

"Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Telecommunications and Computer Engineering and Systems

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	1002	Computer Drawing for Engineers	23	4
5	702	Economics	23	4
6	826	Programming and Information Technologies - practicum	15	1
7	812	Mathematics part II	38	7
8	715	Foreign Language - English, German, French, Russian	45	6
9	824	Computer Technologies and Programming	38	7
10	1101	Theoretical Electrical Engineering part I	45	8
11	571	Computer System Organization - practicum	0	2
12	815	Mathematics part III	30	6
13	1102	Theoretical Electrical Engineering part II	30	6
14	566	Algorithms Analysis and Synthesis	30	4
15	1110	Electrical and Electronic Measurements	38	5
16	567	Databases	23	3
17	501	Semiconductor Elements	38	6
18	552	Computer Systems and Architectures	38	7
19	553	Signals and Systems	38	7
20	568	Digital and Analogue Circuit Design	38	6
21	570	Operating Systems	38	6
22	569	Technical Resources for Management and Control	23	3
23	555	Analysis and Synthesis of Analogue and Pulse Circuits and Devices - practicum	15	1
24	572	Microcontrollers and Microprocessor Systems	38	7
25	573	Object-Oriented Programming and Web Design	23	4
26	556	Information-Managing Systems and Processes	30	5
27	557	Information Theory and Channel Encoding	30	5
28	583	Reliability and Quality of Software	23	4
29	534	Optic Technologies and Networks	30	5
30	512	Radio Communications	38	7
31	558	Computer Communications and Networks	23	4
32	559	Discrete Structures	30	6
33	584	Risk Management Systems for Technological Processes	38	7
34	585	Project in Risk Management Systems for Technological Processes	0	3
35	561	Communication and Computer Terminals	38	6

36	586	Design of Communication and Computer Engineering	23	3
37	587	Design of Communication and Computer Engineering - make a project	0	3
38	588	Fault-tolerance computer systems	38	6
39	589	Modeling and Simulation of Communication and Computer Systems	23	3
40	564	Measurement, Control and Diagnostics of Computer and Communication Systems	38	7
41	590	Computer Systems for Monitoring and Control in Transport	38	7
<i>Elective courses</i>				
42	707	Course in Foreign Language in Engineering	23	3
43.1	526	Mobile Telecommunications	30	5
43.2	562	Sensors and Personal Wireless Networks	30	5
44.1	550	Intelligent Systems for Security and Protection	30	4
44.2	563	Fixed Networks	30	4
45.1	527	Terminal Interfaces and Protocols	30	6
45.2	565	Computer-based on-board Safety Systems	30	6
<i>Optional courses</i>				
46	591	Parametrization and diagnosis of safety equipment	23	4
47	188	Regulations in Railway Transport	23	4
48	593	Operation of Communication and Safety Equipment	38	6
49	592	Safety Management Systems of Safety Processes	23	4