

"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 | 871 | Mathematics | 38 | 7 |
| 2 | 1114 | Physics | 38 | 7 |
| 3 | 821 | Informatics | 30 | 7 |
| 4 | 1017 | Computer Drawing for Engineers | 23 | 4 |
| 5 | 702 | Economics | 23 | 4 |
| 6 | 881 | Applied Mathematics | 38 | 8 |
| 7 | 715 | Foreign Language - English, German, French, Russian | 38 | 7 |
| 8 | 824 | Computer Technologies and Programming | 38 | 6 |
| 9 | 1101 | Theoretical Electrical Engineering part I | 38 | 8 |
| 10 | 1102 | Theoretical Electrical Engineering part II | 38 | 8 |
| 11 | 566 | Algorithms Analysis and Synthesis | 23 | 3 |
| 12 | 1110 | Electrical and Electronic Measurements | 38 | 8 |
| 13 | 567 | Databases | 23 | 4 |
| 14 | 501 | Semiconductor Elements | 31 | 7 |
| 15 | 552 | Computer Systems and Architectures | 38 | 7 |
| 16 | 553 | Signals and Systems | 31 | 7 |
| 17 | 568 | Digital and Analogue Circuit Design | 31 | 6 |
| 18 | 570 | Operating Systems | 31 | 6 |
| 19 | 569 | Technical Resources for Management and Control | 23 | 3 |
| 20 | 572 | Microcontrollers and Microprocessor Systems | 38 | 8 |
| 21 | 573 | Object-Oriented Programming and Web Design | 23 | 5 |
| 22 | 556 | Information-Managing Systems and Processes | 31 | 6 |
| 23 | 583 | Reliability and Quality of Software | 23 | 5 |
| 24 | 534 | Optic Technologies and Networks | 31 | 6 |
| 25 | 512 | Radio Communications | 38 | 7 |
| 26 | 558 | Computer Communications and Networks | 23 | 5 |
| 27 | 584 | Risk Management Systems for Technological Processes | 38 | 7 |
| 28 | 585 | Project in Risk Management Systems for Technological Processes | 0 | 3 |
| 29 | 589 | Modeling and Simulation of Communication and Computer Systems | 23 | 4 |
| 30 | 586 | Design of Communication and Computer Engineering | 31 | 6 |
| 31 | 587 | Design of Communication and Computer Engineering - make a project | 0 | 3 |
| 32 | 588 | Fault-tolerance computer systems | 38 | 7 |
| 33 | 564 | Measurement, Control and Diagnostics of Computer and Communication Systems | 31 | 7 |
| 34 | 590 | Computer Systems for Monitoring and Control in Transport | 38 | 7 |

| | | | | |
|-------------------------|-----|--|----|---|
| 39.1 | 527 | Terminal Interfaces and Protocols | 23 | 6 |
| 45 | 826 | Programming and Information Technologies - practicum | 15 | 1 |
| 46 | 571 | Computer System Organization - practicum | 15 | 1 |
| 47 | 596 | Study practice on analysis and synthesis of analog and pulse circuits and devices | 23 | 1 |
| <i>Elective courses</i> | | | | |
| 35.1 | 707 | Course in Foreign Language in Engineering | 23 | 3 |
| 36.1 | 557 | Information Theory and Channel Encoding | 31 | 5 |
| 36.2 | 559 | Discrete Structures | 31 | 5 |
| 37.1 | 550 | Intelligent Systems for Security and Protection | 31 | 6 |
| 37.2 | 562 | Sensors and Personal Wireless Networks | 31 | 6 |
| 38.1 | 526 | Mobile Telecommunications | 23 | 4 |
| 38.2 | 563 | Fixed Networks | 23 | 4 |
| 39.2 | 565 | Computer-based on-board Safety Systems | 23 | 6 |
| <i>Optional courses</i> | | | | |
| 40 | 703 | Economic History | 23 | 4 |
| 41 | 591 | Parametrization and diagnosis of safety equipment | 23 | 4 |
| 42 | 594 | Regulations for Communication and Security Equipment | 23 | 4 |
| 43 | 593 | Operation of Communication and Safety Equipment | 38 | 6 |
| 44 | 592 | Safety Management Systems of Safety Processes | 23 | 4 |