

"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	872	Mathematics	75	7
2	1207	Chemistry	45	6
3	715	Foreign Language - English, German, French, Russian	75	6
4	702	Economics	45	5
5	1201	Material Science and Technology	60	6
6	882	Applied Mathematics	75	7
7	1125	Physics	45	6
8	821	Informatics	60	6
9	906	Theoretical Mechanics part I	60	6
10	1011	Applied Geometry and Engineering Drawing I	45	5
11	1012	Applied Geometry and Engineering Drawing II	45	5
12	907	Theoretical Mechanics part II	60	5
13	902	Strength of Materials	75	5
14	278	Heat Transfer Equipment	45	5
15	1002	Computer Drawing for Engineers	45	5
16	1224	Locksmith	6	1
16	1225	Turnery	6	1
16	1223	Thermal Treatment	6	1
16	1222	Welding	6	1
16	1221	Casting	6	1
17	903	Theory of Mechanisms and Machines	60	5
18	1116	Electrical Engineering and Electronics	60	6
19	1013	Metrology and Measurement Equipment	45	4
20	908	Fluid Mechanics	45	5
21	1008	Machine Elements	75	8
22	1009	Machine Elements - make a project	0	2
23	1205	Mechanical Engineering Technologies	45	5
24	600	Internal Combustion Engines	75	8
25	699	Internal Combustion Engines - make a project	0	2
26	690	Hydraulic and Pneumatic Drives and Equipment	45	5
27	1341	Electrical Machines, Apparatuses and Drive	45	5
28	1360	Electrical Railway Equipment	45	5
29	201	Technical Safety and Ecology	45	5
30	284	Brake Systems in Railway Vehicles	60	5
31	190	Rail Transport Technology and Organization	60	5
32	279	Reliability of Vehicles	45	4
33	202	Rolling stock	75	6
34	703	Economic History	45	4

35	346	Transport Infrastructure	45	5
36	222	Train Traction	45	4
37	281	Railway Equipment Testing and Diagnostics	60	4
38	282	Railway Equipment Repair	60	5
40	719	Physical Education and Sports	0	0
<i>Elective courses</i>				
41.1	280	Railway Wagons	75	11
41.2	245	Locomotives	75	11
42.1	262	Railway Wagons - make a project	0	4
42.2	254	Locomotives - make a project	0	4
43.1	2208	Electronic systems in railway engineering	60	6
43.2	285	Systems for Microclimate Maintenance in Railway Equipment	60	6
44.1	692	Material Handling Equipment	45	4
44.2	283	Automotive Engineering	45	4
45.1	269	Alternative railway drives technique	45	4
45.2	299	High speed trains and unconventional railways	45	4
46.1	739	Specialized English language course	45	3
46.2	738	Specialized German language course	45	3
46.3	740	Specialized course in Russian	45	3
<i>Optional courses</i>				
47.1	261	Control Systems for Diesel Locomotives	75	6
47.2	1338	Structure and Control Systems of Electric Locomotives	75	6
47.3	286	Structure, Systems and Technical Control of Railway Wagons	75	6
48	141	Technical Operation and Traffic Safety in Railway Transport	60	4
49.1	232	Diesel Locomotives Operation	75	5
49.2	1345	Operation of Electric Locomotives	75	5
49.3	236	Railway Wagon Operation	75	5
50	223	Train Brakes	60	5