

# "Todor Kableshkov" University of Transport

Faculty: Machinery and Construction Technologies in Transport

Programme: Railway Engineering

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	1207	Chemistry	45	4
3	715	Foreign Language - English, German, French, Russian	90	6
4	702	Economics	60	4
5	1201	Material Science and Technology	90	8
6	812	Mathematics part II	75	7
7	1114	Physics	90	7
8	821	Informatics	90	6
9	1011	Applied Geometry and Engineering Drawing I	45	3
10	906	Theoretical Mechanics part I	60	6
12	813	Mathematics part III	60	6
13	907	Theoretical Mechanics part II	60	6
14	1012	Applied Geometry and Engineering Drawing II	45	3
15	902	Strength of Materials	105	7
16	278	Heat Transfer Equipment	60	5
17	1002	Computer Drawing for Engineers	45	3
18	903	Theory of Mechanisms and Machines	60	5
19	1116	Electrical Engineering and Electronics	90	6
20	1013	Metrology and Measurement Equipment	60	4
21	908	Fluid Mechanics	60	5
22	1008	Machine Elements	105	8
23	1009	Machine Elements - make a project	0	2
25	1341	Electrical Machines, Apparatuses and Drive	45	4
26	1205	Mechanical Engineering Technologies	75	5
27	600	Internal Combustion Engines	105	8
28	690	Hydraulic and Pneumatic Drives and Equipment	60	5
29	1360	Electrical Railway Equipment	75	5
30	699	Internal Combustion Engines - make a project	0	2
31	222	Train Traction	45	4
32	201	Technical Safety and Ecology	45	4
33	279	Reliability of Vehicles	60	5
34	703	Economic History	45	3
35	280	Railway Wagons	105	7
36	190	Rail Transport Technology and Organization	60	6
37	346	Transport Infrastructure	45	5
38	262	Railway Wagons - make a project	0	4
39	245	Locomotives	105	11
40	281	Railway Equipment Testing and Diagnostics	75	10

41	282	Railway Equipment Repair	75	5
42	254	Locomotives - make a project	0	4
	1224	Locksmith	6	0
	1223	Thermal Treatment	6	0
	1225	Turnery	6	0
	719	Physical Education and Sports	0	0
	1222	Welding	6	0
	1221	Casting	21	0
<i>Elective courses</i>				
42.1	284	Brake Systems in Railway Vehicles	60	5
42.2	285	Systems for Microclimate Maintenance in Railway Equipment	60	5
43.1	692	Material Handling Equipment	60	4
43.2	283	Automotive Engineering	60	4
<i>Optional courses</i>				
44	141	Technical Operation and Traffic Safety in Railway Transport	60	4
45.1	261	Control Systems for Diesel Locomotives	90	6
45.2	1338	Structure and Control Systems of Electric Locomotives	90	6
45.3	286	Structure, Systems and Technical Control of Railway Wagons	90	6
46	223	Train Brakes	75	5
47.1	232	Diesel Locomotives Operation	75	5
47.2	1345	Operation of Electric Locomotives	75	5
47.3	236	Railway Wagon Operation	75	5