

"Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Telecommunications and Signalling

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
6.1	1221	Casting	0	0
6.2	1222	Welding	0	0
6.3	1224	Locksmith	0	0
6.4	1225	Turnery	0	0
6.5	1223	Thermal Treatment	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 Engineering part I	45	8
12	815	Mathematics part III	30	6
13	1102	Theoretical Electrical Engineering part II	30	6
14	1110	Electrical and Electronic Measurements	38	5
15	1006	Fundamentals of Machine Design and Construction	45	6
16	501	Semiconductor Elements	38	7
17	552	Computer Systems and Architectures	38	7
18	553	Signals and Systems	38	7
19	554	Communication Circuits	23	4
20	508	Automatics and Telemechanics Theory	38	7
21	503	Analogue and Digital Systems	23	4
22	555	Analysis and Synthesis of Analogue and Pulse Circuits and Devices - practicum	15	1
23	502	Digital and Microprocessor Systems	38	6
24	556	Information-Managing Systems and Processes	30	5
25	557	Information Theory and Channel Encoding	30	5
26	507	Power Supply Equipment	30	6
27	514	Reliability and Safety Theory	23	3
28	534	Optic Technologies and Networks	30	5
29	512	Radio Communications	38	7
30	558	Computer Communications and Networks	23	4
31	559	Discrete Structures	30	6
32	560	Rolling Stock Positioning and Management	23	3
33	516	Automatic Traffic Control	38	7
34	517	Automatic Traffic Control - make a project	0	3

35	518	Design and Technology of Telecommunications and Signalling	38	6
36	561	Communication and Computer Terminals	38	6
37	520	Interlocking and Signalling Systems	38	6
38	521	Interlocking and Signalling Systems - make a project	0	3
39	522	Remote Control Systems and Management in Transport	30	4
40	523	Computer-aided Modelling and Simulation	23	3
41	564	Measurement, Control and Diagnostics of Computer and Communication Systems	38	7
	721	Political Science	23	4
<i>Elective courses</i>				
42.1	526	Mobile Telecommunications	30	5
42.2	562	Sensors and Personal Wireless Networks	30	5
43.1	550	Intelligent Systems for Security and Protection	30	4
43.2	563	Fixed Networks	30	4
44.1	527	Terminal Interfaces and Protocols	30	6
44.2	565	Computer-based on-board Safety Systems	30	6
<i>Optional courses</i>				
45	591	Parametrization and diagnosis of safety equipment	23	4
46	188	Regulations in Railway Transport	23	4
47	593	Operation of Communication and Safety Equipment	38	6