

"Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Electric Vehicles

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	871	Mathematics	75	7
2	1114	Physics	75	7
3	821	Informatics	60	7
4	703	Economic History	45	4
5	702	Economics	45	4
6	881	Applied Mathematics	75	8
7	715	Foreign Language - English, German, French, Russian	75	7
8	914	Applied Mechanics	75	7
9	1101	Theoretical Electrical Engineering part I	75	8
10	1102	Theoretical Electrical Engineering part II	75	8
11	1006	Fundamentals of Machine Design and Construction	75	7
12	1110	Electrical and Electronic Measurements	75	8
13	13197	Electrotechnical materials	60	7
14	13165	Technical and Fire Safety	45	3
15	13171	General Drive of Hybrid and Electric Vehicles	45	3
16	1309	Power Electronics	75	7
17	1304	Electrical Apparatuses	75	8
18	1303	Electrical Machines	75	7
19	1308	Electrical Supply	60	6
20	13198	Sensor and transducer technology	60	7
21	696	Hydraulic and Pneumatic Systems in Electric Transport	45	4
22	13129	Technically Automation Tools	75	7
23	13173	Electricity supply systems for electric vehicles	60	6
24	1307	Electrical Equipment	75	6
25	13174	Electromotive electric drive	75	6
26	13175	Electromotor electric drive - course project	0	3
27	13176	Autonomous power supply for electric vehicles	45	4
28	13177	Traction and energy calculations for electric vehicles	60	6
29	13180	Diagnostics and testing of electric vehicles	60	6
30	13181	Digital and microprocessor engineering in electric vehicles	60	6
31	13182	Ecological problems of electrical mobility	60	4
32	13183	Modern tendencies in the development of electric mobility	45	4
33	719	Physical Education and Sports	0	0
	1224	Locksmith	0	0
	1225	Turnery	0	0
	1223	Thermal Treatment	0	0

	1222	Welding	0	0
	1221	Casting	0	0
<i>Elective courses</i>				
34.1	707	Course in Foreign Language in Engineering	45	3
35.1	13224	Design of equipment for charging electric cars	45	6
35.2	13225	Design of electrical equipment of electric vehicles	45	6
36.1	13226	Design of equipment for charging electric cars - course project	0	3
36.2	13227	Design of electrical equipment of electric vehicles - course project	0	3
37.1	13184	Hybrid cars	60	5
37.2	13185	Electric cars with autonomous power supplies	60	5
38.1	13186	Traction and propulsion protection systems for hybrid cars	60	8
38.2	13187	Systems for controlling and protecting traction electric drive of electric vehicles	60	8
39.1	13188	Technical Operation of Electrical Systems of Hybrid Vehicles	60	8
39.2	13189	Technical operation of electrical systems of electric vehicles	60	8
<i>Optional courses</i>				
40.1	13193	Safety and health in the operation of hybrid cars	60	4
40.2	13194	Safety and health in the operation of electric vehicles with autonomous power	60	4
41.1	13195	Service technology for the electrical systems of hybrid cars	75	6
41.2	13196	Technology of service servicing of electrical systems of electric vehicles	75	6