

# "Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Electric Vehicles

Degree: Bachelor

Mode of study: Part 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	38	7
2	1114	Physics	45	7
3	821	Informatics	45	7
4	703	Economic History	23	4
5	702	Economics	23	4
6	1225	Turnery	0	0
6	1224	Locksmith	0	0
6	1223	Thermal Treatment	0	0
6	1221	Casting	0	0
6	1222	Welding	0	0
7	812	Mathematics part II	38	7
8	1210	Chemistry	23	3
9	715	Foreign Language - English, German, French, Russian	45	6
10	914	Applied Mechanics	38	6
11	1101	Theoretical Electrical Engineeing part I	45	8
12	815	Mathematics part III	30	6
13	1102	Theoretical Electrical Engineeing part II	30	6
14	1006	Fundamentals of Machine Design and Construction	45	6
15	1110	Electrical and Electronic Measurements	38	5
16	13197	Electrotechnical materials	30	7
17	13165	Technical and Fire Safety	23	3
18	13171	General Drive of Hybrid and Electric Vehicles	30	4
19	1309	Power Electronics	38	6
20	13172	Sensing and conversion equipment in electric vehicles	38	7
21	1303	Electrical Machines	45	7
22	1368	Electrical Machines- Course Project	0	3
23	1304	Electrical Apparatuses	45	7
24	1308	Electrical Supply	38	7
25	696	Hydraulic and Pneumatic Systems in Electric Transport	23	3
26	13129	Technically Automation Tools	45	7
27	13173	Electricity supply systems for electric vehicles	38	6
28	1307	Electrical Equipment	38	6
29	13174	Electromotive electric drive	38	6
30	13175	Electromotor electric drive - course project	0	3
31	13176	Autonomous power supply for electric vehicles	30	6
32	13177	Traction and energy calculations for electric vehicles	30	6
33	13178	Design of charging equipment and electrical equipment of electric vehicles	30	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	38	7
36	13181	Digital and microprocessor engineering in electric vehicles	30	5
37	13182	Ecological problems of electrical mobility	30	4
38	13183	Modern tendencies in the development of electric mobility	30	4
	721	Political Science	23	4
<i>Elective courses</i>				
39.1	707	Course in Foreign Language in Engineering	23	3
40.1	13184	Hybrid cars	30	5
40.2	13185	Electric cars with autonomous power supplies	30	5
41.1	13186	Traction and propulsion protection systems for hybrid cars	38	6
41.2	13187	Systems for controlling and protecting traction electric drive of electric vehicles	38	6
42.1	13188	Technical Operation of Electrical Systems of Hybrid Vehicles	38	6
42.2	13189	Technical operation of electrical systems of electric vehicles	38	6
43.1	13190	Practicum of servicing and repair of traction electric drive of hybrid and electric cars	23	4
43.2	13191	Practice in servicing and repairing electric drives for hybrid and electric vehicles	23	4
43.3	13192	Practice in servicing and repairing ancillary systems of hybrid and electric cars	23	4
<i>Optional courses</i>				
44.1	13193	Safety and health in the operation of hybrid cars	30	4
44.2	13194	Safety and health in the operation of electric vehicles with autonomous power	30	4
45.1	13195	Service technology for the electrical systems of hybrid cars	45	6
45.2	13196	Technology of service servicing of electrical systems of electric vehicles	45	6