

"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	811	Mathematics part I	75	7
2	1114	Physics	90	7
3	821	Informatics	90	7
4	703	Economic History	45	4
5	702	Economics	45	4
6	1221	Casting	0	0
6	1224	Locksmith	0	0
6	1222	Welding	0	0
6	1225	Turnery	0	0
6	1223	Thermal Treatment	0	0
7	812	Mathematics part II	75	7
8	1210	Chemistry	45	3
9	715	Foreign Language - English, German, French, Russian	90	6
10	914	Applied Mechanics	75	6
11	1101	Theoretical Electrical Engineeing part I	90	8
12	815	Mathematics part III	60	6
13	1102	Theoretical Electrical Engineeing part II	60	6
14	1006	Fundamentals of Machine Design and Construction	90	6
15	1110	Electrical and Electronic Measurements	75	5
16	13197	Electrotechnical materials	60	7
17	13165	Technical and Fire Safety	45	3
18	13171	General Drive of Hybrid and Electric Vehicles	60	4
19	1309	Power Electronics	75	6
20	13172	Sensing and conversion equipment in electric vehicles	75	7
21	1303	Electrical Machines	90	7
22	1368	Electrical Machines- Course Project	0	3
23	1304	Electrical Apparatuses	90	7
24	1308	Electrical Supply	75	7
25	696	Hydraulic and Pneumatic Systems in Electric Transport	45	3
26	13129	Technically Automation Tools	90	7
27	13173	Electricity supply systems for electric vehicles	75	6
28	1307	Electrical Equipment	75	6
29	13174	Electromotive electric drive	75	6
30	13175	Electromotor electric drive - course project	0	3
31	13176	Autonomous power supply for electric vehicles	60	6
32	13177	Traction and energy calculations for electric vehicles	60	6
33	13178	Design of charging equipment and electrical equipment of electric vehicles	60	6

34	13179	Design of charging facilities and electrical equipment of electric vehicles - course project	0	3
35	13180	Diagnostics and testing of electric vehicles	75	7
36	13181	Digital and microprocessor engineering in electric vehicles	60	5
37	13182	Ecological problems of electrical mobility	60	4
38	13183	Modern tendencies in the development of electric mobility	60	4
39	719	Physical Education and Sports	0	0
	721	Political Science	45	4
<i>Elective courses</i>				
40.1	707	Course in Foreign Language in Engineering	45	3
41.1	13184	Hybrid cars	60	5
41.2	13185	Electric cars with autonomous power supplies	60	5
42.1	13186	Traction and propulsion protection systems for hybrid cars	75	6
42.2	13187	Systems for controlling and protecting traction electric drive of electric vehicles	75	6
43.1	13188	Technical Operation of Electrical Systems of Hybrid Vehicles	75	6
43.2	13189	Technical operation of electrical systems of electric vehicles	75	6
44.1	13190	Practicum of servicing and repair of traction electric drive of hybrid and electric cars	45	4
44.2	13191	Practice in servicing and repairing electric drives for hybrid and electric vehicles	45	4
44.3	13192	Practice in servicing and repairing ancillary systems of hybrid and electric cars	45	4
<i>Optional courses</i>				
45.1	13193	Safety and health in the operation of hybrid cars	60	4
45.2	13194	Safety and health in the operation of electric vehicles with autonomous power	60	4
46.1	13195	Service technology for the electrical systems of hybrid cars	90	6
46.2	13196	Technology of service servicing of electrical systems of electric vehicles	90	6