

# "Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Telecommunications and Signalling

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	508	Automatics and Telemechanics Theory	75	7
9	1101	Theoretical Electrical Engineering part I	75	8
10	1102	Theoretical Electrical Engineering part II	75	8
11	1110	Electrical and Electronic Measurements	75	8
12	1006	Fundamentals of Machine Design and Construction	75	7
13	501	Semiconductor Elements	60	7
14	552	Computer Systems and Architectures	75	7
15	553	Signals and Systems	60	7
16	507	Power Supply Equipment	60	7
17	503	Analogue and Digital Systems	45	5
18	502	Digital and Microprocessor Systems	75	7
19	556	Information-Managing Systems and Processes	60	6
20	597	Basics of insurance technology	60	7
21	514	Reliability and Safety Theory	45	4
22	534	Optic Technologies and Networks	60	6
23	512	Radio Communications	75	7
24	558	Computer Communications and Networks	45	5
25	560	Rolling Stock Positioning and Management	45	3
26	516	Automatic Traffic Control	75	7
27	517	Automatic Traffic Control - make a project	0	3
28	518	Design and Technology of Telecommunications and Signalling	75	6
29	520	Interlocking and Signalling Systems	75	7
30	521	Interlocking and Signalling Systems - make a project	0	3
31	523	Computer-aided Modelling and Simulation	45	4
32	522	Remote Control Systems and Management in Transport	75	7
33	564	Measurement, Control and Diagnostics of Computer and Communication Systems	60	7
34	719	Physical Education and Sports	0	0
43.1	1221	Casting	0	0
43.2	1222	Welding	0	0

43.3	1223	Thermal Treatment	0	0
43.4	1225	Turnery	0	0
43.5	1224	Locksmith	0	0
44	596	Study practice on analysis and synthesis of analog and pulse circuits and devices	0	1
<i>Elective courses</i>				
35.1	707	Course in Foreign Language in Engineering	45	3
36.1	557	Information Theory and Channel Encoding	60	5
36.2	559	Discrete Structures	60	5
37.1	550	Intelligent Systems for Security and Protection	60	6
37.2	562	Sensors and Personal Wireless Networks	60	6
38.1	526	Mobile Telecommunications	45	4
38.2	563	Fixed Networks	45	4
39.1	527	Terminal Interfaces and Protocols	45	6
39.2	565	Computer-based on-board Safety Systems	45	6
<i>Optional courses</i>				
40	591	Parametrization and diagnosis of safety equipment	45	4
41	594	Regulations for Communication and Security Equipment	45	4
42	593	Operation of Communication and Safety Equipment	75	6