

"Todor Kableshkov" University of Transport

Faculty: Telecommunications and Electrical Equipment in Transport

Programme: Telecommunications and Computer Engineering and Systems

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	1017	Computer Drawing for Engineers	45	4
5	702	Economics	45	4
6	881	Applied Mathematics	75	8
7	715	Foreign Language - English, German, French, Russian	75	7
8	824	Computer Technologies and Programming	75	6
9	1101	Theoretical Electrical Engineering part I	75	8
10	1102	Theoretical Electrical Engineering part II	75	8
11	566	Algorithms Analysis and Synthesis	45	3
12	1110	Electrical and Electronic Measurements	75	8
13	567	Databases	45	4
14	501	Semiconductor Elements	60	7
15	552	Computer Systems and Architectures	75	7
16	553	Signals and Systems	60	7
17	568	Digital and Analogue Circuit Design	60	6
18	570	Operating Systems	60	6
19	569	Technical Resources for Management and Control	45	3
20	572	Microcontrollers and Microprocessor Systems	75	8
21	573	Object-Oriented Programming and Web Design	45	5
22	556	Information-Managing Systems and Processes	60	6
23	583	Reliability and Quality of Software	45	5
24	534	Optic Technologies and Networks	60	6
25	512	Radio Communications	75	7
26	558	Computer Communications and Networks	45	5
27	584	Risk Management Systems for Technological Processes	75	7
28	585	Project in Risk Management Systems for Technological Processes	0	3
29	589	Modeling and Simulation of Communication and Computer Systems	45	4
30	586	Design of Communication and Computer Engineering	60	6
31	587	Design of Communication and Computer Engineering - make a project	0	3
32	588	Fault-tolerance computer systems	75	7
33	564	Measurement, Control and Diagnostics of Computer and Communication Systems	60	7
34	590	Computer Systems for Monitoring and Control in Transport	75	7

35	719	Physical Education and Sports	0	0
46	826	Programming and Information Technologies - practicum	0	1
47	571	Computer System Organization - practicum	0	1
48	596	Study practice on analysis and synthesis of analog and pulse circuits and devices	0	1
<i>Elective courses</i>				
36.1	707	Course in Foreign Language in Engineering	45	3
37.1	557	Information Theory and Channel Encoding	60	5
37.2	559	Discrete Structures	60	5
38.1	550	Intelligent Systems for Security and Protection	60	6
38.2	562	Sensors and Personal Wireless Networks	60	6
39.1	526	Mobile Telecommunications	45	4
39.2	563	Fixed Networks	45	4
40.1	527	Terminal Interfaces and Protocols	45	6
40.2	565	Computer-based on-board Safety Systems	45	5
<i>Optional courses</i>				
41	703	Economic History	45	4
42	591	Parametrization and diagnosis of safety equipment	45	4
43	594	Regulations for Communication and Security Equipment	45	4
44	593	Operation of Communication and Safety Equipment	75	6
45	592	Safety Management Systems of Safety Processes	45	4