
45.2	13153	Electronic Devices and Control Systems for Electrical Rolling Stock in Rail Transport	75	6
45.3	13154	Electronic Devices and Control Systems for Power Supply Systems in the Electrical Transport	75	6
45.3	13158	Diagnostics and Repair of Electronic Devices for Power Supply Systems in Electrical Transport	75	6
45.4	13155	Design of Electronic Circuits for Management of Power Supply and Building Systems	75	6
46.1	13156	Diagnostics and Repair of Electronic Devices for Electrical Transport Vehicles for Public Transport	75	6
46.2	13157	Diagnostics and Repair of Electronic Devices for Electrical Rolling Stock for Railway Transport	75	6
46.4	13159	Programming Microcontrollers and Working with PLC	75	6