Study plan

Name of study plan: Bachelor TET-DOS Full-Time from 2023/24

Faculty/Institute/Others: Department: Branch of study guaranteed by the department: Welcome page Garantor of the study branch: Program of study: Technology in Transportation and Telecommunications Type of study: Bachelor full-time Required credits: 180 Elective courses credits: 0 Sum of credits in the plan: 180 Note on the plan:

Name of the block: Compulsory courses Minimal number of credits of the block: 158 The role of the block: Z

Code of the group: 1S-BP-TET-22/23-DC Name of the group: 1st Sem. Bachelor Full-Time TET from 2022/23 Requirement credits in the group: In this group you have to gain 30 credits Requirement courses in the group: In this group you have to complete 11 courses Credits in the group: 30 Note on the group:

Note on the gr	oup.					
Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611CAL1	Calculus 1 Romana Zibnerová Ond ej Navrátil (Gar.)	Z,ZK	7	2P+4C+22B	Z	Z
611LA	Linear Algebra Romana Zibnerová Romana Zibnerová Martina Be vá ová (Gar.)	Z,ZK	3	2P+1C+10B	Z	Z
612ZYDI	Introduction to Transportation Engineering	Z,ZK	2	1P+1C	Z	Z
618MTY	Materials Science and Engineering Vít Malinovský Jaroslav Valach (Gar.)	Z,ZK	3	2P+1C+10B	Z	Z
611GIE	Geometry Vít Malinovský Šárka Vorá ová (Gar.)	KZ	3	2P+2C+12B	Z	Z
614ASD	Algorithm and Data Structures Jan Mejst ík	KZ	3	0P+2C+8B	Z	Z
614KSP	Constructing with Computer Aid	KZ	2	0P+2C+8B	Z	Z
618TED	Technical Documentation Vít Malinovský Jitka ezní ková (Gar.)	KZ	2	1P+1C+8B	Z	Z
615DPLG	Transportation Psychology	Z	2	2P+0C+6B	Z	Z
616UDOP	Introduction into Vehicles Zuzana Radová Petr Bouchner (Gar.)	Z	2	2P+0C+8B	Z	Z
TV-1	Physical Education	Z	1		Z	Z

Characteristics of the courses of this group of Study Plan: Code=1S-BP-TET-22/23-DC Name=1st Sem. Bachelor Full-Time TET from 2022/23

611CAL1	Calculus 1	Z,ZK	7				
Sequence of real number	ers and its limit. Basic properties of mappings. Function of one real variable, its limit and derivative. Indefinite integral, Newton in	tegral, Riemann ii	ntegral, improper				
Riemann integral. First-	Riemann integral. First-order differential equations, linear differential equations.						
611LA	Linear Algebra	Z,ZK	3				
Vector spaces (linear co	mbinations, linear independence, dimension, basis, coordinates). Matrices and operations. Systems of linear equations and	their solvability. D	eterminants and				
their applications. Scala	r product. Similarity of matrices (eigenvalues and eigenvectors). Quadratic forms and their classification.						
612ZYDI	Introduction to Transportation Engineering	Z,ZK	2				
Role of transportation ir	and-use planning. Basic terms in transportation engineering. Traffic survey and traffic prognosis. Introduction to topic of road	s, public mass tra	nsport. Negative				
impacts of transportation	n to environment and safety.						
618MTY	Materials Science and Engineering	Z,ZK	3				
Basic course of materials science and engineering explains mechanical properties of structural materials based on their bonding forces and microstructure. However the main attention							
is paid to metals as the most important engineering materials, also other major classes of materials are presented, namely ceramics, polymers and composites. Attention is also paid							
to degradation process	o degradation processes in materials, to defectoscopy and to main mechanical tests.						

611GIE	Geometry	KZ	3			
Orthographic and oblique	ue projections, linear perspective. Topographic surfaces and their orthogonal projection. Differential geometry of curves - para	meterization, arc	of the curve,			
torsion and curvature, F	Frenet's trihedron. Kinematics - a curve as a trajectory of the motion, the velocity and acceleration of a particle moving on a c	urved path.				
614ASD	Algorithm and Data Structures	KZ	3			
Students will be familiar	ized with selected basic and derived data structures, algorithms, their properties and their design procedure. Students will ana	lyze problems, pro	pose theoretical			
solutions to the set task	and the resulting algorithm write by means of flowcharts, practice in reading algorithms recorded by means of the flowchart	and use the basic	s of Boolean			
algebra with forming the	algebra with forming the conditions for the algorithms.					
614KSP	Constructing with Computer Aid	KZ	2			
"CAD systems" term de	termination. CAD role in projecting system model. Existing CAD systems on Czech market. Project creation, basic common	work rules in grap	hic applications			
and CA systems. Co-or	dinated systems, CAD environment skill (basics of constructing, dimensioning, modifications, user interfaces, projecting poss	ibilites, AutoCAD	environment			
profiles, drawings with r	raster foundaments).					
618TED	Technical Documentation	KZ	2			
Technical standards, int	ernational standardization, technical drawings, representation of technical objects, technical diagrams and charts, dimensior	al and geometric	al accuracy,			
arrangement of drawing	g sheets.					
615DPLG	Transportation Psychology	Z	2			
Subject of psychology a	, ind its basic concepts. Information intake, decision-making and behaviour. Performance. Engineering psychology and vehicle $lpha$	onstruction. Psych	ological aspects			
of travel route and traffi	c conditions, accidents and traffic incidents. Selection and training of the staff. Work and leisure. Age as a factor in transport of	operation.				
616UDOP	Introduction into Vehicles	Z	2			
Vehicles and transportation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water transport. Alternative means						
of transport. Lifting equipment and conveyors. Legislation.						
TV-1	Physical Education	Z	1			

Code of the group: 2S-BP-TET-22/22-DC

Name of the group: 2nd Sem. Bachelor Full-Time TET from 2022/23 Requirement credits in the group: In this group you have to gain 30 credits Requirement courses in the group: In this group you have to complete 9 courses Credits in the group: 30 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611CAL2	Calculus 2 Romana Zibnerová, Ond ej Navrátil, Magdalena Hykšová, Olga Vraštilová, Tomáš Tasák Romana Zibnerová Ond ej Navrátil (Gar.)	Z,ZK	5	2P+3C+20E	6 L	Z
611STAT	Statistics Pavel Provinský, Evženie Uglickich, Pavla Pecherková, Michal Matowicki Pavla Pecherková Pavel Provinský (Gar.)	Z,ZK	4	2P+2C+12E	L	Z
612ZTS	Railway Lines and Stations Tomáš Javo ík, Ond ej Trešl	Z,ZK	4	2P+2C+10E	6 L	Z
618SAT	Structural Analysis Tomáš Doktor Daniel Kytý (Gar.)	Z,ZK	4	2P+2C+14E	L	Z
620SYSA	Systems Analysis Petr Bureš, Eva Haj iarová, Ji í R ži ka Zuzana B linová (Gar.)	Z,ZK	5	2P+2C+14E	L	Z
614PRG	Programming Libor Žídek	KZ	2	0P+2C+8E	6 L	Z
617TEDL	Transport Technology and Logistics Michal Drábek Vít Janoš (Gar.)	KZ	3	2P+1C	L	Z
621ZALD	Basics of Air Transport Jakub Hospodka	KZ	2	0P+2C+8E	L	Z
TV-2	Physical Education	Z	1		L	Z

Characteristics of the courses of this group of Study Plan: Code=2S-BP-TET-22/22-DC Name=2nd Sem. Bachelor Full-Time TET from 2022/23

611CAL2	Calculus 2	Z,ZK	5					
Linear differential equat	ions and their systems, differential calculus of functions of several real variables. Riemann integral in Rn. Line and surface in	tegrals.						
611STAT	Statistics	Z,ZK	4					
Definition of probability,	random variable and its description, known distributions, random vector, function of random variable. Methods of point estimation	on. Testing of stati	stical hypothesis.					
Regression and correlation, linear regression, correlation coefficient, coefficient of determination, the general linear model, statistical inference in linear regression, analysis of variance,								
multiple regression, the	use of matrices in regression.							
612ZTS	612ZTS Railway Lines and Stations Z,ZK 4							
Rail transport. Railway	track geometry parameters. Route layout of railway lines. Railway line construction - railway substructure and superstructure.	Spatial layout of	railway lines.					
Railway control system	s in relation to infrastructure. Operating and carriage points. Railway lines net and category. Traction in rail transport.							
618SAT	Structural Analysis	Z,ZK	4					
General system of force	s in plane and space. Calculation of reactions of bodies and structures. Assessment of internal forces on statically determina	ate beams and sir	nple girders.					
Principle of virtual work.	Kinematic method for calculation of reactions of statically determinate systems. Determination of axial forces in truss constructic	ons. Cross-section	al characteristics					
of planar shapes. Fiber	of planar shapes. Fiber polygons and chains.							
620SYSA	620SYSA Systems Analysis Z,ZK 5							
Introduction to system sciences, system viewpoint, terminology, typical system analysis tasks, system identification, system interface and interface tasks, processes, system behaviour								
and its analysis, strong	and its analysis, strong functions and processes, genetic code, system identity, system architecture. Tools for system analysis - Petri nets, decision tables, algorithms for structural							
tasks. Soft and hard sys	sks. Soft and hard systems, methods for soft system analysis.							

614PRG	Programming	KZ	2				
Algorithm development	methods of structured programming, high-level programming languages, basics of C programming languages (types, variab	les, conditions, cy	/cles, arrays,				
functions), programming	functions), programming techniques, complexity.						
617TEDL	Transport Technology and Logistics	KZ	3				
Basic terms in transpor	technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight t	ransport, organis	ation of traffic in				
each transport modus,	technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication u	ising various trans	sport modus.				
621ZALD	Basics of Air Transport	KZ	2				
History, definitions, term	inology, basic rules. VFR/IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navigat	ion. Weight, balan	ce, performance.				
Flight planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic management, ground handling, security. Air crew.							
Airlines and economics. Space technologies.							
TV-2	Physical Education	Z	1				

Code of the group: 3S-BP-TET-23/24-DC Name of the group: 3rd Sem. Bachelor Full-Time TET from 2023/24 Requirement credits in the group: In this group you have to gain 30 credits Requirement courses in the group: In this group you have to complete 8 courses Credits in the group: 30 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611FYZ	Physics Goce Chadzitaskos Zuzana Malá (Gar.)	Z,ZK	5	2P+2C+18B	Z	Z
612MDE	Transport Models and Transport Excesses Josef Kocourek, Tomáš Pad lek Josef Kocourek (Gar.)	Z,ZK	3	2P+1C+8B	Z	Z
617TGA	Graph Theory and its Applications in Transport	Z,ZK	4	2P+2C+12B	Z	Z
618PZP	Elasticity and Strength Tomáš Doktor Ond ej Jiroušek (Gar.)	Z,ZK	3	2P+1C+10B	Z	Z
620UITS	Introduction to Intelligent Transport Systems Vladimír Faltus Pavel Hrubeš (Gar.)	Z,ZK	7	3P+2C+20B	Z	Z
612PPOK	Designing Roads, Highways and Motorways Josef Kocourek, Tomáš Pad lek, Petr Kumpošt	KZ	3	1P+2C+10B	Z	Z
614DATS	Database Systems Ond ej Smíšek Jana Kaliková (Gar.)	KZ	2	1P+1C+10B	Z	Z
615JZ1A	Foreign Language - English 1 Jan Feit	Z	3	0P+4C+10B	Z	Z

Characteristics of the courses of this group of Study Plan: Code=3S-BP-TET-23/24-DC Name=3rd Sem. Bachelor Full-Time TET from 2023/24

611FYZ	Physics	Z,ZK	5			
Kinematics, dynamics,	Newton's laws, force fields, mechanics of continuum, thermodynamics, introduction to electrostatics and electric current.					
612MDE	Transport Models and Transport Excesses	Z,ZK	3			
Parameters of the traffic	flow and methods for their measurement. Models of the traffic flow, communications load, line and urban systems. Theory o	f queues, shock v	vaves. Quality of			
transport and its assess	ment. Statistical characteristics of transport. Transport excesses, their analysis, the causes, identify and minimize the consec	quences. Improvir	ng of transport			
safety and fluency.						
617TGA	Graph Theory and its Applications in Transport	Z,ZK	4			
Basic terms of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in other scientific disciplines.						
618PZP	Elasticity and Strength	Z,ZK	3			
Tension and compression	n. Bending of beam. Shear stress during bending of beam. Design and analysis of cross section of beam. Design of riveted, b	olted and welded	joint of structure.			
Analysis of deflection c	urve of beam. Torsion of circle cross section. Combined loading. Stability of compressed bar and buckling. Beam on elastic fo	undation. Strengt	h analysis.			
620UITS	Introduction to Intelligent Transport Systems	Z,ZK	7			
Terminology and legisla	tive framework telematics systems and their architecture. Telematics systems in practice and their operation. Fundamentals of in	nformation and tel	ecommunication			
systems for ITS. Princip	les and technical support measurement of traffic data, localization and navigation. Practical work with traffic data. Real example	oles of possible a	oplications of the			
principles of ITS.						
612PPOK	Designing Roads, Highways and Motorways	KZ	3			
Definition, types, owner	ship, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standa	ard speed. Route	in rural areas.			
Range of vision for stop	ping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. S	afety device. Cros	ssings, junctions,			
intersections.						
614DATS	Database Systems	KZ	2			
Basic concepts of datab	ase systems, conceptual model, relational data model, the principles of normal forms, relational database design, security a	nd integrity of dat	a, database			
queries, relational algeb	ora, SQL language, client / server, multilayer architectures, distributed database systems. Access to data via the WWW.					
615JZ1A	Foreign Language - English 1	Z	3			
Grammatical structures	and style. Selection of conversation topics relating to transportation sciences. Extending vocabulary, developing perceptive and	communicative s	kills. Elementary			
stylistics forms. Oral and	d written presentation of original research. Academic text principles and reading comprehension. Principles of rhetoric.					

Code of the group: 4S-BP-DOS-23/24-DC

Name of the group: 4th Sem. Bachelor Full-Time TET-DOS from 2023/24 Requirement credits in the group: In this group you have to gain 16 credits

Requirement courses in the group: In this group you have to complete 4 courses Credits in the group: 16 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611MSP	Modeling of Systems and Processes Jana Kuklová, Bohumil Ková Bohumil Ková (Gar.)	Z,ZK	4	2P+2C+12B	L	Z
616DOKY	Vehicle Technology Josef Mík, Josef Svoboda, P emysl Toman Josef Mík (Gar.)	Z,ZK	5	2P+2C	L	Z
618KIDY	Kinematics and Dynamics Vít Malinovský, Tomáš Fíla Tomáš Fíla (Gar.)	Z,ZK	4	2P+2C	L	Z
615JZ2A	Foreign Language - English 2 Jan Feit, Karolina Beauxisová, V ra Pastorková	Z,ZK	3	0P+4C+10B	L	Z

Characteristics of the courses of this group of Study Plan: Code=4S-BP-DOS-23/24-DC Name=4th Sem. Bachelor Full-Time TET-DOS from 2023/24

611MSP	Modeling of Systems and Processes	Z,ZK	4				
System and subsystem,	external and internal system description, continuous and discrete system, mathematics as a tool, examples of formulation of dif	ferential and diffe	rential equations.				
Linear and nonlinear sy	stem, stationary and non-stationary system, causality. Convolutional integral. Laplace and Z transformations. Transfer functio	n. Stability of LTI	systems.				
Discretization of continu	Jous systems. System interconnection.						
616DOKY	616DOKY Vehicle Technology Z,ZK 5						
Technical nomenclature	in transportation technology. Vehicle in legislation. Design. Operation. Influence on environment. Vehicle and ecology. Tractio	n engine characte	eristics -				
combustion engines, el	ectric engines, change of energy principles. Powertrain construction. Power transmission. Brake systems.						
618KIDY	Kinematics and Dynamics	Z,ZK	4				
Friction. Motion along a	line and a curve. Kinematics of rigid body. Kinematics of the point mass and the system of mass points. Dynamics of a mass p	oint and a system	n of mass points,				
equation of motion. Met	hod of Newton. D'Alembert principle. Free and forced vibration with one degree of freedom. Viscous damping. Impact theory.	Introduction to th	e solution of				
vibration with two degree	es of freedom.						
615JZ2A	615JZ2A Foreign Language - English 2 Z,ZK 3						
Grammatical structures and style. Selection of conversation topics relating to transportation sciences. Extending vocabulary, developing perceptive and communicative skills. Elementary							
stylistics forms. Oral and written presentation of original research. Academic text principles and reading comprehension. Principles of rhetoric.							

Code of the group: 4S-BP-DOS-V1-23/24-D

Name of the group: 4th Sem. Bachelor Full-Time TET-DOS 1st alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 4 credits

Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 4

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611EMOP	Electromagnetic Field and Optics Kurt Fišer Kurt Fišer Kurt Fišer (Gar.)	Z,ZK	4	2P+2C	L	Z
612SDK	Highways, Motorways and Intersections Josef Kocourek, Tomáš Pad lek, Petr Kumpošt Josef Kocourek (Gar.)	Z,ZK	4	2P+2C	L	Z

Characteristics of the courses of this group of Study Plan: Code=4S-BP-DOS-V1-23/24-D Name=4th Sem. Bachelor Full-Time TET-DOS 1st alternative subject from 2023/24

611EMOP	Electromagnetic Field and Optics	Z,ZK	4			
Electric field. Electric cu	Electric field. Electric current. Magnetic field. Electromagnetic field. Optics. Basics of solid-state physics.					
612SDK	Highways, Motorways and Intersections	Z,ZK	4			
Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic service. Design elements						
of crossroads and intersections. Crossroads. Roundabouts. Intersections. Special types of junctions. Capacity of crossroads and intersections. Structure of pavement of roads and						
motorways. Road engineering structures. Assessment of route alternatives.						

Code of the group: 4S-BP-DOS-V2-23/24-D

Name of the group: 4th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24
Requirement credits in the group: In this group you have to gain 3 credits
Requirement courses in the group: In this group you have to complete 1 course
Credits in the group: 3
Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
611MDSD	Collecting and Processing of Traffic Data Michal Matowicki, Petr Bureš, Ond ej P ibyl Ond ej P ibyl (Gar.)	KZ	3	2P+0C	L	Z
612PUSS	Organization Disposition of Railway Stations	KZ	3	2P+0C	L	Z

Characteristics of the courses of this group of Study Plan: Code=4S-BP-DOS-V2-23/24-D Name=4th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24

Collecting and Processing of Traffic Data	KZ	3			
Basic principles of traffic detection and data collection, specific problems of the field of traffic data. Data preprocessing and analysis for use in additional applications.					
Organization Disposition of Railway Stations	KZ	3			
Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone stations. Formation yards.					
Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic railway network.					
	e detection and data collection, specific problems of the field of traffic data. Data preprocessing and analysis for use in additi Organization Disposition of Railway Stations senger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zo	e detection and data collection, specific problems of the field of traffic data. Data preprocessing and analysis for use in additional applications. Organization Disposition of Railway Stations KZ senger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone stations. Form			

Code of the group: 4S-BP-DOS-V3-23/24-D

Name of the group: 4th Sem. Bachelor Full-Time TET-DOS 3rd alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 3 credits

Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 3

Note on the group.

Note of the group.						
Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
614PODP	Computer Aid of Transportation Projecting Drahomír Schmidt	KZ	3	0P+2C	L	Z
618MECK	Mechanics of Constructions Vít Malinovský, Petr Koudelka Petr Koudelka (Gar.)	KZ	3	2P+0C	L	Z

Characteristics of the courses of this group of Study Plan: Code=4S-BP-DOS-V3-23/24-D Name=4th Sem. Bachelor Full-Time TET-DOS 3rd alternative subject from 2023/24

614PODP	Computer Aid of Transportation Projecting	KZ	3				
Overview of CAx applic	ation for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting,	data exchange).	Advanced blocks				
modification (attributes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition curve, cross-and longitudinal							
section). Basics of 3D n	section). Basics of 3D modelling.						
618MECK	Mechanics of Constructions	KZ	3				
Energetic solution of elastic beam. Solution of statically indeterminate systems - force and deformation method. Stiffness and compliance matrix of a system. Finite difference method.							
History and fundamenta	History and fundamentals of structural design. Characteristics of steel, design of steel structures. Introduction to mathematical theory of elasticity in 3D.						

Code of the group: 5S-BP-DOS-23/24-DC

Name of the group: 5th Sem. Bachelor Full-Time TET-DOS from 2023/24 Requirement credits in the group: In this group you have to gain 10 credits Requirement courses in the group: In this group you have to complete 2 courses Credits in the group: 10

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
612ZELP	Railway Operation Tomáš Javo ík	Z,ZK	4	2P+2C	Z	z
622DON	Traffic Accidents Michal Frydrýn, Tomáš Mi unek, Luboš Nouzovský, Tomáš Kohout Luboš Nouzovský Tomáš Mi unek (Gar.)	Z,ZK	6	3P+2C	Z	Z

Characteristics of the courses of this group of Study Plan: Code=5S-BP-DOS-23/24-DC Name=5th Sem. Bachelor Full-Time TET-DOS from 2023/24

612ZELP	Railway Operation	Z,ZK	4		
Legislation in railway tra	nsport. Railway vehicles. Railway signals and signal devices. Railway traffic organisation and operation. Simplified railway tra	affic operation. Rai	ilway vehicles		
rakes. Railway vehicles marking. Operation intervals. Theoretical graph of train running.					
622DON	Traffic Accidents	Z,ZK	6		
Introduction to Road Ac	cidents and Forensic Expertise; Rail, Water and Air Accidents; Road Accident Documentation and Documentation Technolog	y; Accident Data R	Recorders - EDR		
Systems; Road Acciden	Systems; Road Accident Trace Analysis and Fake Accidents; Simulation Programmes for Road Accident Analysis; Pedestrian and Cyclist Accidents; Vehicle technologies and systems				
and autonomous vehicles; Safe road layout and collision diagrams; Not giving right of way; Technical defects of vehicles; Restraints - passive road safety; Accidents at level crossings;					
Prevention (traffic educa	revention (traffic education, awareness, repression)				

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
612DOSI	Traffic Surveys and Simulations Petr Kumpošt, Petr Richter Petr Kumpošt (Gar.)	Z,ZK	3	1P+2C	Z	Z
618DYKS	Dynamics of Structures and Systems Ond ej Jiroušek Stanislav Hra ov (Gar.)	Z,ZK	3	2P+1C	Z	Z

Characteristics of the courses of this group of Study Plan: Code=5S-BP-DOS-V1-23/24-D Name=5th Sem. Bachelor Full-Time TET-DOS 1st alternative subject from 2023/24

612DOSI	Traffic Surveys and Simulations	Z,ZK	3				
Ways of data collection	in road transport. Traffic surveys. Automatic traffic counting. Preparation and implementation of traffic survey. Description of i	ndividual approac	hes focused on				
practical examples from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic models. Traffic model design							
procedure, calibration. Processing of a simple transport model based on real data.							
618DYKS	Dynamics of Structures and Systems	Z,ZK	3				
Vibration of systems with multiple degrees of freedom. Natural modes and natural frequencies. Method of stiffness constants, method of elastic constants, other numerical methods.							
Systems with continuously distributed mass. Matrix form of equations of vibration. Finite element method in dynamics of structures. Solving vibrations by superposition of natural modes.							
Subspace iteration method	Subspace iteration methods. Introduction to nonlinear vibrations.						

Code of the group: 5S-BP-DOS-V2-23/24-D

Name of the group: 5th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 5 credits Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 5

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
612MKOD	City Rail Transport Ond ej Trešl	Z,ZK	5	2P+1C	Z	Z
616DYJV	Vehicle Dynamics Josef Mík, Josef Svoboda, P emysl Toman Josef Mík (Gar.)	Z,ZK	5	2P+1C	Z	Z

Characteristics of the courses of this group of Study Plan: Code=5S-BP-DOS-V2-23/24-D Name=5th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24

612MKOD	City Rail Transport	Z,ZK	5			
City and suburban rail to	ansport. Tram lines layout and city roads. Tram track geometry parameters. Tram track superstructure. Turnouts and other co	nstruction of tram	lines. Tram			
stops and turn space. Underground and its basic characteristics. Underground nets in the world and undeground history in Prague. Underground track geometry parameters. Underground						
track superstructure and	track superstructure and substructure. Underground stations. Suburban rail transport.					
616DYJV	Vehicle Dynamics	Z,ZK	5			
Application of mechanics. Wheel and axle suspension mechanism. Wheel to road positioning characteristics. Wheel - road contact. Skid and its characteristics. Longitudinal dynamics,						
acceleration and deceleration. Vertical dynamics, spring suspension, driving characteristics. Directional dynamics, gyroscopical characteristics. Driving stability conditions. Aerodynamic						
forces. Driving and feed	back. ABS, ESP.					

Code of the group: 5S-BP-DOS-V3-23/24-D

Name of the group: 5th Sem. Bachelor Full-Time TET-DOS 3rd alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 3 credits Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 3 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
612POSD	Assessment of Transport Structures Tomáš Javo ík, Kristýna Neubergová Kristýna Neubergová (Gar.)	KZ	3	2P+0C	Z	Z

618NUMM Numerical Methods in Mechanics Ond ej Jiroušek Ond ej Jiroušek (Gar.)	KZ	3	2P+0C	Z	Z
--	----	---	-------	---	---

Characteristics of the courses of this group of Study Plan: Code=5S-BP-DOS-V3-23/24-D Name=5th Sem. Bachelor Full-Time TET-DOS 3rd alternative subject from 2023/24

612POSD	Assessment of Transport Structures	KZ	3						
EIA process - historical	EIA process - historical context, impact and variants, analysis of individual phases of EIA process, SEA, legislative framework in the Czech Republic, EU directives, implementation								
EU directives, public par	EU directives, public participation, process in practice. Methods of assessing the effects of transport structures on the environment. SWOT analysis. Multicriteria methods for assessment								
of transport structures,	TUKP method. Risk analysis. Landscape.								
618NUMM	Numerical Methods in Mechanics	KZ	3						
Basics of the most used numerical methods in structural mechanics. Central difference method, finite element method, boundary element method. Time and spatial discretization									
schemes. Finite element method - derivation of the basic equations. Stiffness matrix, mass matrix, damping matrix at element level and structural level. Methods for solving systems									
of algebraic equations. Numerical integration									

Code of the group: 6S-BP-DOS-23/24-DC

Name of the group: 6th Sem. Bachelor Full-Time TET-DOS from 2023/24 Requirement credits in the group: In this group you have to gain 14 credits Requirement courses in the group: In this group you have to complete 3 courses Credits in the group: 14 Note on the group:

Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their Code Completion Credits Scope Semester Role members) Tutors, authors and guarantors (gar.) **Urban Road Traffic and Design** 612PRMK Z,ZK 5 2P+2C L Ζ Josef Kocourek, Tomáš Pad lek Josef Kocourek (Gar.) **Public Transport** 612VHD Z,ZK 5 3P+2C Ζ Jan Kruntoráo Measurement Methods and Technology in Transportation 622METD ΖK 4 2P+2C L 7 Drahomír Schmidt, Michal Frydrýn, Luboš Nouzovský, Zden k Svatý Luboš Nouzovský Drahomír Schmidt (Gar.)

Characteristics of the courses of this group of Study Plan: Code=6S-BP-DOS-23/24-DC Name=6th Sem. Bachelor Full-Time TET-DOS from 2023/24

612PRMK	Urban Road Traffic and Design	Z,ZK	5						
Composition of urban roa	Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proposal, roundabouts, calmin								
of traffic, precaution for b	lind & partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport.								
612VHD	Public Transport	Z,ZK	5						
Importance of public tran	sport, transport research, evaluation, planning of lines routes and territory operation, planning of operation parameters, pre	paration of opera	tion, network						
conceptions, operation-te	echnology and operation-economically conditions of planning of operation conceptions, planning of operation conception, pla	ining and realisati	ion of timetables,						
prepare of infrastrukture	(route, stops), preference of public transport, financing.								
622METD	Measurement Methods and Technology in Transportation	ZK	4						
Measurement methods in transport, their meaning and use. Geodetic basics in Czechia. Angular, length and height measurements. Principles of mapping, accuracy and errors of									
geodetic measurements. Surveying and setting out. Challenges of localization, navigation and Global Navigation Satellite Systems. Laser scanning (terrestrial, mobile, UAV). Technical									
photography and photography	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras.								

Code of the group: 6S-BP-DOS-V1-23/24-D

Name of the group: 6th Sem. Bachelor Full-Time TET-DOS 1st alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 4 credits Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 4 Note on the group:

Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their Code Completion Credits Scope Semester Role members) Tutors, authors and guarantors (gar.) **Passive Safety** 616PAV Z,ZK 4 2P+1C L Ζ Zuzana Radová Josef Mík (Gar.) Financing and investment in transport 617FID Z,ZK 4 2P+1C+12B L Ζ Alexandra Dvo á ková Olga Mertlová (Gar.)

Characteristics of the courses of this group of Study Plan: Code=6S-BP-DOS-V1-23/24-D Name=6th Sem. Bachelor Full-Time TET-DOS 1st alternative subject from 2023/24

616PAV	Passive Safety	Z,ZK	4				
Road accident evaluation. Testing and legislation. Crash tests. Carbody properties. Injury mechanics. Restrain systems. Airbags. Road user safety. Mathematic modelling. Post collision							
safety systems.	safety systems.						
617FID	Financing and investment in transport	Z,ZK	4				
Sources of financing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment project cycle, subsidy							
programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and programs.							

Code of the group: 6S-BP-DOS-V2-23/24-D Name of the group: 6th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24 Requirement credits in the group: In this group you have to gain 3 credits Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 3

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
612ZAR	Introduction to Architectural Design Petr ervenka, Jana Kumpoštová	Z	3	2P+0C+8B	L	Z
614ZDA	Data Processing Ond ej Smíšek	Z	3	0P+2C	L	Z

Characteristics of the courses of this group of Study Plan: Code=6S-BP-DOS-V2-23/24-D Name=6th Sem. Bachelor Full-Time TET-DOS 2nd alternative subject from 2023/24

612ZAR	Introduction to Architectural Design	Z	3				
Urbanism and architecture of traffic systems. Bus and trolley-bus transport. Tramway and town tracks. Design of vehicles. Subway. Railway transport. Railway stations. Local							
communications. International airports.							
614ZDA	Data Processing	Z	3				
Introduction to data processing and analysis tools. Practical part of the training - introduction to the working environment, applied examples of data processing from practice, advanced							
methods of presentation of the results. Seminar papers on open data. Consultation hours for seminar papers. Seminar paper submission and presentation.							

Name of the block: Semestrální projekt Minimal number of credits of the block: 8 The role of the block: ZP

Code of the group: XB-BP-DOS-22/23-DC

Name of the group: Research Groups Bachelor Full-Time TET-DOS from 2022/23 Requirement credits in the group: In this group you have to gain 8 credits Requirement courses in the group: In this group you have to complete 3 courses Credits in the group: 8 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
622X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
623X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
612X31D	Project 1 DOS Dagmar Ko árková	Z	2	0P+2C	L	ZP
614X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
615X31D	Project 1 DOS Petr Musil	Z	2	0P+2C	L	ZP
621X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
616X31D	Project 1 DOS Martin Scháno	Z	2	0P+2C	L	ZP
617X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
618X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
620X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
611X31D	Project 1 DOS	Z	2	0P+2C	L	ZP
614X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
612X32D	Project 2 DOS Josef Kocourek, Tomáš Pad lek, Petr Kumpošt, Dagmar Ko árková	Z	2	0P+3C	Z	ZP
623X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
622X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
621X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
620X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
618X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP

617X32D	Project 21 DOS	Z	2	0P+3C	Z	ZP
616X32D	Project 2 DOS Josef Mík, Martin Scháno Josef Mík (Gar.)	Z	2	0P+3C	Z	ZP
615X32D	Project 2 DOS Petr Musil	Z	2	0P+3C	Z	ZP
611X32D	Project 2 DOS	Z	2	0P+3C	Z	ZP
611X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
622X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
621X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
620X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
618X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
623X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
616X33D	Project 3 DOS Josef Mík, Martin Scháno Josef Mík (Gar.)	Z	4	0P+4C	L	ZP
615X33D	Project 3 DOS Petr Musil	Z	4	0P+4C	L	ZP
614X33D	Project 3 DOS	Z	4	0P+4C	L	ZP
612X33D	Project 3 DOS Josef Kocourek, Tomáš Pad lek, Dagmar Ko árková	Z	4	0P+4C	L	ZP
617X33D	Project 3 DOS	Z	4	0P+4C	L	ZP

Characteristics of the courses of this group of Study Plan: Code=XB-BP-DOS-22/23-DC Name=Research Groups Bachelor Full-Time

TET-DOS from	n 2022/23		
622X31D	Project 1 DOS	Z	2
623X31D	Project 1 DOS	Z	2
612X31D	Project 1 DOS	Z	2
614X31D	Project 1 DOS	Z	2
615X31D	Project 1 DOS	Z	2
621X31D	Project 1 DOS	Z	2
616X31D	Project 1 DOS	Z	2
617X31D	Project 1 DOS	Z	2
618X31D	Project 1 DOS	Z	2
620X31D	Project 1 DOS	Z	2
611X31D	Project 1 DOS	Z	2
614X32D	Project 2 DOS	Z	2
612X32D	Project 2 DOS	Z	2
623X32D	Project 2 DOS	Z	2
622X32D	Project 2 DOS	Z	2
621X32D	Project 2 DOS	Z	2
620X32D	Project 2 DOS	Z	2
618X32D	Project 2 DOS	Z	2
617X32D	Project 21 DOS	Z	2
616X32D	Project 2 DOS	Z	2
615X32D	Project 2 DOS	Z	2
611X32D	Project 2 DOS	Z	2
611X33D	Project 3 DOS	Z	4
622X33D	Project 3 DOS	Z	4
621X33D	Project 3 DOS	Z	4
620X33D	Project 3 DOS	Z	4
618X33D	Project 3 DOS	Z	4
623X33D	Project 3 DOS	Z	4
616X33D	Project 3 DOS	Z	4
615X33D	Project 3 DOS	Z	4
614X33D	Project 3 DOS	Z	4
612X33D	Project 3 DOS	Z	4
617X33D	Project 3 DOS	Z	4

Name of the block: Compulsory elective courses Minimal number of credits of the block: 8 The role of the block: PV

Code of the group: Y1-BP-DOS-23/24-DC Name of the group: Comp. Sel. Courses Bachelor Full-Time TET-DOS from 2023/24

Requirement credits in the group: In this group you have to gain 8 credits Requirement courses in the group: In this group you have to complete 4 courses Credits in the group: 8 Note on the group:

Note on the g	Name of the course / Name of the group of courses		1		г г	
Code	(in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
621Y1AM	Aeronautical Information Management (AIM)	KZ	2	2P+0C	Z	PV
620Y1AF	Alternative Forms of Transportation Project Financing	KZ	2	2P+0C	Z	PV
618Y1AM	Anatomy, Mobility and Safety of Man	KZ	2	2P+0C	Z	PV
614Y1AV	Animation and Visualization	KZ	2	2P+0C	L	PV
612Y1AE	Applied Ecology	KZ	2	2P+0C	Z	PV
620Y1AE	Applied Electronics	KZ	2	2P+0C	Z	PV
614Y1BE	Barrierless Transport	KZ	2	2P+0C	L	PV
615Y1BO	Work Safety and Health Protection in Transportation	KZ	2	2P+0C	L	PV
611Y1BK	Error Detection Codes for Interlocking Systems	KZ	2	2P+0C	Z	PV
621Y1BS	Unmanned aircraft systems 1	KZ	2	2P+0C	L	PV
614Y1BM	Biometric Methods	KZ	2	2P+0C	Z	PV
615Y1DZ	History of Railway Martin Jacura Martin Jacura (Gar.)	KZ	2	2P+0C	L	PV
612Y1DS	Project Documentation in Practice	KZ	2	2P+0C	Z	PV
617Y1EV	Public Sector Economy	KZ	2	2P+0C	Z	PV
623Y1EH	Electronics and hardware in security of transportation	KZ	2	2P+0C	L	PV
620Y1EK	Qualification in Electrical Engineering	KZ	2	2P+0C	L	PV
616Y1EN	Energy Requirements of Vehicles	KZ	2	2P+0C	L	PV
620Y1EA	Environmental Aspects of Transport	KZ	2	2P+0C	Z	PV
615Y1EH	European Integration within Historical Context	KZ	2	2P+0C	Z	PV
618Y1EM	Experimental Methods in Mechanics	KZ	2	2P+0C	Z	PV
615Y1FD	French Area Studies and Transportation	KZ	2	2P+0C	L	PV
614Y1HW	Computer Hardware	KZ	2	2P+0C	L	PV
615Y1HL	History of Civil Aviation	KZ	2	2P+0C	L	PV
615Y1HD	History of City Mass Transport	KZ	2	2P+0C	Z	PV
612Y1HD	Traffic Noise	KZ	2	2P+0C	L	PV
615Y1HE	Work Hygiene and Ergonomics in Traffic	KZ	2	2P+0C	Z	PV
616Y1IS	Interactive simulators and simulations Libor Žídek, Ond ej Smíšek, Martin Scháno, Ond ej Piksa, Ji í Zeisek	KZ	2	2P+0C	L	PV
612Y1KN	Combined Transportation	KZ	2	2P+0C	Z	PV
612Y1KP	Communication and Promotion of Transport Projects	KZ	2	2P+0C	L	PV
620Y1KP	Communication and presentation skills	KZ	2	2P+0C	Z	PV
623Y1KM	Crisis Management	KZ	2	2P+0C	Z	PV
623Y1KO	Quantum Physics and Optoelectronics	KZ	2	2P+0C	L	PV
623Y1KY	Cybernality	KZ	2	2P+0C	L	PV
623Y1KB	Cyber security in transportation	KZ	2	2P+0C	L	PV
621Y1LJ	Aeronautical Radio and Flight Instruments	KZ	2	2P+0C	L	PV
621Y1LS	Air Traffic Services	KZ	2	2P+0C	L	PV
617Y1LL	Logistics of Passenger and Freight Air Transport	KZ	2	2P+0C	L	PV
620Y1LN	Location and Navigation	KZ	2	2P+0C	L	PV
623Y1MK	Crisis Situation Management in Critical Infrastructure	KZ	2	2P+0C	L	PV
623Y1MU	Emergency Events Management Solution in Transport Infrastructure	KZ	2	2P+0C	Z	PV
617Y1MD	Marketing in Transportation Alexandra Dvo á ková	KZ	2	2P+0C	Z	PV
618Y1MT	Engineering Materials	KZ	2	2P+0C	L	PV
621Y1MP	Matlab for project-oriented study	KZ	2	2P+0C	Z	PV

614Y1MP	Modeling Complex Assemblies and Models in Parametric Modeller	KZ	2	2P+0C	Z	PV
615Y1MK	Modern History in Context: Every Day Life and Transport	KZ	2	2P+0C	L	PV
615Y1NE	German in the Economy and Society	KZ	2	2P+0C	Z	PV
621Y1OH	Airline Business and Operations	KZ	2	2P+0C	Z	PV
623Y1OK	Protection of Critical Objects and Infrastructures	KZ	2	2P+0C	L	PV
620Y1OI	Fare Collection and Information Systems	KZ	2	2P+0C	L	PV
614Y1OJ	Object - oriented programming in JAVA	KZ	2	2P+0C	L	PV
614Y1OP	Operating System	KZ	2	2P+0C	Z	PV
617Y1OF	Personal Finance	KZ	2	2P+0C	Z	PV
620Y1OK	Alexandra Dvo á ková Road Lighting	KZ	2	2P+0C	L	PV
611Y1PV	Parametrical and Multicriterial Programming	KZ	2	2P+0C	Z	PV
617Y1PM	Personnel Management	KZ	2	2P+0C	L	PV
612Y1PC	Stanislava Holíková Pedestrian and Cycling Transport	KZ	2	2P+0C	L	PV
614Y1PG	Computer Graphics	KZ	2	2P+0C	 L	PV
614Y1P2		KZ	2	2P+0C	Z	PV
618Y1PS	Computer Aid of Transportation Projecting 2	KZ	2	2P+0C 2P+0C	 L	
	Computer Simulations in Mechanics			2P+0C 2P+0C	_	PV
614Y1PI	Corporate Information System	KZ	2		Z	PV
614Y1PZ	Advanced Data Processing in Spreadsheets	KZ	2	2P+0C	Z	PV
621Y1PC	ATC Procedures and Activities	KZ	2	2P+0C	Z	PV
612Y1PD	Assessment of Transport	KZ	2	2P+0C	Z	PV
620Y1PK	Product Quality Management Processes	KZ	2	2P+0C	Z	PV
614Y1PJ	C Programming Language	KZ	2	2P+0C	Z	PV
612Y1C1	Designing Roads in Civil 3D I	KZ	2	2P+0C	L	PV
612Y1C2	Designing Roads in Civil 3D II	KZ	2	2P+0C	Z	PV
614Y1PA	3D Modeling in AutoCAD	KZ	2	2P+0C	Z	PV
616Y1PV	Operation, Construction and Maintenance of Vehicles	KZ	2	2P+0C	L	PV
612Y1PU	Organization Disposition of Railway Stations	KZ	2	2P+0C	L	PV
612Y1RU	Railway Lines Reconstruction	KZ	2	2P+0C	Z	PV
616Y1RE	Control and Electronic Vehicle Systems Josef Mik, P emysl Toman, Martin Scháno P emysl Toman (Gar.)	KZ	2	2P+0C	Z	PV
621Y1RZ	Human Resources Management	KZ	2	2P+0C	L	PV
617Y1ST	Titan Simulation	KZ	2	2P+0C	L	PV
621Y1SI	ATC Simulator	KZ	2	2P+0C	L	PV
620Y1SC	Sensors and Actuators	KZ	2	2P+0C	L	PV
617Y1SL	Sociology of Human Resources	KZ	2	2P+0C	Z	PV
611Y1SI	Transportation Software Engineering	KZ	2	2P+0C	Z	PV
616Y1KS	Quality and Reliability of Vehicles	KZ	2	2P+0C	Z	PV
612Y1SU	Management and Maintenance of Roads	KZ	2	2P+0C	L	PV
616Y1SO	Strategy and innovation in mobility	KZ	2	2P+0C	Z	PV
617Y1SK	Urban and Regional Rail Transport Systems	KZ	2	2P+0C	L	PV
611Y1TG	Graph Theory	KZ	2	2P+0C	L	PV
623Y1TP	Criminal Law in IT and Transportation	KZ	2	2P+0C	Z	PV
614Y1TI	Creating Interactive Internet Applications	KZ	2	2P+0C	L	PV
621Y1UL	Aircraft Maintenance	KZ	2	2P+0C	L	PV
614Y1UP	Editing of Theses in MS Word	KZ	2	2P+0C	L	PV
618Y1UK	Introduction of Rail Vehicles	KZ	2	2P+0C	 L	PV
612Y1VR	Public Transport in Cities and Regions	KZ	2	2P+0C	Z	PV
623Y1VS	Negotiation and Cooperation	KZ	2	2P+0C	Z	PV
614Y1VM	Development of Applications for Mobile Devices	KZ	2	2P+0C	Z	PV
616Y1VT	Development in Railroad Vehicles	KZ	2	2P+0C	 L	PV
614Y1WG	Webdesign	KZ	2	2P+0C 2P+0C	Z	PV PV
61411///						

	F							
614Y1W2	Webdesign 2	KZ	2	2P+0C	L	PV		
616Y1ZG	Introduction into Applied Computer Graphics	KZ	2	2P+0C	L	PV		
614Y1ZM	Fundamentals of parametric and adaptive modeling	KZ	2	2P+0C	L	PV		
611Y1ZM	Foundation of MATLAB Programming	KZ	2	2P+0C	L	PV		
614Y1ZJ	Fundamentals of programming in JAVA	KZ	2	2P+0C	Z	PV		
612Y1ZU	Principles of Urbanism	KZ	2	2P+0C	Z	PV		
615Y1ZV	East-West dichotomy: Prelude to the Cold War	KZ	2	2P+0C	Z	PV		
616Y1ZL	Vehicle Testing, Legislation and Construction	KZ	2	2P+0C	Z	PV		
TET-DOS from 2023/2	courses of this group of Study Plan: Code=Y1-BP-DOS-23/24-	DC Name=Co	omp. Sel		Bachelor	Full-Time		
the Czech Rep. AIRAC Syste (Quality Mng. System). ADQ	v of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in em. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeoronautical Inf. Circu (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format).	•		AD (Europer	a AIS Datab	ase). QMS		
	ernative Forms of Transportation Project Financing s of financing in transportation and telecomunications, where the public sector body po	erform the final de	ebtorie de		KZ	2 ts budget but		
	participant of the transaction and it is not the counterparty of the financial institute wh							
of transportation and telecon					/7			
	atomy, Mobility and Safety of Man I structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical s	structure of muscle	es Blood cir		KZ	2 em Structure		
-	ar-skeletal system. Injury of human organs and musculo-skeletal system during traffic							
	neans and traffic safety regulations.							
1	mation and Visualization modeling of NURBS, Patch objects, selection of objects (according to filter and propert	ies) 3D Studio M	AX systems	1	KZ	2 Atmospheric		
	ilters, Motion blur, advanced animations, Motion panel. Modeling for morphing and an		-			-		
1 1 1	olied Ecology			1	۲Z	2		
	concepts and principles, ecosystem, ecological factors, energy flow through the ecosystem and biotecical development Landacape definition and description for Success			-		-		
protection. Applied ecology.	 origin and historical development. Landscape definition and classification. Success. 	manic constructio		uniti yside. La	inuscape and	Inature		
	olied Electronics				۲Z	2		
	tor components, their principles, characteristics and typical connection diagrams. Sem							
amplifiers, basic logic gates. amplifier as an inverting and	Functions of basic electronic circuits and methods for their designs (rectifiers, voltage noninverting amplifier).	regulator with Ze	ner diode, t	ransistor as a	an amplifier, o	operational		
	rrierless Transport				٨Z	2		
	ssible public transportation in terms of architectural barriers and also for transportation							
	ads, railway stations, public transport stops, terminal buildings, vehicles, public transpor e supplemented by practical examples.	t, information and	orientation	systems and	transportatio	n technology.		
-	rk Safety and Health Protection in Transportation				٨Z	2		
Fundamental legislative, defi	nition of terms, risks and possible health damage, working conditions and health prote	ection with focus of	on transport	1		ogrammes,		
	d foreign business trips, statistics, working practice.				/7			
	or Detection Codes for Interlocking Systems thods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solor	non codes. Transı	mission cha	1	≺Z │ ion of transm	2 ission errors.		
	or. Design and assessment of detection codes; requirements of the European standard			*		,		
	manned aircraft systems 1			1	<z td="" <=""><td>2</td></z>	2		
procedures. Practical flights.	ment. Aircraft design. Legislation in force in the Czech Republic. Planning and execution	on of the flight. All	rspace divis	sion. Operatio	nal risks and	operational		
	metric Methods				ζ	2		
	ntication methods, principles and performance measurement of biometric systems, ov					•		
-	D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognite aty and risks of biometric technologies.	nition, skin spectr	oscopy, beł	navioral meth	ods, the use	of biometrics		
	tory of Railway				۲Z	2		
Horse-drawn railways, steam	railways, railway network development in the 2nd half of 19th century, regional railway			-				
	opment in the 2nd half of 20th century, high-speed railway origins, railway lines closing, i ctions. Excursions and projections.	important long-dis	stance train	connections,	railway lines	construction,		
	ject Documentation in Practice				٨Z	2		
	ng. Project documentation types. Support materials for project documentation creating	g. Building permit	obtaining p	rocess. Budg	et and pricing	g. Practical		
creation of some project doc	-				٨Z			
	blic Sector Economy ry of public sector, public choice theory, externalites, decisions about public finance all	ocation, economi	c assesmer	1	1	2 MCA, CEA),		
tax system of the CR, state b	udget, management of public projects a their economic efficiency assessment, way of e					-		
623Y1EH Electronics and hardware in security of transportation KZ 2								
Types and parameters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits, parameters. Active filters. Power supplies. Logic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. Design and fabrication methods								
in electronics.								
	alification in Electrical Engineering	<u> </u>	-4-1		<z< td=""><td>2</td></z<>	2		
	asurements in laboratories, electrical equipment, power supply, electrical installation or urrents, electrical equipment protection against short circuit and overload protection, c	-		-		-		
in relation to health and safe			,					

	Energy Requirements of Vehicles	KZ	2
	ng inertial of the vehicles. Types of energy - kinetic, static, heat, chemical and others. Ways of energy change into kinetic ene	rgy. Combustion e	ngine, electric
	r engine. Energy accumulation means, accumulator, flywheel, fuel cell. Energy recuperation. WTW analysis.	1/7	2
620Y1EA	Environmental Aspects of Transport	KZ	2
	e, weather observation network, weather in transportation, road meteorology. Weather forecasting, data assimilation, probabil Ints and their effects, atmospheric chemistry, traffic emissions. Greenhouse gasses, carbon cycle, a role of energy and transp		
615Y1EH	European Integration within Historical Context	KZ	2
	ation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism	1	
goals. Europe after Hitl	er's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and	d its consequence	s for Europe.
	German relationship - a driving power of starting European integration.		_
618Y1EM	Experimental Methods in Mechanics	KZ	2 viola Dasign of
	of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructi es and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. F	-	-
	testing. Introduction to electron microscopy. Errors in measurement.		e prediction.
615Y1FD	French Area Studies and Transportation	KZ	2
France - geography an	d regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air tr	affic, specialised t	erminology.
-	ture. Current political system. System of education, studying in France. Selected authors of French literature. French gastrono		
614Y1HW	Computer Hardware	KZ	2
	basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate	e parts designing	- controllers,
arithmetic and logical u 615Y1HL		KZ	2
	History of Civil Aviation evelopment of aircrafts heavier than air. Czechoslovak aviation pioneers. Development	1	
	aviators. Helicopters. CSA airplanes. Development of aircrafts in Czechoslovakia between the years 1945-1989. Classic era	-	
aviation. Modern era of	civil aviation. Airline companies. Supersonic flying.		
615Y1HD	History of City Mass Transport	KZ	2
	nsport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current tren		ents of tariff and
	tory of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic and S		-
612Y1HD	Traffic Noise	KZ	2
	pasic terms, quantities. Basics of physiological acoustic, noise impacts on human body. Acoustic legislation, standarts, regulat n acoustic, noise transmission, soundproofing. Types of noise sources in area. Determination of acoustic situation in the area		
	ement of transport noise. Acoustic studies, measuring protocol.		
615Y1HE	Work Hygiene and Ergonomics in Traffic	KZ	2
	cupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of thes	e factors on healtl	n of workers.
	n of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to	possibilities and	skills of man.
	n the field of transportation; relevant legislative.		
616Y1IS	Interactive simulators and simulations	KZ	2
	annication of computing equipment. Oracting computing models. Machanical and dynamic systems and their mothematical m	1	
-	application of computing equipment. Creating computing models. Mechanical and dynamic systems and their mathematical m vnamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu	nodels. Computing	
Simulation of vehicle d	ynamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation	nodels. Computing ulators.	methods.
Simulation of vehicle d		hodels. Computing ulators.	methods.
Simulation of vehicle d	ynamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation	hodels. Computing ulators.	methods.
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public	namics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and provide transportation are grand legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu	x methods. 2 stic centres. 2 ublic on social
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond.	namics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and provide transportation are go and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu	x methods. 2 stic centres. 2 ublic on social
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond influence of political material	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and provide transport and provide transport in combined transport. Combined transport systems. Transshipping area communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing.	hodels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis commu	2 stic centres. 2 ublic on social unication. The
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Publi networks and beyond influence of political ma 620Y1KP	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and provide transport and provide transport in combined transport. Combined transport systems. Transpring area communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing.	hodels. Computing Jators. KZ as. Multimodal log KZ the media, the pu n for crisis commu- KZ	2 stic centres. 2 ublic on social unication. The 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond influence of political ma 620Y1KP Motivation, priorities ar	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and properties are a communication and Promotion of Transport Projects called and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing.	hodels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis communication KZ s, basic typology of	2 stic centres. 2 ublic on social unication. The 2 of personalities,
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional in	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and provide transport and provide transport in combined transport. Combined transport systems. Transpring area communication and Promotion of Transport Projects called the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing.	hodels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis communication KZ s, basic typology of	2 stic centres. 2 ublic on social unication. The 2 of personalities,
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional in	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and properties are a compared by the provided the	hodels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis communication KZ s, basic typology of	2 stic centres. 2 ublic on social unication. The 2 of personalities,
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and Promotion of transport in combined transport. Combined transport systems. Transshipping area communication and Promotion of Transport Projects calculations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills define fulfillment, current communication networks, work with various sources, formal requirements of emails and final these tetelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, watton skills, presentation skills in online environment. Crisis Management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled to communication with direction to Rescue system (IZS).	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis common KZ s, basic typology of ys of communicat KZ lge on: theory and	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta	mamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulated provide the system of the systems and the provide the systems of transport in combined transport. Combined transport systems. Transpring area communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these theligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, was to risis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled regets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat ge on: theory and upilation.	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presental 623Y1KM Theory and legal frame management and its ta 623Y1KO	mamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and promotion of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these tetelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled rgets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis common KZ s, basic typology of ys of communicat KZ lge on: theory and	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presental 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulated of the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and preparation arketing and political PR on transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills de their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these tetelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, waiton skills, presentation skills in online environment. Crisis Management of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled rgets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix communication of quantum Physics in practice. Optoelectronics. Production of optoelectronics components.	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ Ige on: theory and upilation. KZ	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY	mamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and promotion of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics ysics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ Ige on: theory and apilation. KZ	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presental 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of beh	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and properties of transport in combined transport. Combined transport systems. Transshipping area in the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation Skills Id the fulfillment, current communication networks, work with various sources, formal requirements of presentations, waiton skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics ysics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avoir on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism	Andels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat kZ ge on: theory and apilation. KZ h Infoware and cor	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects.
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of beh 623Y1KB	mamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and promotion of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics ysics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ ge on: theory and apilation. KZ LIF	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presental 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of bef 623Y1KB Basic concepts of secu	Image: Instruction of the provided of the provi	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ ge on: theory and apilation. KZ h Infoware and cor KZ cyberspace, socia	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presental 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of bef 623Y1KB Basic concepts of secu	Anamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and promotion of transport in combined transport. Combined transport systems. Transshipping area communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, waiton skills, presentation skills in online environment. Crisis Management of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled rgets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics yoics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism of the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism of cyber security in transportation	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ ge on: theory and apilation. KZ h Infoware and cor KZ cyberspace, socia	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of beh 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor	Invanics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and properties of transport in combined transport. Combined transport systems. Transshipping area communication and Promotion of Transport Projects calculate and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wat ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics ysics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security, in transportation rity and cyber security, egal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in oc ck technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, gyroscopic instrumentation	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ lge on: theory and apilation. KZ h. Infoware and cor KZ cyberspace, socia s and standards. KZ ation, airframe inst	methods. 2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social 2 rumentation and
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of beh 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer	Invanics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics systes. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security in transportation rity and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in oc ck technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norma- Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, groscopic instrumentation artificial instrumentation operational requirements, radiocommunication artificial instrumentation, warning and recording systems, instrumentation operational	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis commu- kZ s, basic typology of ys of communicat KZ ge on: theory and apilation. KZ h. Infoware and cor KZ cyberspace, socia s and standards. KZ ation, airframe inst d radionavigation	methods. 2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social currentation and
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. v influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum phr 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS	Inamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparatio arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these itelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics rsics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security in transportation rity and cyber security, infransportation rity and cyber security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instrumentation, Earth magnetism, aircraft electric equipment, groscopic instrumenta t, engine instrumentation, warning and recording systems, instrumentation operational requirements, radiocommunication ar Air Traffic Services	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ lge on: theory and apilation. KZ h. Infoware and cor KZ cyberspace, socia s and standards. KZ ation, airframe inst ad radionavigation KZ	methods. 2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social currentation and 2 1 2 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 1 influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum phr 623Y1KV Juridical aspects of beh 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C	Inamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Palatons and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparatio relations and presentation Skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these itelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics scies. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in or ck technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, radiocommunication ar Air Traffic Services zech Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, /	hodels. Computing ulators. KZ as. Multimodal log KZ the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ lge on: theory and apilation. KZ h. Infoware and cor KZ cyberspace, socia s and standards. KZ ation, airframe inst ad radionavigation KZ	methods. 2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social currentation and 2 1 2 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 1 influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KY Juridical aspects of beh 623Y1KB Basic concepts of secu engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C at USA and Czechoslo	Inamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects c Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled rgets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics svics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avoir on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security, in transportation rity and cyber security, user attacks on telematics systems, security of systems with artificial intelligence, norms Acronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, groscopic instrumenta t, engine instrumentation, warning and recording systems, instrumentation operational requirements, radiocommunication ar Air Traffic Services zech Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, / vakia. ATS - Model of financing.	hodels. Computing ulators. KZ as. Multimodal log KZ by the media, the pu on for crisis communicat KZ s, basic typology of ys of communicat KZ lge on: theory and apilation. KZ h. Infoware and cor KZ cyberspace, socia s and standards. KZ ation, airframe inst ad radionavigation KZ APP a ACC contro	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social currentation and 2 1 unication. 2 unication. 2 unica
Simulation of vehicle di 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 4 influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentat 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum phy 623Y1KY Juridical aspects of beh 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C at USA and Czechoslo 617Y1LL	Inamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simu Combined Transportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Palatons and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparatio relations and presentation Skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these itelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics scies. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism Cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in or ck technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, radiocommunication ar Air Traffic Services zech Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, /	Andels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis commu- KZ by sof communicat KZ log on: theory and apilation. KZ cyberspace, social s and standards. KZ ation, airframe inst ad radionavigation KZ APP a ACC control	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social rumentation and 2 1. History of ATS 2
Simulation of vehicle d 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 1 influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum phr 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C at USA and Czechoslo 617Y1LL Logistics airline passer air cargo. Information s	In amics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and prosportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area communication and Promotion of Transport Projects calls and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, waiton skills, presentation skills in online environment. Crisis Management Crisis Management Guantum Physics and Optoelectronics Sics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cyber security in transportation rity and cyber security, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, gyroscopic instrumentation are for Systems in transportation and recording systems, instrumentation apreparation are faile instrumentation, warning and recording systems, instrumentation apreparate systems of two systems in a caller systems. France and communication and mediate the systems in a caller systems and computer systems in a caller and the systems and preparation of a syst	Andels. Computing Jators. KZ as. Multimodal log KZ the media, the pu on for crisis commu- KZ by sof communicat KZ log on: theory and apilation. KZ cyberspace, social s and standards. KZ ation, airframe inst ad radionavigation KZ APP a ACC control	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social rumentation and 2 1. History of ATS 2
Simulation of vehicle di 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 4 influence of political ma 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum ph 623Y1KV Juridical aspects of beh 623Y1KB Basic concepts of secu engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C at USA and Czechoslo 617Y1LL Logistics airline passer air cargo. Information s 620Y1LN	In amics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and Promotion of Transport Projects Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation arketing and political PR on transport projects. Lobbing. Communication and presentation skills di their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wai ion skills, presentation skills in online environment. Crisis Management of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowled rgets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics ysics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism (Cyber security in transportation rity and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in or ck technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, norms Aeronautical Radio and Flight Instruments y of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, groscopic instrumentati t, engine instrumentation, warning and recording systems, instrumentational requirements, radiocommunication ar Air Traffic Service	Andels. Computing Jators. KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ s, basic typology of ys of communicat KZ log on: theory and apilation. KZ as and standards. KZ ation, airframe inst and radionavigation KZ APP a ACC control KZ transport process KZ	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social 2 rumentation and 2 nector of ATS 2 passengers and 2
Simulation of vehicle di 612Y1KN Combined transport str 612Y1KP Fundamentals of Public networks and beyond. 4 influence of political may 620Y1KP Motivation, priorities ar teamwork, emotional ir presentation, presentar 623Y1KM Theory and legal frame management and its ta 623Y1KO Ground of quantum phy 623Y1KV Juridical aspects of beh 623Y1KB Basic concepts of secu- engineering, cyber atta 621Y1LJ Basic definitions, histor other aircraft equipmer 621Y1LS Airspace structure in C at USA and Czechoslo 617Y1LL Logistics airline passer air cargo. Information s 620Y1LN Description and examp	Inamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interactive simulation and proportation ategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping area Communication and Promotion of Transport Projects Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparatio arketing and political PR on transport projects. Lobbing. Communication and presentation skills d their fulfillment, current communication networks, work with various sources, formal requirements of emails and final these telligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, wa ion skills, presentation skills in online environment. Crisis Management of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility matrix com Quantum Physics and Optoelectronics sets. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics components. Cybernality avior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism (a cyber security in transportation rity and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in o ck technology. Information, aerometric instrumentation, Earth magnetism, aircraft electric equipment, groscopic instrumenta is engine instrumentation, warning and recording systems, instrumentation operational requirements, radiocommunication and Arr Traffic Services zeok Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, v avia. ATS - Model of financing. Training System of Air Trafnsport ger and cargo. Aircraft and	Andels. Computing Jators. KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ as. Multimodal log KZ s, basic typology of ys of communicat KZ log on: theory and apilation. KZ as and standards. KZ ation, airframe inst and radionavigation KZ APP a ACC control KZ transport process KZ	2 stic centres. 2 ublic on social unication. The 2 of personalities, ion during 2 position of crisis 2 2 nected aspects. 2 1 impacts, social 2 rumentation and 2 nector of ATS 2 passengers and 2

623Y1MK	Crisis Situation Management in Critical Infrastructure	KZ	2
	infrastructute elements on all levels, their protection systems, responsibilities of particular agencies of the state administrati	•	overnment, and
	nounce particular safety provisions. Physical and cyber protection of critical infrastructure with special attention to the soft to	-	
	Emergency Events Management Solution in Transport Infrastructure	KZ	2
-	ency events with emphasis of the transport infrastructure events and their solution management. Knowledge in the emergence	y planning and sp	ecial procedures
· ·	the transport infrastructure.		
	Marketing in Transportation	KZ	2
	arketing applied to transport issues, marketing tools suitable for transport as a service, specifics of public passenger transpo	rt and the resultin	g differences in
the application of marke		K7	2
	Engineering Materials main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers	KZ	-
,	nd to biomimetics. Integral approach to material selection process is also demonstrated based on so called Ashby's selection	1 /	attention is paid
	Matlab for project-oriented study	KZ	2
	focused on the problem-solving during bachelor's thesis preparation and it is based on students' requests. Individual exerci	1	1
	sed on actual students' needs and suggestions. The subject will have a flexible form, which is expected to bring an improven		
	Modeling Complex Assemblies and Models in Parametric Modeller	KZ	2
	g - tools and methodology of working subassemblies and assemblies, sheet metal parts modelling, welded assemblies, pipe		
	idering - physical and material properties, lighting sources. MKP - visual example.		
615Y1MK	Modern History in Context: Every Day Life and Transport	KZ	2
	odern history of every day life, science, technology and transport in a wider context.		
615Y1NE	German in the Economy and Society	KZ	2
	ocial issues of German speaking countries and of the EU. Reading and listening of texts. Lexical, grammatical and semantic	1	
selected topics.		-	
621Y1OH	Airline Business and Operations	KZ	2
	omprehensive view of the commercial, operational and transportation activities of air transport companies. It focuses on the org	1	
various aspects of their s	strategy, economic and operational indicators. It introduces students in detail to operational processes and the essentials of tra	ansportation proce	esses. It provides
a basic view of the econ	omic aspects of air transport.		
623Y1OK	Protection of Critical Objects and Infrastructures	KZ	2
Types of technological s	ystems, critical item, risks and their courses, criticality, vulnerability, connectivity, dependability, resilience, failure, protection,	safety of critical ob	jects and critical
infrastructures.			
620Y1OI	Fare Collection and Information Systems	KZ	2
Fare collection systems	in public transport and their components (on-board units, validators, turnstiles,). Information systems and their component	its for users (timet	ables, maps,
panels) and operators	s (cycles, location or current delay of vehicles,). The issue of tariff systems. Other examples of clearance systems (parking	J).	
614Y1OJ	Object - oriented programming in JAVA	KZ	2
Objective Thinking, Enca	apsulation, Classes, Attributes, Access Modifiers, Methods and Overloading, Special Methods (Constructors, Getters / Sette	rs), Basic Object	ct Methods,
	nheritance, Polymorphism, Statics, constants, interfaces, abstract classes, enum, packages, exceptions, collections, generics	, lambda expressi	ons, anonymous
functions			
	Operating System	KZ	2
	GNU/Linux OS. X-window system. Rights management - users and groups, ACL rights. Filesystems and attributes. Program	•	
	programs / commands. Config files. SW management, package systems. Programs in graphic shell - text, spreadsheet, gra	phic editors, soun	d, video and
	s management. Safe and secure configuration of OS. Remote administration.		
	Personal Finance	KZ	2
	et, financing of basic living needs), debt (loans and credits, payment instruments, interest and fees, debt trap), financing of h		
	cing), savings and investments (investment horizon, return, risk, investment strategy), insurance (insurance types, suitability a	and adequacy), se	curing the future
(retirement savings and		1/7	
	Road Lighting	KZ	2
	and terms, street lighting components (luminaires, control cabinets for street lighting, street lighting cables), characteristics of l		-
Relux, street lighting cor	ards, measurement of illuminance and luminance in road lighting, tunnels, conceptual approach to street lighting design, ligh	ling calculations in	II DIALUX allu
	Parametrical and Multicriterial Programming	KZ	2
'	of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints		1
		KZ	2
	Personnel Management roup, man as personality, planning, choice, evaluation and education of human sources, work adaptation, teamwork, intercu	1	1
-	Pedestrian and Cycling Transport	KZ	2
	Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle r	1	1
	of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossi	-	
	and road marking for cyclists.	igo with other trai	ioport modoo,
	Computer Graphics	KZ	2
	and possibilities of their editing and mutual conversion. Use of individual types according to character of work. Work with ed		
	s, DPI, colors. Basics of digital photography, scanning and computer technology like monitors and graphics cards.	51 -5 (
614Y1P2	Computer Aid of Transportation Projecting 2	KZ	2
	tion for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting,		1
	relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic trans		
section). Basics of 3D m			-
618Y1PS	Computer Simulations in Mechanics	KZ	2
	of programs for stress analysis of structures. Numerical methods in mechanics, finite element method. Geometric model de		aptation of
geometry from other CA	E systems. Assignment of material properties. The types of elements and their use. Discretization of solid model. Boundary	conditions and ap	plication of the
	ctural and modal analysis. Introduction to complex nonlinear problems.	<u>. </u>	
614Y1PI	Corporate Information System	KZ	2
	edge, components of information system, syntatic and semantic sense of data, structure of corporate information system, pa		-
	n, storage, etc.), corporate information politic and information control, risks of information system operation, legal environment	nt of information s	ystem operation,
I state information system	n, information system security, data protection, safety politics.		

614Y1PZ Advanced Data Processing in Spreadsheets KZ 2
Students will be familiar with principles of working in a spreadsheet. Graphic layout of the table appearance, formatting of numbers, insertion of formulas and functions, including
addressing, error detection. Working with large spreadsheets, filters, advanced filters, database functions. Pivot tables and charts, conditional formatting, solution finding, solver, macros,
data analysis. Examples and questions from various companies and training.
621Y1PC ATC Procedures and Activities KZ 2
Air traffic control procedures, basics of communication and phraseology, aircraft identification, spacing and traffic coordination. In addition, the course discusses air traffic control at
the airports and low visibility operational procedures. Students will during the course learn basic safety management applications applied across the infrastructure.
612Y1PD Assessment of Transport KZ 2
Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its protection and assessment
transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of assessment of traffic buildings on
the environment.
620Y1PK Product Quality Management Processes KZ 2
General principles of organization management. Management systems and international standards; quality management systems. Quality products, processes, systems. A framework
of standards for systems management, management principles. Principles of process management, monitoring and measurement systems management. Uniform framework of standards
for systems management. Process management principles. Metrology and testing. Product certification.
614Y1PJ C Programming Language KZ 2
C programming language. Preprocessor, basics of the C language (data types, syntax, commands), functions, pointes, dynamical memory allocation, string, files, structures and unions.
Implementations of abstract data types (FIFO, LIFO, list), programming techniques (sorting, searching, recursion), using bitwise oprerators.
612Y1C1 Designing Roads in Civil 3D KZ 2
The course is devoted to the traffic buildings design field, specifically the design of roads as such, by the means of a 3D software. Students go through the complete design of this particular linear building, from the initial situation, over the longitudinal section, to the model and work sections and the cubic capacity calculation. The course also includes a basic
explanation of the traffic building design in the real-life profession.
612Y1C2 Designing Roads in Civil 3D II KZ 2
The course is devoted to the traffic buildings design field, specifically the design of roads as such, by the means of a 3D software. Students go through the complete design of this
particular linear building, from the initial situation, over the longitudinal section, to the model and work sections and the cubic capacity calculation. The previously acquired skills are
improved and developed. Students learn to design intersections.
614Y1PA 3D Modeling in AutoCAD KZ 2
Work in 3D non-parametric modeller (AutoCAD) environment, scenes rendering, creation of planar and volumetric objects, user setup creation, object data creation, work with data
connected with external database. Basic definition of work with lights, materials and reflexes. Models presentation.
616Y1PV Operation, Construction and Maintenance of Vehicles KZ 2
Methods of vehicle production. Vehicle maintenance. Vehicle diagnostics. Maintenence and repair plans. Engine maintenance and emission measurement. Transmission mechanism.
General principles of engine diagnostics.
612Y1PU Organization Disposition of Railway Stations KZ 2
Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone stations. Formation yards.
Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic railway network.
612Y1RU Railway Lines Reconstruction KZ 2
Keeping railway line operational, maintaining lines and stations, geometrical alignment of railway line, vehicles for railway superstructure and substructure maintenance, scheduling
and organising possesions, preparation of railway lines reconstruction and maintenance, process of ralway line reconstruction.
616Y1RE Control and Electronic Vehicle Systems KZ 2
Elementary concepts of regulation. Tools for analytical solution, linear system description. Basic types of a regulator (PID), properties, advantages, disadvantages, function. Conventional
and hybrid drive control. Electric drive. Vehicle communication bus (CAN, LIN, FlexRay, ISObus, KWP2000 protocole etc.). Vehicle electronic control, safety, communication and
comfort systems.
621Y1RZ Human Resources Management KZ 2 The position of human resources in the organization and related disciplines file. Substance, importance and challenges of human resources management. Internal and external
environment of human resource management. Human resource planning. Search, recruitment and selection of employees. Motivation, evaluation and remuneration of staff. Positioning,
dismissal and redundancies of employees. Education of employees. Planning career management.
617Y1ST Titan Simulation KZ 2
Titan is a management game simulating the business decisions. Lets 2-8 student groups to produce and compete in the market with the same product. Students set a price and
determine the quantity and capacity of production, plan budgets for marketing, research and development. They become familiar with the consequences of their decisions by the form
of financial corporate reports and they use this information for other business decisions.
621Y1SI ATC Simulator KZ 2
Familiarization with the simulation environment, acquiring basic habits, aircraft identification procedures, vectoring, level changes, ATC clearance, use of RNAV points. Practical
exercises focusing on basic vectoring, early application of vertical separation, EST and REV message passing. Practical exercises in the APPROACH area, practicing arrival and
departure management procedures, conflict resolution.
620Y1SC Sensors and Actuators KZ 2
Principles of sensors and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of mechanical, electro-magnetic,
state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase elements.
617Y1SL Sociology of Human Resources KZ 2
Human resources and their importance, work group as a special kind of social group, communication, personal management, modern management, human resources planning, culture
of the organization.
611Y1SI Transportation Software Engineering KZ 2
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage.
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2 Quality and reliability theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key legislation. FMEA (Failure
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2 Quality and reliability theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key legislation. FMEA (Failure Mode and Effects Analysis), QFD (Quality Function Deployment), DFx (Design for Assamly, Manufacturying, Quality, Services) and other methods used in industrial applications.
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2 Quality and reliability theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key legislation. FMEA (Failure Mode and Effects Analysis), QFD (Quality Function Deployment), DFx (Design for Assamly, Manufacturying, Quality, Services) and other methods used in industrial applications. Knowledge-based systems of quality and reliability, data collection.
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2 Quality and reliability theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key legislation. FMEA (Failure Mode and Effects Analysis), QFD (Quality Function Deployment), DFx (Design for Assamly, Manufacturying, Quality, Services) and other methods used in industrial applications. Knowledge-based systems of quality and reliability, data collection. 612Y1SU Management and Maintenance of Roads KZ 2
Basic concepts of software engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implementation using formal techniques and practical usuage. 616Y1KS Quality and Reliability of Vehicles KZ 2 Quality and reliability theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key legislation. FMEA (Failure Mode and Effects Analysis), QFD (Quality Function Deployment), DFx (Design for Assamly, Manufacturying, Quality, Services) and other methods used in industrial applications. Knowledge-based systems of quality and reliability, data collection.

	,	
616Y1SO Strategy and innovation in mobility	KZ	2
Introduction to innovation, definition. Innovation strategy. Innovation life cycle and ecosystem, main sources and funding opportunities. Successful in co-financing, evaluation. Sprint method and its use. Innovative business model - main patterns and examples, design, strategy, processes and outloo		
of use). Creating an innovation strategy. Customer and value map, design and testing.		
617Y1SK Urban and Regional Rail Transport Systems	KZ	2
Factors affecting transport demand, modal-split, distribution of passenger flows on public regional transport lines. Optimization of line management,	-	-
evaluation of the timetable. Vehicle circulation creation. Optimizing driver shifts and arranging them in turnus. Effects of barrier-free and public transp	ort preferences. T	he role of
611Y1TG Graph Theory	KZ	2
Basic concepts and terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees,	1	
path problem, Eulerian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence	e and optimizatio	n and algorithms
for their solving. Computational complexity, dealing with NP-complete problems, heuris		
623Y1TP Criminal Law in IT and Transportation Introduction of criminal law into legal order, conception of culpability and criminal delict, consequency of other legal standards. international treaty ar	KZ	2
crime, specific indicia of criminal court cases, practical examples.	iu chininai law, in	resugation of
614Y1TI Creating Interactive Internet Applications	KZ	2
Possibilities of scripting language PHP. Overview of PHP language syntax, and functions. Analysis of finished scripts and demonstration of solutions.	Your own applicat	on programmed
in PHP language.		
621Y1UL Aircraft Maintenance		2
Aircraft operations and technical operations. Maintenance and work processes. Defects search methods, status check diagnostic tools. Selection and Basic documentation for maintenance. Optimization of time maintenance intervals. Regulation no. 1321/2014 Part 145. Human factors of aircraft mai	-	
EASA for aircraft maintenance. Seminars will be focused on practical application.		
614Y1UP Editing of Theses in MS Word	KZ	2
Students will be introduced to the principles of creating and editing large documents and basic typographic rules. They will properly apply styles, cre		
figures, tables, graphs, etc. Footnotes, captions, index. They practice corrections of finished documents. The goal is to prepare students for seamless so that they are able to concentrate mainly on writing a thesis.	s editing dissertati	ons and theses,
618Y1UK Introduction of Rail Vehicles	KZ	2
Basic characteristics and parameters rail transport systems - railway and urban transport. Basis driving mechanics rail vehicles - equation of motion	I	_
track resistance. Total running resistance. Acceleration force. Analyzing driving cycle rail vehicle. Speed-power diagrams and characteristics rail vehicle	e - hydromechani	c, hydrodynamic
and electric drive. Design concept rail vehicles and drive of wheel set.	1/7	
612Y1VR Public Transport in Cities and Regions Professional and political pillars of public transport. Accessibility of public transport. Transport demand management and directional coordination of I	KZ Ines Principles of	2 line tracing
Basic operating parameters and transport variations. Types of lines according to their routing and basic operating parameters. Time coordination of li	-	-
Organization of tram operation in Prague. Tram safety.		
623Y1VS Negotiation and Cooperation	KZ	2
Code of conduct for negotiation. The influence of personality traits on the negotiations. Negotiation and commanding. Teamwork. Variants teams. Infor Principles of negotiation, the essence of negotiation, the differences in negotiation in business and in crisis situations, the principle of "win both", spe		
		iding, the role of
614Y1VM Development of Applications for Mobile Devices	KZ	2
Object oriented programming, Java programming language, development environment, operating system Android, development application - widget	s, containers, thre	ads, menu,
permissions, services, GUI.	1/7	
616Y1VT Development in Railroad Vehicles Railroad vehicles traction. Railroad vehicle parametres regulation. Control and driving of railroad vehicles. Importance in heavy duty and personal tra	KZ	2 al situation
assesment. New materials in design. International standardization.		
614Y1WG Webdesign	KZ	2
Students will learn the basics of HTTP communication, URL and addressing, HTML5 markup language, advanced CSS3 techniques, accessible and	l usable web rules	, responsive
webdesign, content management systems, web server installation + configuration directives. The subject matter will be trained on examples.	1/7	
614Y1W1 Webdesign 1 Students will learn the basics of communication HTTP, URL and addressing, markup languages HTML and XHTML, HTML tags, rules of web accessi	KZ	2 CSS properties
and selectors, the issue of web browsers, creating one to three column layout pages, sites validation, conditional comments. Topics will be practiced		
614Y1W2 Webdesign 2	KZ	2
Students will learn advanced techniques CSS, responsive webdesign, CSS frontends, content management systems, JavaScript, jQuery, SEO, web	server installation	+ configuration
directives. Topics will be practiced on practical examples.	1/7	
616Y1ZG Introduction into Applied Computer Graphics Computer graphics, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour sc	KZ	2 principles of 2D
and 3D generation, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basic	chemes models r	
graphics software.		2D and 3D
614Y1ZM Fundamentals of parametric and adaptive modeling	cs. Introduction to	
	kZ	2
Basics of work at products and parts creation. Sketch drawing by help of geometric relations, parametric dimensions, creation of adaptive models fro	kZ	2
from and to another systems. Fundamentals of assemblies creation.	KZ	2 port and export
	KZ M 2D sketches. In KZ	2 nport and export 2
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, r control flow, inputs and outputs, graphics, optimization and program code debugging.	KZ m 2D sketches. In KZ natrices and elem	2 nport and export 2 ents operations,
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, r control flow, inputs and outputs, graphics, optimization and program code debugging. 614Y1ZJ Fundamentals of programming in JAVA	KZ m 2D sketches. In KZ natrices and elem	2 nport and export 2 ents operations, 2
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, r control flow, inputs and outputs, graphics, optimization and program code debugging. 614Y1ZJ Fundamentals of programming in JAVA Introduction to the Java SE Platform, IDE Installation and First Project, Comments, Variables and Type System, Operators, User Input and Parsing, Operators, User Input a	KZ m 2D sketches. In KZ natrices and elem KZ Chain and Chain 0	2 nport and export 2 ents operations, 2 Conversion, Text
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, r control flow, inputs and outputs, graphics, optimization and program code debugging. 614Y1ZJ Fundamentals of programming in JAVA	KZ m 2D sketches. In KZ natrices and elem KZ Chain and Chain 0	2 nport and export 2 ents operations, 2 Conversion, Text
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, recontrol flow, inputs and outputs, graphics, optimization and program code debugging. 614Y1ZJ Fundamentals of programming in JAVA Introduction to the Java SE Platform, IDE Installation and First Project, Comments, Variables and Type System, Operators, User Input and Parsing, C Chain and Mathematical Methods, Terms, Relational Operators and Switches, Cycles for, while, foreach, Field - declaration, initialization, methods for parameters, return value, recursion, Program creation 612Y1ZU Principles of Urbanism	KZ m 2D sketches. In KZ natrices and elem KZ Chain and Chain C r field work, ASC	2 nport and export 2 ents operations, 2 Conversion, Text I, Functions, 2
from and to another systems. Fundamentals of assemblies creation. 611Y1ZM Foundation of MATLAB Programming To explain the principle of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, recontrol flow, inputs and outputs, graphics, optimization and program code debugging. 614Y1ZJ Fundamentals of programming in JAVA Introduction to the Java SE Platform, IDE Installation and First Project, Comments, Variables and Type System, Operators, User Input and Parsing, Chain and Mathematical Methods, Terms, Relational Operators and Switches, Cycles for, while, foreach, Field - declaration, initialization, methods for parameters, return value, recursion, Program creation	KZ m 2D sketches. In KZ natrices and elem KZ Chain and Chain C r field work, ASC	2 nport and export 2 ents operations, 2 Conversion, Text I, Functions, 2

615Y1ZV	East-West dichotomy: Prelude to the Cold War	KZ	2
Historical prologue, evo	ution of the "West" and "East" from the 1500s. Focus on the history in the period between 1850 nad 1950. Milestones and con	tinuity of the interr	national relations
in the end of 19th centu	ry and the beginning of the 20th century. Revolutions, the causes and consequences. Scientific and technological progress, i	the causes and co	onsequences.
Economic and financial	history. Social changes. Discussions on texts, sources.		
616Y1ZL	Vehicle Testing, Legislation and Construction	KZ	2
Vehicle costruction, age	regate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, truck	s, buses, motorbi	kes, legislation
in the EU and in the wo	rld, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in testing.		

Name of the block: Elective courses Minimal number of credits of the block: 0 The role of the block: V

Code of the group: VP-BP-TET-20/21-DC Name of the group: Bachelor Full-Time TET voluntary Requirement credits in the group: Requirement courses in the group: Credits in the group: 0 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
614DPK	Digital Support for Designing of Roads and Highways	Z	0	0P+2C	Z	V
614DZT	Digital Support for Railway Lines	Z	0	0P+2C	L	V
611SCFZ	Seminar of Physics	Z	0	0P+2C	Z	V
621SLD	Seminar of Air Transport	Z	0	0P+2C	L	V
618SPP	Seminary from Elasticity and Strength	Z	0	0P+2C	Z	V
618STD	Seminary from Technical Documentation	Z	0	0P+2C	Z	V
618SS	Seminary from Structural Analysis	Z	0	0P+2C	L	V
611SSF	Secondary School Physics Course	Z	0	0P+2C	L	V
TVKLV	Physical Education Course	Z	0	7dní	L	V
TVKZV	Physical Education Course	Z	0	7dní	Z	V

Characteristics of the courses of this group of Study Plan: Code=VP-BP-TET-20/21-DC Name=Bachelor Full-Time TET voluntary

614DPK	Digital Support for Designing of Roads and Highways	Z	0
Seminars possibi	pilities of technical processing problems focused on designing of roads and highways.		1
614DZT	Digital Support for Railway Lines	Z	0
Seminars possibi	pilities of technical processing problems solved in the field of railway lines.		1
611SCFZ	Seminar of Physics	Z	0
Solving problems	s on kinematics, particle dynamics, dynamics of particle systems and rigid body. Continuum mechanics, thermodynamics.		
621SLD	Seminar of Air Transport	Z	0
performance. Flig	ns, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation ight planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft v. Airlines and economics. Space technologies.	, 0 ,	,
	· · ·		
618SPP	Seminary from Elasticity and Strength	Z	0
Excersise for pra	Seminary from Elasticity and Strength actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sec of circle cross section. Combined loading. Stability of compressed bar and buckling.	Ction of beam. Analysis of	-
Excersise for pra	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross se	Ction of beam. Analysis of	-
Excersise for pra- of beam. Torsion 618STD	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sec of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, o	Z	deflection curve
Excersise for pra- of beam. Torsion 618STD Technical standa	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sec of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, o	Z	deflection curve
Excersise for pra of beam. Torsion 618STD Technical standa arrangement of d 618SS	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sec of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, or drawing sheets.	dimensional and geometric	deflection curve
Excersise for pra of beam. Torsion 618STD Technical standa arrangement of d 618SS Examples for pra of principle of virt	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sectors of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, or drawing sheets. Seminary from Structural Analysis	dimensional and geometric Z te beam and simple frame	deflection curve
Excersise for pra of beam. Torsion 618STD Technical standa arrangement of d 618SS Examples for pra of principle of virt	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sectors of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, or drawing sheets. Seminary from Structural Analysis actise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinate systems. Determination of axial forces in truss construction	dimensional and geometric Z te beam and simple frame	deflection curve
Excersise for pra of beam. Torsion 618STD Technical standa arrangement of d 618SS Examples for pra of principle of virt Geometry of cros 611SSF	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sector of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, or drawing sheets. Seminary from Structural Analysis actise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinational works for calculation of reactions of statically determinate systems. Determination of axial forces in truss construction was sections. Plane fiber polygons.	dimensional and geometric Z te beam and simple frame	deflection curve
Excersise for pra of beam. Torsion 618STD Technical standa arrangement of d 618SS Examples for pra of principle of virt Geometry of cros 611SSF	actice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross sector of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Documentation ards, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, or drawing sheets. Seminary from Structural Analysis actise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinate systems. Determination of axial forces in truss construction ess sections. Plane fiber polygons. Secondary School Physics Course	dimensional and geometric Z te beam and simple frame	deflection curve

Name of the block: Jazyky Minimal number of credits of the block: 6 The role of the block: J

Code of the group: JZ-BP-TET-22/23-DC Name of the group: Bachelor TET Full-Time 2nd Language Courses from 2022/23 Requirement credits in the group: In this group you have to gain 6 credits Requirement courses in the group: In this group you have to complete 2 courses Credits in the group: 6

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
615JZ3F	Foreign Language - French 3 Irena Veselková Irena Veselková (Gar.)	Z	3	0P+4C+10E	B Z	J
615JZ3I	Foreign Language - Italian 3	Z	3	0P+4C+10E	3 Z	J
615JZ3N	Foreign Language - German 3 Eva Rezlerová	Z	3	0P+4C+10E	B Z	J
615JZ3R	Foreign Language - Russian 3 Marie Michlová	Z	3	0P+4C+10E	B Z	J
615JZ3S	Foreign Language - Spanish 3	Z	3	0P+4C+10E	8 Z	J
615JZ4F	Foreign Language - French 4 Irena Veselková Irena Veselková (Gar.)	Z,ZK	3	0P+4C+10E	B L	J
615JZ4I	Foreign Language - Italian 4	Z,ZK	3	0P+4C+10E	3 L	J
615JZ4N	Foreign Language - German 4 Eva Rezlerová, Sv tlana Petrová, René Skalický	Z,ZK	3	0P+4C+10E	B L	J
615JZ4R	Foreign Language - Russian 4 Marie Michlová, Vilma Gottwaldová	Z,ZK	3	0P+4C+10E	B L	J
615JZ4S	Foreign Language - Spanish 4	Z,ZK	3	0P+4C+10E	B L	J

Characteristics of the courses of this group of Study Plan: Code=JZ-BP-TET-22/23-DC Name=Bachelor TET Full-Time 2nd Language Courses from 2022/23

615JZ3F	Foreign Language - French 3	Z	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ3I	Foreign Language - Italian 3	Z	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
	nmunicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ3N	Foreign Language - German 3	Z	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ3R	Foreign Language - Russian 3	Z	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ3S	Foreign Language - Spanish 3	Z	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	nmunicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ4F	Foreign Language - French 4	Z,ZK	3
	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of		
and perceptive and corr	nmunicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ4I	Foreign Language - Italian 4	Z,ZK	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ4N	Foreign Language - German 4	Z,ZK	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ4R	Foreign Language - Russian 4	Z,ZK	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	of language struct	ure knowledge
and perceptive and corr	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		
615JZ4S	Foreign Language - Spanish 4	Z,ZK	3
Grammar and stylistics.	Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement	of language struct	ure knowledge
and perceptive and com	municative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Wo	rk with (professior	nal) text and its
features. Practice of ora	I and written presentation.		

List of courses of this pass:

0440414	Name of the course	Completion	Credits
611CAL1	Calculus 1	Z,ZK	7
Sequence of real nu	mbers and its limit. Basic properties of mappings. Function of one real variable, its limit and derivative. Indefinite integral, Newton integral	egral, Riemann integr	al, imprope
	Riemann integral. First-order differential equations, linear differential equations.		
611CAL2	Calculus 2	Z,ZK	5
	differential equations and their systems, differential calculus of functions of several real variables. Riemann integral in Rn. Line an	-	4
611EMOP	Electromagnetic Field and Optics Electric field. Electric current. Magnetic field. Electromagnetic field. Optics. Basics of solid-state physics.	Z,ZK	4
611FYZ	Physics	Z,ZK	5
1	Kinematics, dynamics, Newton's laws, force fields, mechanics of continuum, thermodynamics, introduction to electrostatics and ele		
611GIE	Geometry	KZ	3
	oblique projections, linear perspective. Topographic surfaces and their orthogonal projection. Differential geometry of curves - para		
	and curvature, Frenet's trihedron. Kinematics - a curve as a trajectory of the motion, the velocity and acceleration of a particle mov		
611LA	Linear Algebra	Z,ZK	3
Vector spaces (linea	ar combinations, linear independence, dimension, basis, coordinates). Matrices and operations. Systems of linear equations and the static applications and their applications and their applications are their applications and their applications are the static applications and the static applications are the sta	-	minants and
611MDSD	their applications. Scalar product. Similarity of matrices (eigenvalues and eigenvectors). Quadratic forms and their classific	KZ	3
	Collecting and Processing of Traffic Data iples of traffic detection and data collection, specific problems of the field of traffic data. Data preprocessing and analysis for use ir	1	-
611MSP	Modeling of Systems and Processes	Z,ZK	4
	tem, external and internal system description, continuous and discrete system, mathematics as a tool, examples of formulation of diffe		-
	inear system, stationary and non-stationary system, causality. Convolutional integral. Laplace and Z transformations. Transfer func		•
	Discretization of continuous systems. System interconnection.		
611SCFZ	Seminar of Physics	Z	0
	Solving problems on kinematics, particle dynamics, dynamics of particle systems and rigid body. Continuum mechanics, thermo		
611SSF	Secondary School Physics Course	Z	0
	Basics of kinematics, dynamics, thermodynamics, electric field and magnetic field.		
611STAT	Statistics	Z,ZK	4
Definition of probabi	lity, random variable and its description, known distributions, random vector, function of random variable. Methods of point estimatior	 Testing of statistical 	hypothesis.
Regression and cor	relation, linear regression, correlation coefficient, coefficient of determination, the general linear model, statistical inference in linear	regression, analysis	of variance,
	multiple regression, the use of matrices in regression.		
611V21D		_	-
611X31D	Project 1 DOS	Z	2
611X32D	Project 2 DOS	Z	2
611X32D 611X33D	Project 2 DOS Project 3 DOS	Z Z	2 4
611X32D 611X33D 611Y1BK	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems	Z Z KZ	2 4 2
611X32D 611X33D 611Y1BK	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels,	Z Z KZ detection of transmis	2 4 2
611X32D 611X33D 611Y1BK Safe communication	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50	Z Z KZ detection of transmis 0159.	2 4 2 ssion errors,
611X32D 611X33D 611Y1BK Safe communication 611Y1PV	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming	Z KZ detection of transmis 0159. KZ	2 4 ssion errors, 2
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the prob	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints.	Z KZ detection of transmis 0159. KZ Computation of effici	2 4 2 ssion errors, 2 ent solution.
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering	Z KZ detection of transmis 0159. KZ Computation of efficie	2 4 2 ssion errors 2 ent solution 2
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem	Z KZ detection of transmis 0159. KZ Computation of efficie	2 4 2 ssion errors, 2 ent solution. 2
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage.	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma	2 4 2 ssion errors 2 ent solution 2 I techniques
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ	2 4 2 ssion errors 2 ent solution 2 I techniques
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra	2 4 2 ssion errors 2 ent solution 2 I techniques ee, shortest
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra	2 4 2 ssion errors 2 ent solution 2 I techniques ee, shortest
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and path problem, Euleri 611Y1ZM	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ	2 4 2 ssion errors 2 ent solution 2 I techniques ee, shortest d algorithms
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and path problem, Euleri 611Y1ZM	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ	2 4 2 ssion errors 2 ent solution 2 I techniques ee, shortest d algorithms
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and path problem, Euler 611Y1ZM To explain the princi	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming uple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging.	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements	2 4 2 ssion errors 2 ent solution 2 I techniques ee, shortest d algorithms 2 operations
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and path problem, Euler 611Y1ZM To explain the princi 612DOSI	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming iple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 s operations, 3
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the problection 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Euler 611Y1ZM To explain the princi 612DOSI Ways of data colled	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory It terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming ple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations tion in road transport. Traffic surveys. Automatic traffic counting. Preparation and implementation of traffic survey. Description of in	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 s operations, 3 focused on
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the problection 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Euler 611Y1ZM To explain the princi 612DOSI Ways of data colled	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming iple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations stion in road transport. Traffic survey. Automatic traffic counting. Preparation and implementation of traffic survey. Description of in s from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 s operations, 3 focused on
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of sc 611Y1TG Basic concepts and path problem, Euler 611Y1ZM To explain the princi 612DOSI Ways of data collec practical example	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming uple of algorithmization, flow charts, description of MATLAB networks, optimization and program code debugging. Traffic Surveys and Simulations tion in road transport. Traffic survey. Automatic traffic counting. Preparation and implementation of traffic survey. Description of in s from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic procedure, calibration. Processing of a simple transport model based on real data.	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 ee, shortest d algorithms 2 s operations, focused on del design
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probl 611Y1SI Basic concepts of so 611Y1TG Basic concepts and path problem, Euler 611Y1ZM To explain the princi 612DOSI Ways of data collec practical example 612MDE	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory It terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming tiple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations tion in road transport. Traffic surveys. Automatic traffic courting. Preparation and implementation of traffic survey. Description of in s from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic procedure, calibration. Processing of a simple transport model based on real data. Transport Models and Transport Excesses	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 ee, shortest d algorithms 2 s operations, focused on del design 3
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probled 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Eulerice 611Y1ZM To explain the princise 612DOSI Ways of data collect practical example 612MDE Parameters of the to the scond path problem	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming uple of algorithmization, flow charts, description of MATLAB networks, optimization and program code debugging. Traffic Surveys and Simulations tion in road transport. Traffic survey. Automatic traffic counting. Preparation and implementation of traffic survey. Description of in s from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic procedure, calibration. Processing of a simple transport model based on real data.	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 coperations, 5 focused on del design 3 s. Quality of
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probled 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Eulerice 611Y1ZM To explain the princi 612DOSI Ways of data collect practical example 612MDE Parameters of the to the scond path problem	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming Item of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory Iterminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ina path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming Iter Surveys and Simulations Traffic Surveys and Simulations Iter of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization a	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 coperations, 5 focused on del design 3 s. Quality of
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probled 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Eulerice 611Y1ZM To explain the princise 612DOSI Ways of data collect practical example 612MDE Parameters of the to the scond path problem	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming leam of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming Itel of algorithmization, flow charts, description of MATLAB environment and its settings. MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations Traffic Surveys and Simulations	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 coperations, 5 focused on del design 3 s. Quality of
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probled 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Eulerice 611Y1ZM To explain the principath problem, Eulerice 612DOSI Ways of data collect practical example 612MDE Parameters of the t transport and its a 612MKOD	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems n and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coeficients of linear constraints. Transportation Software Engineering oftware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r for their solving. Computational complexity, dealing with NP-complete problems, heuris Foundation of MATLAB Programming uple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys and Simulations tion in road transport. Traffic surveys. Automatic traffic counting. Preparation and implementation of traffic survey. Description of is s from real measurements. Methods of data processing and evaluation. Principles of simulation, SW environment for creating traffic procedure, calibration. Processing of a simple transport model based on real data. Transport Models and Transport Excesses raffic flow and methods for their measurement. Models of the traffic flow, communications load, line and urban systems. Theory of seessment. Statistical characteristics of transport. Transport Excesses, their analysis, the causes, identify and minimize the consec safety and fluency.	Z KZ detection of transmis 0159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra e and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic models. Traffic models. Z,ZK queues, shock wave queuces. Improving context Z,ZK	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 ee, shortest d algorithms 2 s operations, focused on del design s. Quality of of transport 5
611X32D 611X33D 611Y1BK Safe communication 611Y1PV Solution to the probled 611Y1SI Basic concepts of sconcepts of sconcepts and path problem, Euleric 611Y1ZM To explain the princi 612DOSI Ways of data collect practical example 612MDE Parameters of the t transport and its a 612MKOD City and suburba	Project 2 DOS Project 3 DOS Error Detection Codes for Interlocking Systems and methods for its assuring. Safety codes linear codes, cyclic codes, BCH codes, Reed-Solomon codes. Transmission channels, probability of undetected error. Design and assessment of detection codes; requirements of the European standard EN 50 Parametrical and Multicriterial Programming lem of linear programming with a parameter in objective function, on right sides and in the matrix of coefficients of linear constraints. Transportation Software Engineering offware engineering, ranging from domain analysis, requirement analysis and software architectures to analyses, design and implem and practical usuage. Graph Theory I terminology of graph theory, graph representation. Problems of graph theory, problem instance. Graph search algorithms, trees, r ian path, bipartite graph matching, flow networks, circulations, critical path method, traveling salesman problem. Problem of existence for their solving. Computational complexity,dealing with NP-complete problems, heuris Foundation of MATLAB Programming tiple of algorithmization, flow charts, description of MATLAB environment and its settings, MATLAB help, mathematical operators, m control flow, inputs and outputs, graphics, optimization and program code debugging. Traffic Surveys. Automatic traffic counting. Preparation and implementation of traffic survey. Description of in s from real measurements. Methods of data processing and evaluation. Principles of simulations, SW environment for creating traffic flow and methods for their measurement. Models and Transport Excesses raffic flow and methods for their measurement. Models of the traffic flow, communications load, line and urban systems. Theory of sesesment. Statistical characteristics of transport. Transport Excesses, their analysis, the causes, identify and minimize the consec safety and fluency. City Rail Transport	Z KZ detection of transmis D159. KZ Computation of effici KZ nentation using forma KZ minimum spanning tra and optimization and KZ atrices and elements Z,ZK dividual approaches ic models. Traffic mod Z,ZK queues, shock wave quences. Improving c Z,ZK onstruction of tram lin	2 4 2 ssion errors, ent solution. 2 I techniques ee, shortest d algorithms 2 ee, shortest d algorithms 2 s operations, focused on del design 3 s. Quality of of transport 5 nes. Tram

612POSD Assessment of Transport Structures EIA process - historical context, impact and variants, analysis of individual phases of EIA process, SEA, legislative framework in the Czech Republic, EU of EU directives, public participation, process in practice. Methods of assessing the effects of transport structures on the environment. SWOT analysis. Multicrite of transport structures, TUKP method. Risk analysis. Landscape. 612PPOK Designing Roads, Highways and Motorways Definition, types, ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard sprange of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety or intersections. 612PRMK Urban Road Traffic and Design Composition of urbar road, elements and routes for traffic, pedestrian and cycling transport, projection of traffic, organization and regulation of trasp. programization of traffic area, induction of traffic, organization and regulation of transport equipment. Freight transport equipment. Branch lines and railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reforms and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic of crossroads and intersections. Structure	KZ speed. Route in r device. Crossing Z,ZK sposal, roundabo port. KZ stations. Format	assessmer 3 ural areas. s, junctions 5 uts, calmin
EU directives, public participation, process in practice. Methods of assessing the effects of transport structures on the environment. SWOT analysis. Multicities of transport structures, TUKP method. Risk analysis. Landscape. 612PPOK Designing Roads, Highways and Motorways Definition, types, ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard spectro of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety or intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proport of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport equipment. Freight transport equipment. Branch lines and railway stations 612PUSS Organization Disposition of Railway Stations 612PUSS Organization with regard to its disposition. Railway station documentations in the Czech Republic reference stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference stations 612SDK Highways, Motorways and Intersections Reserve stations network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	KZ speed. Route in rr device. Crossing Z,ZK sposal, roundabo port. KZ stations. Format ailway network.	assessmer 3 ural areas. s, junctions 5 uts, calmin
of transport structures, TUKP method. Risk analysis. Landscape. 612PPOK Designing Roads, Highways and Motorways Definition, types, ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard spreader of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety of intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proport of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport equipment. Freight transport equipment. Branch lines and railway stations 612PUSS Organization Disposition of Railway station documentations in the Czech Republic references and railway station documentations in the Czech Republic references 612SDK Highways, Motorways and Intersections Reserve stations network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	KZ speed. Route in rr device. Crossing Z,ZK sposal, roundabo port. KZ stations. Format ailway network.	3 ural areas. s, junctions 5 uts, calmin
612PPOK Designing Roads, Highways and Motorways Definition, types, ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard spreader of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety or intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety progof traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport of traffic. Passenger transport equipment. Freight transport equipment. Branch lines and railway station documentations in the Czech Republic reference stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference of traffic States of traffic station. Passenger transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	speed. Route in r device. Crossing Z,ZK posal, roundabo port. KZ stations. Format ailway network.	ural areas. s, junctions 5 uts, calmin
Definition, types, ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard spreaded of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety or intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proportion of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport of traffic. Passenger transport equipment. Freight transport equipment. Branch lines and railway station documentations in the Czech Republic reference to the station. Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference to the stations. 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	speed. Route in r device. Crossing Z,ZK posal, roundabo port. KZ stations. Format ailway network.	ural areas. s, junctions 5 uts, calmin
Range of vision for stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safety of intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proportion of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport of traffic. Passenger transport equipment. Freight transport equipment. Branch lines and railway station documentations in the Czech Republic receives stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic receives and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	device. Crossing Z,ZK posal, roundabo port. KZ stations. Format ailway network.	s, junctions
intersections. 612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety progotion of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport of traffic. 612PUSS Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference of the station of the station of traffic station. 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	Z,ZK posal, roundabo port. KZ stations. Format ailway network.	5 uts, calmin
612PRMK Urban Road Traffic and Design Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proportion of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport 612PUSS 612PUSS Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference of 12SDK Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic output.	posal, roundabo port. KZ stations. Format ailway network.	uts, calmin
Composition of urban road, elements and routes for traffic, pedestrian and cycling transport, projection of intersections, traffic lights and its traffic safety proportion of traffic, precaution for blind & amp; partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transport 612PUSS 612PUSS Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic rafic 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	posal, roundabo port. KZ stations. Format ailway network.	uts, calmin
of traffic, precaution for blind & partially-sighted, parking, traffic area, induction of traffic, organization and regulation of transp 612PUSS Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic rafic for the station of traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic rafic for the station of the statin of the station of the station of the statio	KZ stations. Format ailway network.	
612PUSS Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic ra 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traffic	KZ stations. Format ailway network.	-
Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic ra 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traf	stations. Format ailway network.	
Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic ra 612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traf	ailway network.	3
612SDK Highways, Motorways and Intersections Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traf	-	ion yards.
Roads and motorways network, transport output. Types of direction curves. Hairpin bend. Stopping sight distance and overtaking sight distance. Levels of traf	/ / K	
	,	4
		-
	or pavement or	roads and
motorways. Road engineering structures. Assessment of route alternatives.	7 71/	
612VHD Public Transport Importance of public transport, transport research, evaluation, planning of lines routes and territory operation, planning of operation parameters, prepara	Z,ZK	5
	•	
conceptions, operation-technology and operation-economically conditions of planning of operation conceptions, planning of operation conception, planing a prepare of infrastrukture (route, stops), preference of public transport, financing.		i imetables
	Z	2
612X31D Project 1 DOS		2
612X32D Project 2 DOS	Z	2
612X33D Project 3 DOS	Z	4
612Y1AE Applied Ecology	KZ	2
General ecology - ecological concepts and principles, ecosystem, ecological factors, energy flow through the ecosystem. Application of knowledge within		-
ecology. Landscape ecology - origin and historical development. Landscape definition and classification. Success. Traffic constructions in the countrysid	le. Landscape ar	nd nature
protection. Applied ecology.		
612Y1C1 Designing Roads in Civil 3D I	KZ	2
The course is devoted to the traffic buildings design field, specifically the design of roads as such, by the means of a 3D software. Students go through the	he complete des	sign of this
particular linear building, from the initial situation, over the longitudinal section, to the model and work sections and the cubic capacity calculation. The co	ourse also includ	les a basic
explanation of the traffic building design in the real-life profession.		
612Y1C2 Designing Roads in Civil 3D II	KZ	2
The course is devoted to the traffic buildings design field, specifically the design of roads as such, by the means of a 3D software. Students go through the design of roads as such, by the means of a 3D software.	he complete des	sign of this
particular linear building, from the initial situation, over the longitudinal section, to the model and work sections and the cubic capacity calculation. The pre-	eviously acquire	d skills are
improved and developed. Students learn to design intersections.		
612Y1DS Project Documentation in Practice	KZ	2
Project documentation creating. Project documentation types. Support materials for project documentation creating. Building permit obtaining process. Bu	udget and pricing	g. Practical
creation of some project documentation parts.		1
612Y1HD Traffic Noise	KZ	2
Acoustic introduction, basic terms, quantities. Basics of physiological acoustic, noise impacts on human body. Acoustic legislation, standarts, regulations.		
area, principles of urban acoustic, noise transmission, soundproofing. Types of noise sources in area. Determination of acoustic situation in the area of	interest. Method	dology of
computing and measurement of transport noise. Acoustic studies, measuring protocol.		1
612Y1KN Combined Transportation	KZ	2
Combined transport strategy and legislation. Load units. Means of transport in combined transport. Combined transport systems. Transshipping areas. M	/lultimodal logisti	c centres.
612Y1KP Communication and Promotion of Transport Projects	KZ	2
612Y1KP Communication and Promotion of Transport Projects	media, the public	c on social
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the relations are completed as the power of public opinion.	media, the public	c on social
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the retworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for	media, the public	c on social
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the r networks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing.	media, the public r crisis communic KZ	c on social cation. The
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the relations and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport	media, the public r crisis communic KZ ayout and design	c on social cation. The 2 parameter
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the relations and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la	media, the public r crisis communic KZ ayout and design	c on social cation. The 2 parameter
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the renetworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings with the stopped streets.	media, the public r crisis communic KZ ayout and design	c on social cation. The 2 parameter
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the renetworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists.	media, the publi r crisis communio KZ ayout and design with other transp KZ	c on social cation. The 2 parameter ort modes, 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the renetworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport	media, the public r crisis communic KZ ayout and design with other transpo- KZ s protection and	c on social cation. The 2 parameter ort modes, 2 assessmer
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the reneworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport	media, the public r crisis communic KZ ayout and design with other transpo- KZ s protection and	c on social cation. The 2 parameter ort modes, 2 assessmer
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the reneworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of assessment	media, the public r crisis communic KZ ayout and design with other transpo- KZ s protection and	c on social cation. The 2 parameter ort modes, 2 assessmer
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the reneworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of asses the environment.	media, the public r crisis communic KZ ayout and design with other transport KZ is protection and ssment of traffic	c on social cation. The parameter ort modes, 2 assessmer buildings of 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the reneworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of asses the environment. 612Y1PU Organization Disposition of Railway Stations	media, the public r crisis communic KZ ayout and design with other transpo- KZ s protection and ssment of traffic KZ stations. Format	c on social cation. The parameter ort modes, 2 assessmer buildings of 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the reneworks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of asses the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone station.	media, the public r crisis communic KZ ayout and design with other transpo- KZ s protection and ssment of traffic KZ stations. Format	c on social cation. The parameter ort modes, 2 assessmer buildings of 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the networks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of assess the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reserves the stations.	media, the public r crisis communic KZ ayout and design with other transpo- KZ sprotection and ssment of traffic KZ stations. Format ailway network. KZ	c on social cation. The 2 parameter ort modes, 2 assessmer buildings of 2 ion yards. 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the networks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of asses the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic reference of the assession. Railway Lines Reconstruction	media, the public r crisis communic KZ ayout and design with other transpo- KZ sprotection and ssment of traffic KZ stations. Format ailway network. KZ re maintenance, s	c on social cation. The 2 parameter ort modes, 2 assessmer buildings of 2 ion yards. 2
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the networks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of assess the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic railway line operational, maintaining lines and stations, geometrical alignment of railway line, vehicles for railway superstructure and substructure and	media, the public r crisis communic KZ ayout and design with other transpo- KZ sprotection and ssment of traffic KZ stations. Format ailway network. KZ re maintenance, s	c on social cation. The 2 parameter ort modes, 2 assessmer buildings of 2 ion yards.
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the networks and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of assess the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway traffic inside industrial company areas. Zone Reserve stations. Technology of work in railway station with regard to its disposition. Railway station documentations in the Czech Republic railway line operational, maintaining lines and stations, geometrical alignment of railway line, vehicles for railway superstructure and substructure	media, the public r crisis communic KZ ayout and design with other transpo- KZ sprotection and ssment of traffic KZ stations. Format ailway network. KZ re maintenance, s KZ	c on social cation. The 2 parameter ort modes, 2 assessmer buildings or 2 ion yards.
612Y1KP Communication and Promotion of Transport Projects Fundamentals of Public Relations and the power of public opinion. Work and tasks of PR department and press spokesperson. Communication with the relevences and beyond. Communication strategy of transport projects. Systematic goodwill building. Crisis situations in communication and preparation for influence of political marketing and political PR on transport projects. Lobbing. 612Y1PC Pedestrian and Cycling Transport Routes for pedestrians. Pedestrian crossings. Modifications for blind, dim-sighted and disabled people. Design of cycle routes network. Ways of cycle route la for cyclists. Separation of cyclists from other transport modes. Cycle tracks and its design - one way streets, reserved traffic lanes, bus stops, crossings w crossroads. Traffic signs and road marking for cyclists. 612Y1PD Assessment of Transport Assessment of transport structures, the EIA process. Multicriteria assessment methods, risk analysis, SWOT analysis. Landscape character, possibilities of its transport structures on the landscape. Rating fragmentation and landscape connectivity in the preparation of linear structures. Practical examples of asses the environment. 612Y1PU Organization Disposition of Railway Stations Connecting station. Passenger transport equipment. Freight transport equipment. Branch lines and railway station documentations in the Czech Republic re Railway Lines Reconstruction 612Y1PU Railway Lines Reconstruction Keeping railway line operational, maintaining lines and stations, geometrical alignment of railway line, vehicles for railway superstructure an	media, the public r crisis communic KZ ayout and design with other transpo- KZ sprotection and ssment of traffic KZ stations. Format ailway network. KZ re maintenance, s KZ ent of road network	c on social cation. The 2 parameter ort modes, 2 assessmer buildings of 2 ion yards. 2 scheduling 2 scheduling 2 ork, short,

612Y1VR	Public Transport in Cities and Regions	KZ	2
	d political pillars of public transport. Accessibility of public transport. Transport demand management and directional coordination of line	•	-
Basic operating p	parameters and transport variations. Types of lines according to their routing and basic operating parameters. Time coordination of line	s. Operational traf	fic control.
	Organization of tram operation in Prague. Tram safety.		
612Y1ZU	Principles of Urbanism	KZ	2
Survey on history	v of city and settlement building. Functional components and their mutual relations (working, living, recreation, transportation). Spacial	arrangement of se	ettlements.
	Types of towns or cities with a certain prevailing function, forms of their development. Brief overview of land-use planning.		
612ZAR	Introduction to Architectural Design	Z	3
	d architecture of traffic systems. Bus and trolley-bus transport. Tramway and town tracks. Design of vehicles. Subway. Railway transport	t. Railwav stations	. Local
	communications. International airports.	,,	
612ZELP	Railway Operation	Z,ZK	4
	way transport. Railway vehicles. Railway signals and signal devices. Railway traffic organisation and operation. Simplified railway traffic		
Legislation in fail	brakes. Railway vehicles marking. Operation intervals. Theoretical graph of train running.		ay verificies
040770		7 71/	4
612ZTS	Railway Lines and Stations	Z,ZK	4
Rail transport. R	ailway track geometry parameters. Route layout of railway lines. Railway line construction - railway substructure and superstructure. Sp	-	way imes.
	Railway control systems in relation to infrastructure. Operating and carriage points. Railway lines net and category. Traction in rail tr	-	
612ZYDI	Introduction to Transportation Engineering	Z,ZK	2
Role of transporta	tion in land-use planning. Basic terms in transportation engineering. Traffic survey and traffic prognosis. Introduction to topic of roads, put	ublic mass transpo	ort. Negativ
	impacts of transportation to environment and safety.		1
614ASD	Algorithm and Data Structures	KZ	3
Students will be fa	miliarized with selected basic and derived data structures, algorithms, their properties and their design procedure. Students will analyze	problems, propose	e theoretica
solutions to the s	set task and the resulting algorithm write by means of flowcharts, practice in reading algorithms recorded by means of the flowchart an	d use the basics of	of Boolean
	algebra with forming the conditions for the algorithms.		
614DATS	Database Systems	KZ	2
Basic concepts	of database systems, conceptual model, relational data model, the principles of normal forms, relational database design, security and	d integrity of data,	database
	queries, relational algebra, SQL language, client / server, multilayer architectures, distributed database systems. Access to data via t		
614DPK	Digital Support for Designing of Roads and Highways	Z	0
onent	Seminars possibilities of technical processing problems focused on designing of roads and highways.	-	Ŭ
614DZT	Digital Support for Railway Lines	Z	0
014021	Seminars possibilities of technical processing problems solved in the field of railway lines.	Z	0
		1/7	0
614KSP	Constructing with Computer Aid	KZ	2
	rm determination. CAD role in projecting system model. Existing CAD systems on Czech market. Project creation, basic common work	k rules in graphic a	
and CA systems	. Co-ordinated systems, CAD environment skill (basics of constructing, dimensioning, modifications, user interfaces, projecting possibi	ilites, AutoCAD en	vironment
	profiles, drawings with raster foundaments).		
614PODP	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting	KZ	3
614PODP Overview of CAx a	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data	KZ a exchange). Adva	3 nced blocks
614PODP Overview of CAx a	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition	KZ a exchange). Adva	3 nced block
614PODP Overview of CAx a modification (attrib	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data	KZ a exchange). Adva n curve, cross-and	3 nced block
614PODP Overview of CAx a	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition	KZ a exchange). Adva	3 nced block
614PODP Overview of CAx a modification (attrib 614PRG	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling.	KZ a exchange). Adva a curve, cross-and KZ	3 nced block longitudina 2
614PODP Overview of CAx a modification (attrib 614PRG	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming	KZ a exchange). Adva a curve, cross-and KZ	3 nced block longitudina 2
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity.	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle	3 nced block longitudina 2 es, arrays,
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z	3 nced block longitudina 2 es, arrays, 2
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z	3 nced block longitudina 2 es, arrays, 2 2
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X33D	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z	3 nced block longitudina 2 es, arrays, 2 2 4
614PODP Dverview of CAx a nodification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X33D 614Y1AV	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z KZ	3 nced block longitudina 2 es, arrays, 2 2 4 2
614PODP Diverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X33D 614Y1AV Advanced modifica	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z KZ ce Warp objects. A	3 nced block longitudina 2 es, arrays, 2 2 4 2 4 2 Atmospheri
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X33D 614Y1AV Advanced modifica and other effec	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation	KZ a exchange). Adva n curve, cross-and KZ s, conditions, cycle Z Z Z KZ ce Warp objects. A using Inverse Kin	3 nced block longitudina 2 es, arrays, 2 2 4 2 Atmospheri eematics.
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y33D 614Y1AV Advanced modifica and other effec 614Y1BE	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport	KZ a exchange). Adva n curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ	3 nced block longitudin 2 es, arrays, 2 2 4 2 Atmospher ematics. 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614X33D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica	3 nced block longitudin 2 es, arrays, 2 4 2 4 2 Atmospher ematics. 2 I knowledg
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems and systems).	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica	3 nced block longitudina 2 es, arrays, 2 4 2 4 xtmospheri ematics. 2 I knowledg
614PODP Diverview of CAx a nodification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614X33D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica	3 nced block longitudin 2 es, arrays, 2 4 2 4 2 Atmospher ematics. 2 I knowledg
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614X33D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems and systems).	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica	3 nced block longitudina 2 es, arrays, 2 4 2 4 xtmospheri ematics. 2 I knowledg
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transport stops, terminal buildings, vehicles, public transport, information and orientation systems are Theoretical knowledge will be supplemented by practical examples.	KZ a exchange). Adva n curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ	3 nced block longitudin 2 es, arrays, 2 2 4 2 Atmospher rematics. 2 I knowledg technolog
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems and spa troads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems and also for transport, information and orientation systems and Theoretical knowledge will be supplemented by practical examples.	KZ a exchange). Adva n curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris re	3 nced block longitudin 2 es, arrays, 2 2 4 2 Atmospher rematics. 2 I knowledg technolog 2 ecognition
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reless accessible public transportation in terms of architectural barriers and also for transportation reaction systems are Theoretical knowledge will be supplemented by practical examples. Biometric Methods arms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, hard	KZ a exchange). Adva n curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris re	3 nced block longitudin 2 es, arrays, 2 2 4 2 Atmospher rematics. 2 I knowledg technolog 2 ecognition
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v onment roads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems at theoretical knowledge will be supplemented by practical examples. Biometric Methods erms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, near an enthod, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral r in transport applications, safety and risks of biometric technologies.	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris methods, the use of	3 nced block longitudin 2 es, arrays, 2 4 2 Atmospher rematics. 2 I knowledg technolog 2 ecognition of biometric
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming ppment, methods of structured programming, high-level programming techniques, complexity. Project 1 DOS Project 1 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v onment roads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems at theoretical knowledge will be supplemented by practical examples. Biometric Methods rms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport applications, safety and risks of biometric technologies. Computer Hardware	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris methods, the use of KZ	3 nced block longitudina 2 es, arrays, 2 4 2 4 2 Atmospheri rematics. 2 I knowledg technolog technolog f biometric
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transitor section). Basics of 3D modelling. Programming prement, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems at Theoretical knowledge will be supplemented by practical examples. Biometric Methods rms, authentication methods, principles and performance measurement of biometric technologies. Biometric Methods rms, authentication methods, principles and performance measurement of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris methods, the use of KZ	3 nced block longitudin 2 es, arrays, 2 4 2 4 2 Atmospher rematics. 2 I knowledg technolog 2 ecognition of biometric
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW Computer archit	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to database). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization tions and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reless accessible public transport stops, terminal buildings, vehicles, public transport, information and orientation systems a Theoretical knowledge will be supplemented by practical examples. Biometric Methods arms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport applications, safety and risks of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem.	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C Will gain theoretica and transportation KZ mageometry, iris methods, the use of KZ warts designing - c	3 nced block longitudina 2 es, arrays, 2 4 2 Atmospheri ematics. 2 I knowledg technolog ecognition, f biometric 2 ontrollers,
614PODP Diverview of CAx a nodification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW Computer archit 614Y1MP	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization tions and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport rless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v onment roads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems are Biometric Methods rms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport applications, safety and risks of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem.	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris methods, the use of KZ warts designing - co KZ	3 nced block longitudina 2 es, arrays, 2 4 2 Atmospher rematics. 2 I knowledg technolog 2 ecognition of biometric 2 ontrollers, 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 1 DOS Project 3 DOS Animation and Visualization tions and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reas accessible public transport stops, terminal buildings, vehicles, public transport, information and orientation systems are Theoretical knowledge will be supplemented by practical examples. Biometric Methods rems, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport applications, safety and risks of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Modeling Complex Assemblies and assemblies, sheet metal parts modelling, welded assemblies, pipel	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ nd geometry, iris methods, the use of KZ warts designing - co KZ	3 nced block longitudina 2 es, arrays, 2 4 2 Atmospheri rematics. 2 I knowledg technolog 2 ecognition, of biometric 2 ontrollers, 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 1 DOS Project 2 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reas accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v onment roads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems a Theoretical knowledge will be supplemented by practical examples. Biometric Methods errms, authentication methods, principles and performance measurement of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, i/O subsystem. Modeling Complex Assemblies and assemblies, sheet metal parts modelling, welded assemblies, pipel Photorealistic output rendering - physical and material properties, lighting sources. MKP - visual example.	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z KZ ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ ind geometry, iris methods, the use of KZ warts designing - co KZ ines, and distributi	3 nced block longitudina 2 es, arrays, 2 4 2 Atmospher nematics. 2 I knowledg technolog ecognition of biometric 2 ontrollers, 2 ion lines.
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro-	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, date utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming techniques, complexity. Project 1 DOS Project 1 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, animation Barrierless Transport reless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems are Theoretical knowledge will be supplemented by practical examples. Biometric Methods Computer Kethods Theoretical knowledge will be supplemented by practical examples. Computer Hardware Computer Hardware Computer Hardware Computer Hardware Modeling Complex Assemblies and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vien patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport application using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Modeling Complex Assemblies and material properties, lighting sources. MKP - visual example. Object - oriented programming FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Distributer realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Distrest realization using FPGA. In detail,	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C C C C C C C C C C C C C C C C C	3 nced block longitudin 2 es, arrays, 2 4 2 Atmospher ematics. 2 I knowledg technolog ecognition of biometric 2 ontrollers, 2 ion lines. 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro- 614Y1OJ Objective Think	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming languages, basics of C programming languages (types, variables functions), programming lenchniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization its, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation sectes in a data data data data data data data d	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C C C C C C C C C C C C C C C C C	3 nced block longitudin 2 es, arrays, 2 4 2 Atmospher matrics. 2 I knowledg technolog ecognition of biometric 2 ontrollers, 2 Methods,
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro- 614Y1OJ Objective Think	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, date utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming techniques, complexity. Project 1 DOS Project 1 DOS Project 3 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, animation Barrierless Transport reless accessible public transportation in terms of architectural barriers and also for transport, information and orientation systems are Theoretical knowledge will be supplemented by practical examples. Biometric Methods Computer Kethods Theoretical knowledge will be supplemented by practical examples. Computer Hardware Computer Hardware Computer Hardware Computer Hardware Modeling Complex Assemblies and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vien patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral m in transport application using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Modeling Complex Assemblies and material properties, lighting sources. MKP - visual example. Object - oriented programming FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Distributer realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Distrest realization using FPGA. In detail,	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C C C C C C C C C C C C C C C C C	3 nced block longitudin 2 es, arrays, 2 4 2 Atmospher matrics. 2 I knowledg technolog ecognition of biometric 2 ontrollers, 2 Methods,
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro- 614Y1OJ Objective Think	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming languages, basics of C programming languages (types, variables functions), programming lenchniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization its, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation sectes in a data data data data data data data d	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C C C C C C C C C C C C C C C C C	3 nced block longitudina 2 es, arrays, 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 2 4 2 2 2 2 2 4 2 2 2 2 2 4 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to etina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro- 614Y1OJ Objective Think	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming prent, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Project 3 DOS Animation and Visualization ations and modelling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport reless accessible public transportation in terms of architectural barriers and also for transportation-technological point of view. Students v onment roads, railway stations, public transport stops, terminal buildings, vehicles, public transport, information and orientation systems and theoretical knowledge will be supplemented by practical examples. Biometric Methods Theoretical knowledge will be supplemented by practical examples. Computer Hardware ecture, basics of logical circuits design and their realization, safety and risks of biometric technologies. har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometric systems, overview of biometric technologies. Computer Hardware ecture, basics of logical circuits design and their realization using FPGA. In detail, description of computer architecture and separate p arithmetic and logical units, I/O subsystem. Modeling Complex Assemblies and assemblies and assemblies, sheet metal parts modelling, welded assemblies, pipel Photorealistic output rendering - physical and material properties, lighting sources. MKP -	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z C C C C C C C C C C C C C C C C C	3 nced block longitudina 2 es, arrays, 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 2 4 2 2 2 2 2 4 2 2 2 2 2 4 2
614PODP Overview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro 614Y1OJ Objective Think Reference Data Ty 614Y1OP	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transition section). Basics of 3D modelling. Programming pment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization ations and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation Barrierless Transport refess accessible public transportation in terms of architectural barriers and also for transport and orientation systems is Theoretical knowledge will be supplemented by practical examples. Biometric Methods rms, authentication methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein patterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral in transport applications, safety and risks of biometric technologies. Modeling Complex Assemblies and Models in Parametric Modeller gramming - tools and methodology of working subassemblies and assemblies, sheet metal parts modelling, welded assemblies, pipel Photorealistic cutput rendering - physical and material properties, lighting sources. MKP - visual example. Digitations, and welde programming tables and advector classes, exceptions, collections, generics, lam ertinetic and logical units, I/O subsystem. Modeling Complex Assemblies and Amodelis in Parametric Modeller gramming - tools and methodology of working subassemblies a	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z Ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ mathods, the use of KZ warts designing - co KZ ines, and distribution KZ s), Basic Object abda expressions, KZ	3 nced block longitudina 2 es, arrays, 2 4 2 4 2 4 2 4 2 4 2 2 4 1 knowledg technology 2 ecognition, of biometric 2 ecognition, of biometric 2 ontrollers, 2 1 knowledg, technology 2 ecognition, of biometric 2 ontrollers, 2 2 1 2 1 2 2 1 2 2 1 2 2 1 2 2 2 2 2
614PODP Dverview of CAx a modification (attrib 614PRG Algorithm develo 614X31D 614X32D 614X32D 614Y1AV Advanced modifica and other effec 614Y1BE The issue of barrie of barrierless envir 614Y1BM Basic biometric to retina recognition 614Y1HW Computer archit 614Y1MP Assemblies pro 614Y1OJ Objective Think Reference Data Ty 614Y1OP Distributions. In	profiles, drawings with raster foundaments). Computer Aid of Transportation Projecting of polication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, data ues, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (dotoidic transition section). Basics of 3D modelling. Programming gnugages, basics of C programming languages (types, variables functions), programming techniques, complexity. Project 1 DOS Project 2 DOS Animation and Visualization tions and modeling of NURBS, Patch objects, selection of objects (according to filter and properties). 3D Studio MAX systems and Spa ts, rendering filters, Motion blur, advanced animations, Motion panel. Modeling for morphing and animation, bone formation, animation patrierless Transport ress accessible public transport stops, terminal buildings, vehicles, public transportation-technological point of view. Students v methods, principles and performance measurement of biometric systems, overview of biometric technologies, har methods, principles and performance measurement of biometric systems, overview of biometric technologies, har method, 2D and 3D face recognition, vein paterns on the wrist, ear biometrics, fingerprint recognition, skin spectroscopy, behavioral in transport applications, safely and risks of biometric technologies. May regramming transport applications, anders and Assemblies and Assemblies, pible Photorealistic outgit units, <i>UO</i> subsystem. Modeling Complex Assemblies and Assemblies and Assemblies, sheet metal parts modelling, welded assemblies, pipel Photorealistic outgit and material properties, lighting sources. MKP - visual example. Object - oriented programming and assemblies, sheet metal parts modelling, welded assemblies, speak for a functions functions - Stratic dasses, Attributes, Access Modifiers, Methods and Overloading, Special Methods (Constructors, Getters / Setters pes, Inh	KZ a exchange). Adva a curve, cross-and KZ s, conditions, cycle Z Z Z Ce Warp objects. A using Inverse Kin KZ will gain theoretica and transportation KZ and geometry, iris r nethods, the use of KZ warts designing - co KZ ines, and distributi KZ s), Basic Object abda expressions, KZ s and processess.	3 nced block longitudina 2 es, arrays, 2 4 2 4 2 4 2 4 2 4 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

614Y1P2	Computer Aid of Transportation Projecting 2	KZ	2
	pplication for transportation projecting aid. AutoCAD environment possibilities of basic tasks automatizing (programming, scripting, dat		
modification (attrib	utes, relation to databases). Work in projecting group, external references. Basic tasks for cummunication projecting (clotoidic transitio	n curve, cross-and	longitudinal
0440/454	section). Basics of 3D modelling.	1/7	0
614Y1PA	3D Modeling in AutoCAD	KZ	2
Work in 3D non-p	parametric modeller (AutoCAD) environment, scenes rendering, creation of planar and volumetric objects, user setup creation, object connected with external database. Basic definition of work with lights, materials and reflexes. Models presentation.	data creation, wor	k with data
614Y1PG	Computer Graphics	KZ	2
	graphic and possibilities of their editing and mutual conversion. Use of individual types according to character of work. Work with editi level scope) using layers, DPI, colors. Basics of digital photography, scanning and computer technology like monitors and graphic	ing programs (with	1
614Y1PI	Corporate Information System	KZ	2
Data-information	n-knowledge, components of information system, syntatic and semantic sense of data, structure of corporate information system, pa	rticular information	system
(personalistic, prod	luction, storage, etc.), corporate information politic and information control, risks of information system operation, legal environment of state information system, information system security, data protection, safety politics.	f information syster	m operation,
614Y1PJ	C Programming Language	KZ	2
	guage. Preprocessor, basics of the C language (data types, syntax, commands), functions, pointes, dynamical memory allocation, stri	1	1
	Implementations of abstract data types (FIFO, LIFO, list), programming techniques (sorting, searching, recursion), using bitwise or	-	
614Y1PZ	Advanced Data Processing in Spreadsheets	KZ	2
Students will be	familiar with principles of working in a spreadsheet. Graphic layout of the table appearance, formatting of numbers, insertion of formu	ulas and functions,	including
addressing, error d	letection. Working with large spreadsheets, filters, advanced filters, database functions. Pivot tables and charts, conditional formatting, s	solution finding, sol	ver, macros,
	data analysis. Examples and questions from various companies and training.		
614Y1TI	Creating Interactive Internet Applications	KZ	2
Possibilities of scrip	pting language PHP. Overview of PHP language syntax, and functions. Analysis of finished scripts and demonstration of solutions. You in PHP language.	ir own application p	programmed
614Y1UP	Editing of Theses in MS Word	KZ	2
	introduced to the principles of creating and editing large documents and basic typographic rules. They will properly apply styles, creating and editing large documents and basic typographic rules.	1	1
	phs, etc. Footnotes, captions, index. They practice corrections of finished documents. The goal is to prepare students for seamless ec		
	so that they are able to concentrate mainly on writing a thesis.	-	
614Y1VM	Development of Applications for Mobile Devices	KZ	2
Object oriented	programming, Java programming language, development environment, operating system Android, development application - widgets	, containers, threa	ds, menu,
	permissions, services, GUI.		
614Y1W1	Webdesign 1	KZ	2
	the basics of communication HTTP, URL and addressing, markup languages HTML and XHTML, HTML tags, rules of web accessibility		
614Y1W2	s, the issue of web browsers, creating one to three column layout pages, sites validation, conditional comments. Topics will be practice Webdesign 2	KZ	nipies.
	advanced techniques CSS, responsive webdesign, CSS frontends, content management systems, JavaScript, jQuery, SEO, web set	1	1
	directives. Topics will be practiced on practical examples.		garadon
614Y1WG	Webdesign	KZ	2
Students will lear	n the basics of HTTP communication, URL and addressing, HTML5 markup language, advanced CSS3 techniques, accessible and u	usable web rules, i	esponsive
	webdesign, content management systems, web server installation + configuration directives. The subject matter will be trained on e		
614Y1ZJ	Fundamentals of programming in JAVA	KZ	2
	Java SE Platform, IDE Installation and First Project, Comments, Variables and Type System, Operators, User Input and Parsing, Cha		
	ematical Methods, Terms, Relational Operators and Switches, Cycles for, while, foreach, Field - declaration, initialization, methods for parameters, return value, recursion, Program creation	neid work, ASCII,	runciions,
614Y1ZM	Fundamentals of parametric and adaptive modeling	KZ	2
	roducts and parts creation. Sketch drawing by help of geometric relations, parametric dimensions, creation of adaptive models from 2		
	from and to another systems. Fundamentals of assemblies creation.		
614ZDA	Data Processing	Z	3
	a processing and analysis tools. Practical part of the training - introduction to the working environment, applied examples of data proce		e, advanced
	ods of presentation of the results. Seminar papers on open data. Consultation hours for seminar papers. Seminar paper submission a	and presentation.	
615DPLG	Transportation Psychology		2
	ogy and its basic concepts. Information intake, decision-making and behaviour. Performance. Engineering psychology and vehicle consi el route and traffic conditions, accidents and traffic incidents. Selection and training of the staff. Work and leisure. Age as a factor in tr		
615JZ1A	Foreign Language - English 1	Z	3
	tures and style. Selection of conversation topics relating to transportation sciences. Extending vocabulary, developing perceptive and co	1	1
	stylistics forms. Oral and written presentation of original research. Academic text principles and reading comprehension. Principles		
615JZ2A	Foreign Language - English 2	Z,ZK	3
	tures and style. Selection of conversation topics relating to transportation sciences. Extending vocabulary, developing perceptive and co	mmunicative skills.	Elementary
	stylistics forms. Oral and written presentation of original research. Academic text principles and reading comprehension. Principles of	of rhetoric.	
615JZ3F	Foreign Language - French 3	Z	3
Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I		-
and a state	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	with (protessional)	text and its
and perceptive an		Z	3
	Ecroign Language Italian 2	· /	-
615JZ3I	Foreign Language - Italian 3	1	knowledge
615JZ3I Grammar and styl	Foreign Language - Italian 3 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	anguage structure	
615JZ3I Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I	anguage structure	
615JZ3I Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	anguage structure	
615JZ3I Grammar and styl and perceptive an 615JZ3N	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	anguage structure with (professional)	text and its
615JZ3I Grammar and styl and perceptive an 615JZ3N Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of I d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Foreign Language - German 3	anguage structure with (professional)	text and its 3 knowledge

	Foreign Language - Russian 3 stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la	Z nguage structure	knowledg
nd perceptive and	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w		
	features. Practice of oral and written presentation.		
615JZ3S	Foreign Language - Spanish 3	Z	3
rammar and styli	stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la	nguage structure	knowled
nd perceptive and	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w	ith (professional)	text and
	features. Practice of oral and written presentation.		
615JZ4F	Foreign Language - French 4	Z,ZK	3
	stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la		
nd perceptive and	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w	ith (professional)	text and
<u></u>	features. Practice of oral and written presentation.	/	
615JZ4I	Foreign Language - Italian 4	Z,ZK	3
-	stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la		
nd perceptive and	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w features. Practice of oral and written presentation.	ith (professional)	text and
615JZ4N		Z,ZK	3
	Foreign Language - German 4	,	-
	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w		
nu perceptive and	features. Practice of oral and written presentation.	iiii (proiessionai)	lext and
615JZ4R	Foreign Language - Russian 4	Z,ZK	3
	stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la	,	-
	I communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w		
	features. Practice of oral and written presentation.	in (presectional)	
615JZ4S	Foreign Language - Spanish 4	Z,ZK	3
	stics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of la	,	-
-	communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work w		
	features. Practice of oral and written presentation.	, , , , , , , , , , , , , , , , , , ,	
615X31D	Project 1 DOS	Z	2
615X32D	Project 2 DOS	Z	2
615X33D	Project 3 DOS	Z	4
615Y1BO	Work Safety and Health Protection in Transportation	KZ	2
	lative, definition of terms, risks and possible health damage, working conditions and health protection with focus on transportation. He		
unuamentariegisi	health insurance of home and foreign business trips, statistics, working practice.	ann protection pi	ogramme
615Y1DZ		KZ	2
	History of Railway rays, steam railways, railway network development in the 2nd half of 19th century, regional railways epoch, railways of the "First Repul		1
	vay development in the 2nd half of 20th century, high-speed railway origins, railway lines closing, important long-distance train connectio		
ar in railwayo, railu	railway accidents, railway junctions. Excursions and projections.	no, rannay intoo c	5011011 0011
	······································		
615Y1EH	European Integration within Historical Context	K7	2
615Y1EH ersailles system, f	European Integration within Historical Context formation of new states. Europe and the powers. League of Nations. European policy in the 1920s. Fascism, nacism, communism, Litt	KZ	2 2 inciples
ersailles system, f	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt	le Entente, its pri	inciples a
ersailles system, f	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its	le Entente, its pri	inciples a
ersailles system, f goals. Europe afte	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration.	le Entente, its pri	inciples a
prsailles system, f goals. Europe afte 615Y1FD	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its	le Entente, its pri s consequences f KZ	for Europe
ersailles system, f goals. Europe afte 615Y1FD France - geograp	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation	ile Entente, its pri s consequences f KZ ic, specialised ter	for Europo
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler is getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic, how society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence	ile Entente, its pri s consequences f KZ ic, specialised ter	for Europo for Europo 2 rminology
ersailles system, f poals. Europe afte 615Y1FD France - geograp Fren 615Y1HD	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffi	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ	rminology
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffich society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments	rminology
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport s transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nce systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia.	inciples a for Europe 2 rminology 2 of tariff a
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport networks in the world, current trends and tronley-bus systems. History of transport networks in the world, current trends and transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends and transport in the world.	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ	rminology of tariff a
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport s transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health o	inciples a for Europ rminology 2 of tariff a 2 of workers
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French thistory of City Mass Transport to the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nce systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these factors.	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health o	inciples a for Europ rminology 2 of tariff a 2 of workers
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French thistory of City Mass Transport History of City Mass Transport networks in the world, current trends an nce systems. History of transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to po	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health o	inciples a for Europe rminology 2 of tariff a 2 of tariff a
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French History of City Mass Transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nce systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to por Practical examples from the field of transportation; relevant legislative.	le Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health o sssibilities and sk	rminology rminology c of tariff a of workers ills of ma
ersailles system, f goals. Europe afte 615Y1FD France - geograp 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL gainnings of flying	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hock society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French thistory of City Mass Transport to the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nce systems. History of city masport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to por Practical examples from the field of transportation; relevant legislative. History of Civil Aviation	Ite Entente, its pri s consequences f KZ ic, specialised teu h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of sssibilities and sk KZ rports in the Czeo	rminology rminology c of tariff a of workers ills of mai 2 ch Repub
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearan 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic he society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport a transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic for occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to peratical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of aircafts in Czechoslovak aviation pioneers. Development of aircafts in Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying.	Ite Entente, its pri s consequences f KZ ic, specialised teu h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of sssibilities and sk KZ rports in the Czeo	rminology rminology c of tariff a of workers ills of mai 2 ch Repub
ersailles system, f oals. Europe afte 615Y1FD France - geograp 615Y1HD story of city mass clearan 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler I signification of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler I signification of the I state of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation I hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French History of City Mass Transport a transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends and nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of air amous aviators. Helicopters. CSA airplanes. Development of aircrafts in Czechoslovakia between the years 1945-1989. Classic era of	Ite Entente, its pri s consequences f KZ ic, specialised teu h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of sssibilities and sk KZ rports in the Czeo	rminology rminology c of tariff a of workers ills of mai 2 ch Repub
ersailles system, f joals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearan 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic he society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport a transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic for occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to peratical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of aircafts in Czechoslovak aviation pioneers. Development of aircafts in Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying.	KZ ic, specialised ter h gastronomy. KZ ind developments lic and Slovakia. KZ actors on health of possibilities and sk KZ rports in the Czeo aviation. Golden	inciples a for Europy 2 for Eur
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearan 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hos society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport to the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of aircafts in Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport	KZ ic, specialised ter h gastronomy. KZ ind developments lic and Slovakia. KZ actors on health of possibilities and sk KZ rports in the Czeo aviation. Golden	inciples a for Europy 2 for Eur
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearant 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1MK 615Y1NE	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Lift er Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hosociety and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport to the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nece systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republic Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to por Practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of air amous aviators. Helicopters. CSA airplanes. Development of aircrafts in Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport Historical overview of modern history of every day life, science, technology and transport in a wider context.	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health c ossibilities and sk KZ kZ KZ	inciples a for Europ
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1MK 615Y1NE	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Littler Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic the society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport stransport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an ince systems. History of city transport in Prague and Brno. History of transport. Working environment factors, and the influence of these factor of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to practical examples from the field of transportation; relevant legislative. History of Civil Aviation , development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport in a wider context. German in the Economy and Society	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health c ossibilities and sk KZ kZ KZ	inciples a for Europ
ersailles system, f goals. Europe afte 615Y1FD France - geograp 615Y1HD istory of city mass clearan 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1MK 615Y1NE	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litter Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hosociety and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport s transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republe Work Hygiene and Ergonomics in Traffic of occupational hygiene and regonomics, and their application in transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to peractical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovaki aviation pioneers. Development of aircafts in Czechoslovaki abetween the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History of every day life, science, technology and transport in a wider context. German in the Economy and Society and social issues of German speaking countries and of the EU. Reading and listening of texts. Lexical, grammatical and semantic and	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ nd developments lic and Slovakia. KZ actors on health c ossibilities and sk KZ kZ KZ	inciples a for Europy 2 minology 2 minology 2 of tariff a 2 of workers ills of mailer a for each Republer a of civ
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1MK 615Y1NE Recent economic a 615Y1ZV	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litter Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic hosoiety and culture. Current political system. System of education, studying in France. Selected authors of French literature. French History of City Mass Transport to the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of transport. Working environment factors, and the influence of these faction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of airan suation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport Historical overview of modern history of every day life, science, technology and transport in a wider context. German in the Economy and Society and social issues of German speaking countries and of the EU. Reading and listening of texts. Lexical, grammatical and semantic an selected topics.	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of ossibilities and sk KZ rports in the Czec aviation. Golden KZ KZ kZ	inciples a for Europ
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1NK 615Y1NE eccent economic a 615Y1ZV storical prologue,	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Litt rr Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motoways, railway traffic, TGV, air traffic ch society and culture. Current political system. System of education, studying in France. Selected authors of French literature. French History of City Mass Transport e transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nece systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republ Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these fa eaction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to per Practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovaki abetween the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport Historical overview of modern history of every day life, science, technology and transport in a wider context. German in the Economy and Society and social issues of German speaking countries and of the EU. Reading and listening of texts. Lexical, grammatical and semantic and selected topics. East-West dichotomy: Prelude to the Cold War	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of ossibilities and sk KZ rports in the Czec aviation. Golden KZ kZ alysis of texts. Dis KZ y of the internatio	inciples a for Europ
ersailles system, f goals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1NE eccent economic a 615Y1ZV storical prologue,	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Lift rer Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic, che society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport e transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nce systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republi Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these fe action of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to por Practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of aircrafts near of civil aviation. Airline companies. Supersonic flying. Modern History in Context: Every Day Life and Transport Historical overview of modern history of every day life, science, technology and transport in a wider context. German in the Economy and Society and social issues of German speaking countries and of the EU. Reading and listening of texts. Lexical, grammatical and semantic and selected topics. East-West dichotomy: Prelude to the Cold War evolution of the "West" and "East" from the 1500	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of ossibilities and sk KZ rports in the Czec aviation. Golden KZ kZ alysis of texts. Dis KZ y of the internatio	inciples a for Europe for Europe minology 2 for tariff a 3 of tariff a 1 2 of workers ills of mai 2 of workers ills of mai 2 of korkers ills of mai 2 of korkers ills of civ 2 coussion of 2 coussion of 2 on a relation
ersailles system, f joals. Europe afte 615Y1FD France - geograp Fren 615Y1HD story of city mass clearar 615Y1HE Basic knowledge Creation and prote 615Y1HL eginnings of flying World airports. Fa 615Y1NK 615Y1NE eccent economic a 615Y1ZV storical prologue,	formation of new states. Europe and the powers, League of Nations. European policy in the 1920s. Fascism, nacism, communism. Lift rer Hitler's getting to power, system of bilateral agreements. Decline of the LN. Rearrangement of powers during WWII. Cold war and its New quality of French-German relationship - a driving power of starting European integration. French Area Studies and Transportation hy and regions, transport infrastructure. Paris and its sights, city public transport. Road traffic, motorways, railway traffic, TGV, air traffic the society and culture. Current political system. System of education, studying in France. Selected authors of French literature. Frence History of City Mass Transport to transport in the world, development of tram, bus and trolley-bus systems. History of transport networks in the world, current trends an nee systems. History of city transport in Prague and Brno. History of tram, bus and trolley-bus operation systems in the Czech Republ Work Hygiene and Ergonomics in Traffic of occupational hygiene and ergonomics, and their application in transport. Working environment factors, and the influence of these fa eaction of working conditions that do not damage public health. Mutual links man-machine-environment. Adaptation of technology to po Practical examples from the field of transportation; relevant legislative. History of Civil Aviation g, development of aircrafts lighter than air. Beginnings of aircrafts heavier than air. Czechoslovak aviation pioneers. Development of air amous aviators. Helicopters. CSA airplanes. Development of aircrafts in Czechoslovakia between the years 1945-1989. Classic era of aviation. Modern era of civil aviation. Airline companies. Supersonic flying. Modern History of every day life, science, technology and transport Historical overview of modern history of every day life, science, technology and transport in a wider context. German in the Economy and Society and social issues of German speaking countries and of the EU. Reading and listening of tex	Ite Entente, its pri s consequences f KZ ic, specialised ter h gastronomy. KZ and developments lic and Slovakia. KZ actors on health of ossibilities and sk KZ rports in the Czec aviation. Golden KZ kZ alysis of texts. Dis KZ y of the internatio	inciples a for Europ 2 rminology 2 of tariff a 2 of worker ills of ma 2 of worker ills of ma 2 of korker 2 of ch Repub era of civ 2 ccussion 2 ccussion 2 cussion

616DYJV			
Application of mor	Vehicle Dynamics	Z,ZK	5
	chanics. Wheel and axle suspension mechanism. Wheel to road positioning characteristics. Wheel - road contact. Skid and its characteri	•	
acceleration and d	leceleration. Vertical dynamics, spring suspension, driving characteristics. Directional dynamics, gyroscopical characteristics. Driving stat	pility conditions.	Aerodynami
	forces. Driving and feedback. ABS, ESP.		1
616PAV	Passive Safety	Z,ZK	4
Road accident eva	aluation. Testing and legislation. Crash tests. Carbody properties. Injury mechanics. Restrain systems. Airbags. Road user safety. Mathen	natic modelling. I	Post collision
	safety systems.		
616UDOP	Introduction into Vehicles	Z	2
Vehicles and tran	sportation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water	transport. Altern	ative means
	of transport. Lifting equipment and conveyors. Legislation.		1
616X31D	Project 1 DOS	Z	2
616X32D	Project 2 DOS	Z	2
616X33D	Project 3 DOS	Z	4
616Y1EN	Energy Requirements of Vehicles	KZ	2
	d driving inertial of the vehicles. Types of energy - kinetic, static, heat, chemical and others. Ways of energy change into kinetic energy	Combustion eng	ine, electric
	drive, steam engine, air engine. Energy accumulation means, accumulator, flywheel, fuel cell. Energy recuperation. WTW analy:	sis.	
616Y1IS	Interactive simulators and simulations	KZ	2
Simulation theo	yry and application of computing equipment. Creating computing models. Mechanical and dynamic systems and their mathematical mod	dels. Computing	methods.
Simu	ulation of vehicle dynamics, on-land carriage in particular. Virtual reality systems. Practical exercise with simulation software and interac	tive simulators.	
616Y1KS	Quality and Reliability of Vehicles	KZ	2
	bility theory in design, development, production and operation of vehicles. Definition and possible approach to quality and reliability. Key		
	s Analysis), QFD (Quality Function Deployment), DFx (Design for Assamly, Manufacturying, Quality, Services) and other methods us		
	Knowledge-based systems of quality and reliability, data collection.		
616Y1PV	Operation, Construction and Maintenance of Vehicles	KZ	2
	e production. Vehicle maintenance. Vehicle diagnostics. Maintenence and repair plans. Engine maintenance and emission measuremer		
	General principles of engine diagnostics.		
616Y1RE	Control and Electronic Vehicle Systems	KZ	2
	pts of regulation. Tools for analytical solution, linear system description. Basic types of a regulator (PID), properties, advantages, disadvan		
-	e control. Electric drive. Vehicle communication bus (CAN, LIN, FlexRay, ISObus, KWP2000 protocole etc.). Vehicle electronic control, s	-	
,	comfort systems.		
616Y1SO	Strategy and innovation in mobility	KZ	2
	novation, definition. Innovation strategy. Innovation life cycle and ecosystem, main sources and funding opportunities. Successful innov		
	Jation. Sprint method and its use. Innovative business model - main patterns and examples, design, strategy, processes and outlook (bu		
<u>,</u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	of use). Creating an innovation strategy. Customer and value map, design and testing.		
616Y1VT	Development in Railroad Vehicles	KZ	2
	es traction. Railroad vehicle parametres regulation. Control and driving of railroad vehicles. Importance in heavy duty and personal trans		
	assesment. New materials in design. International standardization.		
616Y1ZG	Introduction into Applied Computer Graphics		
		KZ	2
		KZ nes. models. prin	
	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem	nes, models, prin	ciples of 2D
		nes, models, prin	ciples of 2D
and 3D generat	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour scherr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software.	nes, models, prin Introduction to 2	ciples of 2D
and 3D generat	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics.	nes, models, prin Introduction to 2 KZ	ciples of 2D D and 3D
and 3D generat	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction	nes, models, prin Introduction to 2 KZ uses, motorbikes	ciples of 2D D and 3D
and 3D generat 616Y1ZL Vehicle costructio	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing.	ciples of 2D D and 3D
and 3D generat 616Y1ZL Vehicle costructio 617FID	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK	ciples of 2D 2D and 3D 2 3, legislation 4
and 3D generat 616Y1ZL Vehicle costructio 617FID	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction in, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c	ciples of 2D 2D and 3D 2 3, legislation 4
and 3D generat 616Y1ZL Vehicle costructic 617FID Sources of financi	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, but in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport ing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c programs.	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid
and 3D generat 616Y1ZL Vehicle costructio 617FID Sources of financi 617TEDL	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Ing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c programs. KZ	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid
and 3D generat 616Y1ZL Vehicle costructio 617FID Sources of financi 617TEDL Basic terms in tra	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Ing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics Insport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transport transport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transport technology and logistics.	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c programs. KZ port, organisatio	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subside 3 n of traffic ir
and 3D generat 616Y1ZL Vehicle costructio 617FID Sources of financi 617TEDL Basic terms in tra each transport n	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Ing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics Insport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c programs. KZ port, organisatio g various transp	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 3 n of traffic ir ort modus.
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport n 617TGA	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, but in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project c programs. KZ port, organisatio g various transp Z,ZK	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, but in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in others.	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project co programs. KZ port, organisatio g various transp Z,ZK her scientific disc	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy 3 n of traffic ir ort modus. 4 ciplines.
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport n 617TGA Basic terms of 617X31D	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, but in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nesport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ott Project 1 DOS	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy ort modus. 4 ciplines. 2
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport m 617TGA Basic terms of 617X31D 617X32D	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, built in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics neport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ott Project 1 DOS Project 21 DOS	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy ort modus. 4 ciplines. 2 2
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X33D	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemer ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction in, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, built in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nesport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin ordus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin for graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy 3 n of traffic ir ort modus. 4 ciplines. 2 2 4
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport n 617TGA Basic terms of 617X31D 617X32D 617X33D 617Y1EV	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemer ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Ing of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics Insport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4 ciplines. 2 2 4 2 4 2
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and fina	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, build in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ott Project 1 DOS Project 21 DOS Public Sector Economy ancial theory of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA,	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy 3 n of traffic ir ort modus. 4 ciplines. 2 2 4 4 2 MCA, CEA)
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and financi tax system of the Comparison of th	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction Image: Construction in, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, builting and parameters of traction, constructional arrangement of personal cars, trucks, builting and investment in transport Image: Construction in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Image: Construction of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics Image: Construction of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport Image: Construction of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public 2R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding resistence	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, n EU funds, prog	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 7 3 n of traffic ir ort modus. 4 ciplines. 2 4 2 4 2 MCA, CEA) yram HDM-4
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and fina tax system of the 0 617Y1LL	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, be in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport Image: Financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics Image: Financing and investment in transport Image: Financing and realization of investment in transport, the investment and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and freight transport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transport. Image: Financing and investment in transport Image: Financing and investment in transport Image: Financing and realization of investment in transport Image: Financing and realization of investment in transport Image: Financing and realization of investm	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, m EU funds, prog KZ	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy 7 4 ycle, subsidy 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and fina tax system of the 0 617Y1LL	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in graphics software. Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS CR, state budget, management of public choice theory, externalites, decisions about public finance allocation, economic assesment of public CR, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding from Logistics of Passenger and Freight Air Transport assenger and cargo. Aircraft and airport terminals for passenger and cargo transport. Airlines in terms of logistics systems. Aerial transport	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, m EU funds, prog KZ	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 7 ycle, subsid ycle, subsid 1 ycle, subsi
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and finant tax system of the C 617Y1LL Logistics airline particular 1000 - 1	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem- ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, be in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in go transport infrastructure, the role of public administration in the financing and realization of investment in transport, ng of transport technology and Logistics maport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight trans nodus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS Project 3 DOS Construction of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding fror Logistics of Passenger and Gregot transport. Airlines in terms of logistics systems. Aerial transp air cargo. Information systems in air transport. Global distribution systems.	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, n EU funds, prog KZ port process pas	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsid 7 ycle, subsid ycle, subsid 1 ycle, subsi
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and fina tax system of the 0 617Y1LL	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in graphics software. Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS CR, state budget, management of public choice theory, externalites, decisions about public finance allocation, economic assesment of public CR, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding from Logistics of Passenger and Freight Air Transport assenger and cargo. Aircraft and airport terminals for passenger and cargo transport. Airlines in terms of logistics systems. Aerial transport	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, m EU funds, prog KZ	ciples of 2D 2D and 3D 2 3, legislation 4 ycle, subsidy 7 4 ycle, subsidy 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and finat tax system of the C 617Y1LL Logistics airline particular 617Y1MD	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem- ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, be in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in go transport infrastructure, the role of public administration in the financing and realization of investment in transport, ng of transport technology and Logistics maport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight trans nodus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS Project 3 DOS Construction of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding fror Logistics of Passenger and Gregot transport. Airlines in terms of logistics systems. Aerial transp air cargo. Information systems in air transport. Global distribution systems.	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project co programs. KZ port, organisatio g various transp Z,ZK her scientific diso Z Z Z KZ c projects (CBA, n EU funds, prog KZ port process pas	ciples of 2D 2D and 3D 2 2, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4 ciplines. 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and finat tax system of the C 617Y1LL Logistics airline particular 617Y1MD	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour scherr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction in, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, bi in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS Neublic Sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding for Logistics of Passenger and Areight Air Transport assenger and cargo. Aircraft and airport terminals for passenger and cargo transport. Global distribution systems. Aerial trans air cargo. Information systems in air transport. Global distribution systems.	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project co programs. KZ port, organisatio g various transp Z,ZK her scientific diso Z Z Z KZ c projects (CBA, n EU funds, prog KZ port process pas	ciples of 2D 2D and 3D 2 2, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4 ciplines. 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and finat tax system of the C 617Y1LL Logistics airline particular 617Y1MD	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour scherr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, but in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in Financing and investment in transport or farasport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics neport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS Logistics of Passenger and Freight Air Transport acial theory of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding fror Logistics of Passenger and cargo transport. Airlines in terms of logistics systems. Aerial transp air cargo. Information systems in air transport. Global distribution systems. Marketing applied to transport issues, marketing tools suitable for transport as a service, specifics of public passenger transport an	kes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project co programs. KZ port, organisatio g various transp Z,ZK her scientific diso Z Z Z KZ c projects (CBA, n EU funds, prog KZ port process pas	ciples of 2D 2D and 3D 2 2, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4 ciplines. 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617Y1EV Economic and finant tax system of the C 617Y1LL Logistics airline part 617Y1MD General principles 617Y1OF	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour scherr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction In, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, bu in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and sport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight trans nodus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 3 DOS Description of public choice theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding fror Logistics of Passenger and Grago transport. Airlines in terms of logistics systems. Aerial trans air cargo. Information systems in air transport. Global distribution systems. Marketing applied to transport terminals for passenger and cargo transport. Airlines in terms of logistics systems. Aerial trans air cargo. Information systems in air transpo	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project co programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z Z KZ c projects (CBA, m EU funds, prog KZ cort process pas KZ d the resulting d	ciples of 2D 2D and 3D 2 2, legislation 4 ycle, subsid 3 n of traffic ir ort modus. 4 2 4 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and 2 ifferences ir 2
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and finant tax system of the C 617Y1LL Logistics airline part 617Y1DF Personal finance	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour scherr ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, bi in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics programs and their rules, competition, organisation of city transport, logistic technologies and their aplication usin digraph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 21 DOS Project 21 DOS Project 3 DOS Active theory, externalites, decisions about public finance allocation, economic assesment of public R, state budget, management of public projects a their economic efficiency assessment, way of elaboration of PPP projects, funding fror R, state budget, management o	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z KZ c projects (CBA, n EU funds, prog KZ port process pas KZ d the resulting d KZ ng (rent, mortgag	ciples of 2D 2D and 3D 2D and 3D 2 2 3, legislation 4 ycle, subside 3 n of traffic ir ort modus. 4 2 4 2 4 2 4 2 4 2 4 2 4 2 MCA, CEA) pram HDM-4 2 sengers and 2 ifferences in 2 ge, savings,
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in tra each transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and fina tax system of the O 617Y1LL Logistics airline participles 617Y1OF Personal finance	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schem- ion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, bi in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling in the EU and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and inclusion and logistics, particular steps of transport fechnology and Logistics insport technology and logistics, particular steps of transport planning, line planning, limetabling, planning in pasanger and freight trans nodus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in oth Project 21 DOS Project 21 DOS Project 3 DOS Public Sector Economy ancial theory of public sector, public choice theory, externalites, decisions about public finance allocation, economic assesment of pub	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z KZ c projects (CBA, n EU funds, prog KZ port process pas KZ d the resulting d KZ ng (rent, mortgag	ciples of 2D 2D and 3D 2D and 3D 2 2 3, legislation 4 ycle, subsidy 3 n of traffic in ort modus. 4 2 2 4 2 4 2 4 2 4 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and 2 ifferences in 2 ge, savings,
and 3D generat 616Y1ZL Vehicle costruction 617FID Sources of financi 617TEDL Basic terms in transport in 617TGA Basic terms of 617X31D 617X32D 617X32D 617X32D 617Y1EV Economic and finant tax system of the C 617Y1LL Logistics airline part 617Y1DF Personal finance	s, division and applications with emphasis on transport, including development and research. Colours, colour perception, colour schemion, elementary algorithms for graphic data workout. Visualisation principles and tasks, technics, graphics and visualisation HW basics. graphics software. Vehicle Testing, Legislation and Construction n, aggregate computing, driving resistance, building and parameters of traction, constructional arrangement of personal cars, trucks, be in the EU and in the world, creation of technical legislation, testing methods, vehicle tests, accelerated tests, mathematical modelling i Financing and investment in transport ng of transport infrastructure, the role of public administration in the financing and realization of investment in transport, the investment programs and their rules, competition, effectiveness and efficiency of spending public funds, evaluation systems of public projects and Transport Technology and Logistics nsport technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usin Graph Theory and its Applications in Transport of graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in ot Project 1 DOS Project 1 DOS Project 3 DOS Logistics of Passenger and Graigh Air angort Air and airport terminalis for passenger and Graigh Air angort Air and airport terminalis for passenger and Graigh Air angort Air and airport terminalis for passenger and Graigh Air angort Air and airport terminalis for passenger and Graigh Air Air angort Air and airport terminalis for passenger and Graigh Air Transport air args of transport. Airlines in terms of logistics systems. Aerial transp air cargo. Aircraft and airport terminalis for passenger and Graigh Air Transport air args of transport. Airlines in terms of logistics systems are the application of marketing. Personal Finance (budget, financing of basic living needs), debt (loans add credits, payment	nes, models, prin Introduction to 2 KZ uses, motorbikes in testing. Z,ZK project project cr programs. KZ port, organisatio g various transp Z,ZK her scientific disc Z KZ c projects (CBA, n EU funds, prog KZ port process pas KZ d the resulting d KZ ng (rent, mortgag	ciples of 2D 2D and 3D 2D and 3D 2 2 3, legislation 4 ycle, subsidy 3 n of traffic in ort modus. 4 2 2 4 2 4 2 4 2 4 2 4 2 4 2 MCA, CEA) yram HDM-4 2 sengers and 2 ifferences in 2 ge, savings,

			1
617Y1SK	Urban and Regional Rail Transport Systems	KZ	2
-	transport demand, modal-split, distribution of passenger flows on public regional transport lines. Optimization of line management, line	-	-
evaluation of the	e timetable. Vehicle circulation creation. Optimizing driver shifts and arranging them in turnus. Effects of barrier-free and public transport	ort preferences. Th	ne role of
	marketing.		
617Y1SL	Sociology of Human Resources	KZ	2
Human resources a	and their importance, work group as a special kind of social group, communication, personal management, modern management, hum	an resources plan	ning, culture
	of the organization.		
617Y1ST	Titan Simulation	KZ	2
Titan is a manag	gement game simulating the business decisions. Lets 2-8 student groups to produce and compete in the market with the same produc	ct. Students set a	price and
determine the quar	tity and capacity of production, plan budgets for marketing, research and development. They become familiar with the consequences	of their decisions	by the form
	of financial corporate reports and they use this information for other business decisions.		
618DYKS	Dynamics of Structures and Systems	Z,ZK	3
	ns with multiple degrees of freedom. Natural modes and natural frequencies. Method of stiffness constants, method of elastic constar		
	nuously distributed mass. Matrix form of equations of vibration. Finite element method in dynamics of structures. Solving vibrations by s		
	Subspace iteration methods. Introduction to nonlinear vibrations.		
618KIDY	Kinematics and Dynamics	Z,ZK	4
	ng a line and a curve. Kinematics of rigid body. Kinematics of the point mass and the system of mass points. Dynamics of a mass point		
	on. Method of Newton. D'Alembert principle. Free and forced vibration with one degree of freedom. Viscous damping. Impact theory. Ir	=	-
	vibration with two degrees of freedom.		
618MECK	Mechanics of Constructions	KZ	3
	of elastic beam. Solution of statically indeterminate systems - force and deformation method. Stiffness and compliance matrix of a systems		-
	ory and fundamentals of structural design. Characteristics of steel, design of steel structures. Introduction to mathematical theory of		ice methou.
			2
618MTY	Materials Science and Engineering	Z,ZK	3
	terials science and engineering explains mechanical properties of structural materials based on their bonding forces and microstructu		
is paid to metals as	s the most important engineering materials, also other major classes of materials are presented, namely ceramics, polymers and corr	posites. Attention	is also paid
	to degradation processes in materials, to defectoscopy and to main mechanical tests.		
618NUMM	Numerical Methods in Mechanics	KZ	3
	st used numerical methods in structural mechanics. Central difference method, finite element method, boundary element method. Tin	•	
schemes. Finite el	ement method - derivation of the basic equations. Stiffness matrix, mass matrix, damping matrix at element level and structural level.	Methods for solvin	ng systems
	of algebraic equations. Numerical integration.		
618PZP	Elasticity and Strength	Z,ZK	3
	ession. Bending of beam. Shear stress during bending of beam. Design and analysis of cross section of beam. Design of riveted, bolted		
Analysis of defle	action curve of beam. Torsion of circle cross section. Combined loading. Stability of compressed bar and buckling. Beam on elastic fou	ndation. Strength	analysis.
618SAT	Structural Analysis	Z,ZK	4
General system of	of forces in plane and space. Calculation of reactions of bodies and structures. Assessment of internal forces on statically determinate	e beams and simp	le girders.
Principle of virtual w	vork. Kinematic method for calculation of reactions of statically determinate systems. Determination of axial forces in truss constructions.	Cross-sectional ch	aracteristics
	of planar shapes. Fiber polygons and chains.		
618SPP	Seminary from Elasticity and Strength	Z	0
Excersise for pract	ice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross section of beam	n. Analysis of defle	ection curve
	of beam. Torsion of circle cross section. Combined loading. Stability of compressed bar and buckling.		
618SS	Seminary from Structural Analysis	7	0
	ise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinate beam and	simple framework	-
	al works for calculation of reactions of staticaly determinate systems. Determination of axial forces in truss construction - method of j		
	Geometry of cross sections. Plane fiber polygons.		
618STD	Seminary from Technical Documentation	Z	0
	rds, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, dimensiona		-
	arrangement of drawing sheets.	rana goomotroar	accuracy,
618TED	Technical Documentation	KZ	2
			1
	rds, international standardization, technical drawings, representation of technical objects, technical diagrams and charts, dimensiona arrangement of drawing sheets.	i and geometrical	accuracy,
0402/045		7	•
618X31D	Project 1 DOS	Z	2
618X32D	Project 2 DOS	Z	2
618X33D	Project 3 DOS	Z	4
618Y1AM	Anatomy, Mobility and Safety of Man	KZ	2
and biomechanics	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation		m. Structure
		and nervous syste	
	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation	and nervous syste	
618Y1EM	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured n joint prostheses. Protective means and traffic safety regulations.	and nervous syste nan and his treatm	
618Y1EM The purpose and r	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured n joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics	and nervous syste nan and his treatm KZ	ent. Human
The purpose and r	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured n joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive	and nervous syste nan and his treatm KZ esting of materials	ent. Human 2 s. Design of
The purpose and r	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured n joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics	and nervous syste nan and his treatm KZ esting of materials	ent. Human 2 s. Design of
The purpose and r experimental pro-	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured n joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive cedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement.	and nervous syste nan and his treatm KZ resting of materials tigue and lifetime p	ent. Human 2 s. Design of orediction.
The purpose and r experimental pro- 618Y1MT	natomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive cedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials	and nervous syste han and his treatm KZ resting of materials rigue and lifetime p KZ	ent. Human 2 s. Design of prediction. 2
The purpose and r experimental pro 618Y1MT Systematic overvie	Inatomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive for cedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials w of main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers and	KZ KZ KZ KZ KZ KZ Composites, atter	ent. Human 2 s. Design of prediction. 2
The purpose and r experimental pro 618Y1MT Systematic overvie to biol	Inatomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive testing and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials w of main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers and ogical materials and to biomimetics. Integral approach to material selection process is also demonstrated based on so called Ashby's	KZ KZ esting of materials igue and lifetime p KZ composites, atter selection charts.	ent. Human 2 s. Design of orediction. 2 ntion is paid
The purpose and r experimental pro 618Y1MT Systematic overvie to biol 618Y1PS	Inatomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive for cedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials w of main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers and ogical materials and to biomimetics. Integral approach to material selection process is also demonstrated based on so called Ashby's Computer Simulations in Mechanics	KZ KZ esting of materials igue and lifetime p KZ composites, atter selection charts. KZ	ent. Human 2 s. Design of orediction. 2 ntion is paid 2
The purpose and r experimental pro 618Y1MT Systematic overvie to biol 618Y1PS Principles and o	Inatomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive for dedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials we of main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers and ogical materials and to biomimetics. Integral approach to material selection process is also demonstrated based on so called Ashby's Computer Simulations in Mechanics werview of programs for stress analysis of structures. Numerical methods in mechanics, finite element method. Geometric model device of programs for stress analysis of structures. Numerical methods in mechanics, finite element method. Geometric model device of programs for stress analysis of structures. Numerical methods in mechanics, finite element method.	KZ esting of materials igue and lifetime p KZ composites, atter selection charts. KZ elopment and ada	ent. Human 2 s. Design of orediction. 2 ntion is paid 2 ptation of
The purpose and r experimental pro 618Y1MT Systematic overvie to biol 618Y1PS Principles and o	Inatomical structure and growth of bones. Articular joint. Remodelling of bone tissue. Anatomical structure of muscles. Blood circulation of muscular-skeletal system. Injury of human organs and musculo-skeletal system during traffic accidents. Mobility of ill and injured m joint prostheses. Protective means and traffic safety regulations. Experimental Methods in Mechanics ole of experimental mechanics. Sensors for mechanical testing. Overview of experimental methods. Destructive and non-destructive for cedures and sample preparation. Tensile and bending tests. Electrical resistance strain gages. Optical based strain measurement. Fa Instrumented hardness testing. Introduction to electron microscopy. Errors in measurement. Engineering Materials w of main classes of materials used in technical design. In addition to main classes of materials, i. e. metals, ceramics, polymers and ogical materials and to biomimetics. Integral approach to material selection process is also demonstrated based on so called Ashby's Computer Simulations in Mechanics	KZ esting of materials igue and lifetime p KZ composites, atter selection charts. KZ elopment and ada	ent. Human 2 s. Design of orediction. 2 ntion is paid 2 ptation of

618Y1UK			
Designation and a standard	Introduction of Rail Vehicles	KZ	2
	cs and parameters rail transport systems - railway and urban transport. Basis driving mechanics rail vehicles - equation of motion trai		-
rack resistance. To	al running resistance. Acceleration force. Analyzing driving cycle rail vehicle. Speed-power diagrams and characteristics rail vehicle - h	ydromechanic, h	iydrodynami
	and electric drive. Design concept rail vehicles and drive of wheel set.		
620SYSA	Systems Analysis	Z,ZK	5
	em sciences, system viewpoint, terminology, typical system analysis tasks, system identification, system interface and interface tasks,		
and its analysis, s	trong functions and processes, genetic code, system identity, system architecture. Tools for system analysis - Petri nets, decision tabl tasks. Soft and hard systems, methods for soft system analysis.	es, algorithms to	or structural
620UITS		Z,ZK	7
	Introduction to Intelligent Transport Systems		
	nciples and technical support measurement of traffic data, localization and navigation. Practical work with traffic data. Real examples		
· · · · · · · · · · · · · · · · · · ·	principles of ITS.		
620X31D	Project 1 DOS	Z	2
620X32D	Project 2 DOS	Z	2
620X33D	Project 3 DOS	 Z	4
620Y1AE	Applied Electronics	KZ	2
	emiconductor components, their principles, characteristics and typical connection diagrams. Semiconductor PN junction diodes, trans		1
	gic gates. Functions of basic electronic circuits and methods for their designs (rectifiers, voltage regulator with Zener diode, transisto	-	-
•	amplifier as an inverting and noninverting amplifier).	•	
620Y1AF	Alternative Forms of Transportation Project Financing	KZ	2
n will be specifed s	uch forms of financing in transportation and telecomunications, where the public sector body perform the final debtor, i. e. debt payme	ents come from i	ts budget bu
he final debtor is n	t a direct participant of the transaction and it is not the counterparty of the financial institute which provides the funding. Issue of secu	rities as an alterr	native sourc
	of transportation and telecomunication projects.		
620Y1EA	Environmental Aspects of Transport	KZ	2
	here, weather observation network, weather in transportation, road meteorology. Weather forecasting, data assimilation, probabilistic f		
	pollutants and their effects, atmospheric chemistry, traffic emissions. Greenhouse gasses, carbon cycle, a role of energy and transpo		
620Y1EK	Qualification in Electrical Engineering	KZ	2
-	with measurements in laboratories, electrical equipment, power supply, electrical installation of low voltage, electric shock hazard, s	-	-
vollage, maximum	allowed currents, electrical equipment protection against short circuit and overload protection, control and revision, first aid, legislatio in relation to health and safety and electrical engineering.	n, stanuarus and	regulation
620Y1KP	Communication and presentation skills	KZ	2
	s and their fulfillment, current communication networks, work with various sources, formal requirements of emails and final theses, ba		
-	onal intelligence, manipulation and way of working with it, coping with stressful situations, formal requirements of presentations, way		
,	presentation, presentation skills, presentation skills in online environment.		U
620Y1LN	Location and Navigation	KZ	2
Description and e	xamples of road networks, localization on the network. Routing algorithms, their properties and implementation. Description and exar	nples of datasets	s for finding
	transport connections, routing algorithms, their properties and implementation.		
620Y1OI	Fare Collection and Information Systems	KZ	2
	stems in public transport and their components (on-board units, validators, turnstiles,). Information systems and their components in the state of the state		bles, maps,
	els) and operators (cycles, location or current delay of vehicles,). The issue of tariff systems. Other examples of clearance syste		0
620Y10K	Road Lighting terms, street lighting components (luminaires, control cabinets for street lighting, street lighting cables), characteristics of lumin	KZ	2
	standards, measurement of illuminance and luminance in road lighting, tunnels, conceptual approach to street lighting design, lighting		
iigin diotilo diotil),	Relux, street lighting control systems.	, calculatione in .	
620Y1PK	Product Quality Management Processes	KZ	2
Jeneral principles	of organization management. Management systems and international standards; quality management systems. Quality products, prod		
			A framewo
of standards for sys	ems management, management principles. Principles of process management, monitoring and measurement systems management. U	esses, systems.	
of standards for sys	ems management, management principles. Principles of process management, monitoring and measurement systems management. Un for systems management. Process management principles. Metrology and testing. Product certification.	esses, systems.	
620Y1SC	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators	esses, systems. niform framework	of standard
620Y1SC	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of	esses, systems. niform framework KZ mechanical, elec	of standard
620Y1SC Principles of sensor	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele	esses, systems. niform framework KZ mechanical, elec ments.	c of standard 2 tro-magneti
620Y1SC Principles of sensor 621SLD	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport	kesses, systems. niform framework KZ mechanical, elec ments. Z	c of standard 2 tro-magneti
620Y1SC Principles of sensor 621SLD History, definitio	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio na	esses, systems, niform framework KZ mechanical, elec ments. Z vigation. Weight,	c of standard 2 ttro-magneti 0 balance,
620Y1SC Principles of sensor 621SLD History, definitio	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ns, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio nav t planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar	esses, systems, niform framework KZ mechanical, elec ments. Z vigation. Weight,	c of standard 2 ttro-magneti 0 balance,
620Y1SC Principles of sensor 621SLD History, definition performance. Flig	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio nav t planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies.	esses, systems, niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun	tof standard 2 tro-magneti 0 balance, d handling,
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi th planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mark security. Air crew. Airlines and economics. Space technologies. Project 1 DOS	xesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z	c of standard 2 tro-magneti balance, d handling, 2
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio nav net planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS	xesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z	c of standard 2 tro-magnetic balance, d handling, 2 2
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X33D	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio naviat planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS	xesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z Z	c of standard 2 tro-magnetic balance, d handling, 2 2 4
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X33D 621Y1AM	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi tt planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Aeronautical Information Management (AIM)	xesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z Z KZ	c of standard 2 tro-magnetic balance, d handling, 2 2 4 4 2
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X33D 621Y1AM Definition and basic	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio nav tt planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) coverview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Information Information of AIS/AIM in the Czech Rep. AIP (Aeronautical Information Informatio	KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z Z KZ	c of standard 2 tro-magneti balance, d handling, 2 2 4 2 4 2 7 8 Manual of
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X33D 621Y1AM Definition and basic	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio nav tt planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Aeronautical Information Management (AIM) coverview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeoronautical Inf. Circulars). Aeronautical Charts. EAD (Eur	KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z Z KZ	c of standard 2 tro-magnetic balance, d handling, 2 2 4 2 4 2 7 8 Manual c
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi t planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic marks security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) c overview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format).	Exercises, systems, niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ KZ vigation). VF ropena AIS Datal	c of standard 2 ttro-magneti 0 balance, d handling, 2 2 4 2 7 8 Manual o base). QMS
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All 621Y1BS	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi tt planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic man security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Aeronautical Information Management (AIM) c overview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format). Unmanned aircraft systems 1	kesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ S Publication). VF ropena AIS Datal KZ	c of standard 2 ttro-magneti 0 balance, d handling, 2 2 4 2 7 8 Manual o base). QMS 2
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All 621Y1BS	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi t planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic marks security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) c overview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format).	kesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ S Publication). VF ropena AIS Datal KZ	c of standard 2 ttro-magneti 0 balance, d handling, 2 2 4 2 7 8 Manual o base). QMS 2
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All 621Y1BS	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi th planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic marks security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) coverview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format). Unmanned aircraft systems 1 a Development. Aircraft design. Legislation in force in the Czech Republic. Planning and execution of the flight. Airspace division. Ope procedures. Practical flights.	kesses, systems. niform framework KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ S Publication). VF ropena AIS Datal KZ	c of standard 2 ttro-magnetic balance, d handling, 2 2 4 4 2 7 8 Manual c base). QMS
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621Y1AM Definition and basis the Czech Rep. Al 621Y1BS Unmanned Aviation 621Y1LJ	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi t planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic marks security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) c overview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeoronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format). Unmanned aircraft systems 1 n Development. Aircraft design. Legislation in force in the Czech Republic. Planning and execution of the flight. Airspace division. Ope	KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ C Ublication). VF ropena AIS Datal KZ rational risks and	c of standard 2 tro-magnetic balance, d handling, 2 2 4 2 7 8 Manual c base). QMS 2 d operationa
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All 621Y1BS Unmanned Aviation 621Y1LJ Basic definitions, hi	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport ons, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navi th planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mark security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) coverview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Information Bulletin). AIC (Aeoronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format). Unmanned aircraft systems 1 a Development. Aircraft design. Legislation in force in the Czech Republic. Planning and execution of the flight. Airspace division. Ope procedures. Practical flights. Aeronautical Radio and Flight Instruments	KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ Fublication). VF ropena AIS Datal KZ rational risks and KZ , airframe instrum	c of standard 2 tro-magneti 0 balance, d handling, 2 2 4 2 7 R Manual o base). QMS 2 d operationa 2 nentation an
620Y1SC Principles of sensor 621SLD History, definition performance. Flig 621X31D 621X32D 621X32D 621X33D 621Y1AM Definition and basis the Czech Rep. All 621Y1BS Unmanned Aviation 621Y1LJ Basic definitions, hi	for systems management. Process management principles. Metrology and testing. Product certification. Sensors and Actuators and actuators. Basics of measuring theory and actuating influence. The respective technologies and construction principles. Sensors of state (temperature, humidity), chemical and particle flow values. Electrical, pneumatic and hydraulic actuators and solid phase ele Seminar of Air Transport nos, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio naviet planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic mar security. Air crew. Airlines and economics. Space technologies. Project 1 DOS Project 2 DOS Project 3 DOS Aeronautical Information Management (AIM) c overview of AIS and AIM. Transition from AIS to AIM. Regulatory base. Provision of AIS/AIM in the Czech Rep. AIP (Aeronautical Inf RAC System. NOTAM messages.PIB (Pre-flight Informtion Bulletin). AIC (Aeronautical Inf. Circulars). Aeronautical Charts. EAD (Eur (Quality Mng. System). ADQ (Aeronautical Data Quality). AIXM (Aeronautical Inf. Exchnage Format). Unmanned aircraft systems 1 Development. Aircraft design. Legislation in force in the Czech Republic. Planning and execution of the flight. Airspace division. Ope procedures. Practical flights. Aeronautical Radio and Flight Instruments story of aircraft instrumentation, aerometric instrumentation, Earth magnetism, aircraft electric equipment, gyroscopic instrumentation,	KZ mechanical, elec ments. Z vigation. Weight, nagement, groun Z Z KZ Fublication). VF ropena AIS Datal KZ rational risks and KZ , airframe instrum	c of standard 2 tro-magnetic balance, d handling, 2 2 4 2 2 3 4 2 2 3 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 4 2 2 1 2 1

621Y1MP	Matlab for project-oriented study	KZ	2
	bus is focused on the problem-solving during bachelor's thesis preparation and it is based on students' requests. Individual exercises	1	ccording to
particular examp	les, based on actual students' needs and suggestions. The subject will have a flexible form, which is expected to bring an improvement	ent of students' Mat	tlab skills.
621Y1OH	Airline Business and Operations	KZ	2
The course provide	s a comprehensive view of the commercial, operational and transportation activities of air transport companies. It focuses on the organiz	ational structure of	companies,
various aspects of t	their strategy, economic and operational indicators. It introduces students in detail to operational processes and the essentials of transp	portation processes	s. It provides
	a basic view of the economic aspects of air transport.		
621Y1PC	ATC Procedures and Activities	KZ	2
Air traffic control p	procedures, basics of communication and phraseology, aircraft identification, spacing and traffic coordination. In addition, the course	discusses air traffic	c control at
the airpor	rts and low visibility operational procedures. Students will during the course learn basic safety management applications applied acro	ess the infrastructur	re.
621Y1RZ	Human Resources Management	KZ	2
The position of I	human resources in the organization and related disciplines file. Substance, importance and challenges of human resources manage	ment. Internal and	external
environment of hun	nan resource management. Human resource planning. Search, recruitment and selection of employees. Motivation, evaluation and rer	nuneration of staff.	Positioning,
	dismissal and redundancies of employees. Education of employees. Planning career management.		
621Y1SI	ATC Simulator	KZ	2
Familiarization v	with the simulation environment, acquiring basic habits, aircraft identification procedures, vectoring, level changes, ATC clearance, us	e of RNAV points.	Practical
exercises focusir	ng on basic vectoring, early application of vertical separation, EST and REV message passing. Practical exercises in the APPROACH	l area, practicing a	rrival and
	departure management procedures, conflict resolution.		
621Y1UL	Aircraft Maintenance	KZ	2
Aircraft operations	and technical operations. Maintenance and work processes. Defects search methods, status check diagnostic tools. Selection and qua	alification of aviation	n personnel.
Basic documentat	ion for maintenance. Optimization of time maintenance intervals. Regulation no. 1321/2014 Part 145. Human factors of aircraft maintenance	enance. Regulation	of director
	EASA for aircraft maintenance. Seminars will be focused on practical application.		
621ZALD	Basics of Air Transport	KZ	2
History, definitions,	terminology, basic rules. VFR/IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navigation.	Weight, balance, p	erformance.
Flight planning, opt	timization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic management, grou	ind handling, secur	ity. Air crew.
	Airlines and economics. Space technologies.		
622DON	Traffic Accidents	Z,ZK	6
Introduction to Roa	d Accidents and Forensic Expertise; Rail, Water and Air Accidents; Road Accident Documentation and Documentation Technology; A	ccident Data Reco	rders - EDR
Systems; Road Acc	cident Trace Analysis and Fake Accidents; Simulation Programmes for Road Accident Analysis; Pedestrian and Cyclist Accidents; Ver	nicle technologies a	and systems
and autonomous v	ehicles; Safe road layout and collision diagrams; Not giving right of way; Technical defects of vehicles; Restraints - passive road safet	y; Accidents at leve	el crossings;
	Prevention (traffic education, awareness, repression)		
622METD	Measurement Methods and Technology in Transportation	ZK	4
Measurement me	ethods in transport, their meaning and use. Geodetic basics in Czechia. Angular, length and height measurements. Principles of map	ping, accuracy and	d errors of
geodetic measuren	nents. Surveying and setting out. Challenges of localization, navigation and Global Navigation Satellite Systems. Laser scanning (terr	ostrial mobile LIAV	/) Technical
0		estinal, mobile, OAV	/). Technicai
	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras.		,
622X31D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS	Z	2
	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras.		,
622X31D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS	Z	2
622X31D 622X32D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS	Z Z	2 2
622X31D 622X32D 622X33D 623X31D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS	Z Z Z Z	2 2 4 2
622X31D 622X32D 622X33D 623X31D 623X32D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS	Z Z Z Z Z	2 2 4 2 2
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS	Z Z Z Z Z Z	2 2 4 2 2 2 4
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D 623Y1EH	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Electronics and hardware in security of transportation	Z Z Z Z Z KZ	2 2 4 2 2 2 4 2 4 2
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits	Z Z Z Z Z KZ its, parameters. Ac	2 2 4 2 2 4 2 tive filters.
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. D	Z Z Z Z Z KZ its, parameters. Ac	2 2 4 2 2 4 2 tive filters.
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics.	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati	2 2 4 2 2 4 2 ctive filters.
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation	Z Z Z Z Z kz its, parameters. Ac Design and fabricati	2 2 4 2 2 4 2 ctive filters. ion methods 2
622X31D 622X32D 622X33D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb	Z Z Z Z KZ its, parameters. Ac Design and fabricati	2 2 4 2 2 4 2 ctive filters. ion methods 2 2 vacts, social
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X1EH Types and param Power supplies. Log 623Y1KB Basic concepts of sengineering	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar	2 2 4 2 2 4 2 tive filters. ion methods 2 acts, social ds.
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of engineerir 623Y1KM	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar	2 2 4 2 2 4 2 tive filters. on methods 2 pacts, social ds. 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of engineerir 623Y1KM Theory and legal fr	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ pn: theory and posi	2 2 4 2 2 4 2 tive filters. on methods 2 pacts, social ds. 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of engineerir 623Y1KM Theory and legal fr management of the second s	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, i Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge ogement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar borms and standar KZ pn: theory and posi iatrix compilation.	2 2 4 2 2 4 2 tive filters. on methods 2 bacts, social ds. 2 tion of crisis
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of engineerir 623Y1KM Theory and legal fr	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge of gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi iatrix compilation. KZ	2 2 4 2 2 4 2 tive filters. on methods 2 pacts, social ds. 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of sengineerin 623Y1KM Theory and legal fr manar 623Y1KO	Project 1 DOS Project 2 DOS Project 3 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ nents.	2 2 4 2 4 2 tive filters. on methods 2 bacts, social ds. 2 tion of crisis 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr manar 623Y1KO 623Y1KO	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 1 DOS Project 2 DOS Project 2 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Project 2 DOS Cybernality	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ nents. KZ	2 2 4 2 4 2 tive filters. on methods 2 bacts, social ds. 2 tion of crisis 2 2 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr. manar 623Y1KO 623Y1KY Juridical aspects of	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge of gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Cybernality behavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standard KZ on: theory and posi natrix compilation. KZ nents. KZ oware and connect	2 2 4 2 4 2 tive filters. on methods 2 vacts, social ds. 2 tion of crisis 2 tion of crisis 2 tion et crisis
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of se engineerin 623Y1KM Theory and legal fr manage 623Y1KM Theory and legal fr manage 623Y1KO 623Y1KY Juridical aspects of 623Y1MK	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Cybernality tebehavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standard KZ on: theory and posi natrix compilation. KZ nents. KZ ioware and connect KZ	2 2 4 2 2 4 2 tive filters. on methods 2 vacts, social ds. 2 tion of crisis 2 tion of crisis 2 ted aspects. 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr. manage 623Y1KM Theory and legal fr. manage 623Y1KM Theory and legal fr. manage 623Y1KM Determination of c	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the filed of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge of gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Production of optoelectronics compor Cybernality thehavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. Ini Crisis Situation Management in Critical Infrastructure pritical infrastructute elements on all levels, their protection systems, responsibilities of particular agencies of the state administration	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standard KZ on: theory and posi natrix compilation. KZ nents. KZ ioware and connect KZ and the self-govern	2 2 4 2 2 4 2 tive filters. on methods 2 vacts, social ds. 2 tion of crisis 2 tion of crisis 2 ted aspects. 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr manage 623Y1KM Theory and legal fr manage 623Y1KM	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits, circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. In electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge e gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics Ground of quantum physics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics compor Cybernality tehenavior on the computer network and computer systems, cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure ritical infrastructute elements on all levels, their protection systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure with special attention to	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ ioware and connect KZ ioware and connect KZ and the self-govern the soft targets.	2 2 4 2 2 4 2 tive filters. on methods 2 vacts, social ds. 2 tion of crisis 2 tet aspects. 2 tet aspects. 2 nment, and
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of 3 engineerir 623Y1KM Theory and legal fr. manage 623Y1KM Theory and legal fr. manage 623Y1KM Determination of c their 623Y1MU	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge of gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility modulum Physics and Optoelectronics Ground of quantum physics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics compoter network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure ritical infrastructute elements on all levels, their protection systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure with special attention to Emergency Events Management Solution in Transport Infrastructure	Z Z Z Z KZ kz its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ ioware and connect KZ and the self-govern the soft targets. KZ	2 2 4 2 2 4 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive f
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of 3 engineerir 623Y1KM Theory and legal fr. manage 623Y1KM Theory and legal fr. manage 623Y1KM Determination of c their 623Y1MU	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I escurity and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb rg, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge i gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility r Quantum Physics and Optoelectronics. Production of optoelectronics compor Cybernality behavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure critical infrastructute elements on all levels, their protection systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure Emergency Events Management Solution in Transport Infrastructure mergency events with emphasis of the transport infrastructure events and their solution management. Knowledge in the emergency pl	Z Z Z Z KZ kz its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ ioware and connect KZ and the self-govern the soft targets. KZ	2 2 4 2 2 4 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of 1 engineerir 623Y1KM Theory and legal fr manage 623Y1KM Theory and legal fr manage 623Y1KM Determination of c their 623Y1MU Basic solutions of e	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 3 DOS Project 3 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb g, cyber attacks cethology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, i Crisis Management are of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge or gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Production of optoelectronics compor Cybernality behavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure ritical infrastructute elements on all levels, their protection systems, responsibilities to anounce particular asfety provisions. Physical and cyber protection of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure imary or infrastructure events and their solution management. Knowledge in the emergency pl in liquidation work within the transport infrastructure.	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ in KZ in KZ and the self-govern the soft targets. KZ anning and special	2 2 4 2 2 4 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. ion methods 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive filters. 2 ctive 2
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr manages 623Y1KM Theory and legal fr manages 623Y1KM Determination of c their 623Y1MU Basic solutions of e 623Y1OK	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 1 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge - gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics Ground of quantum physics. Application of quantum physics in practice. Optoelectronics. Production of optoelectronics compor Cybernality tehavior on the computer network and computer systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical Infrastructure ritical infrastructure elements on all levels, their protection systems, responsibilities of particular agencies of the state administration tesponsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure mergency Events Management Solution in Transport Infrastructure in liquidation work within the transport infrastructure. Protection of Critical Objects and Infrastructure.	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ in KZ in KZ and the self-govern the soft targets. KZ anning and special KZ	2 2 4 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 3 acts, social ds. 2 2 3 2 4 2 4 2 2 4 2 4 2 2 4 2 4 2 2 4 2 4
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of s engineerir 623Y1KM Theory and legal fr manages 623Y1KM Theory and legal fr manages 623Y1KM Determination of c their 623Y1MU Basic solutions of e 623Y1OK	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits, and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits, and converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, I Crisis Management ame of crisis management with direction to Rescue system (IZS). After introduction to safety domain, there are terms and knowledge gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility m Quantum Physics and Optoelectronics. Cybernality tehavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure critical infrastructure elements on all levels, their protection systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure in liquidation work within the transport Infrastructure in liquidation work within the transport Infrastructure.	Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ in KZ in KZ in KZ and the self-govern the soft targets. KZ anning and special KZ	2 2 4 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 3 acts, social ds. 2 2 3 2 4 2 4 2 2 4 2 4 2 2 4 2 4 2 2 4 2 4
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of a engineerir 623Y1KB Theory and legal fr manage 623Y1KW Theory and legal fr manage 623Y1KW Juridical aspects of 623Y1KV Juridical aspects of 623Y1KV Determination of c their 623Y1MU Basic solutions of e 623Y1OK Types of technolog	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, i Crisis Management ame of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility deantum Physics and Optoelectronics Ground of quantum physics of quantum physics in practice. Optoelectonics. Cyberrolicity Cybernality behavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure tritical infrastructure elements on all levels, their protection systems, responsibilities of particular agenies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure mergency Events Management Solution in Transport Infrastructure mergency events with emphasis of the transport infrastructures in liquidation work within the transport infrastructures in liquidation work within the transport infrastructures infrastructures.	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ on: theory and posi natrix compilation. KZ in KZ in KZ and the self-govern on the soft targets. KZ anning and special KZ ity of critical objects	2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 3 3 4 2 3 3 4 2 3 3 4 2 3 3 4 2 3 3 4 2 3 3 4 3 3 3 4 3 3 3 4 3 3 3 3
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X32D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of a engineerir 623Y1KM Theory and legal fr manar 623Y1KM Theory and legal fr manar 623Y1KO 623Y1KV Juridical aspects of 623Y1KV Determination of c their 623Y1MU Basic solutions of e 623Y1OK Types of technolog 623Y1TP	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 2 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circu gic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security virual cyberspace and communities, taxonomy of crimes in cyb go, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, Crisis Management ame of crisis management with direction to Rescue system (2S). After introduction to safety domain, there are terms and knowledge e gement and its targets; IZS-crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility r Quantum Physics and Optoelectronics Ground of quantum physics. Application of quantum physics in practice. Optoelectronics in cyberstical infrastructure crisis Situation Management in Critical Infrastructure ritical infrastructure elements on all levels, their protection systems, responsibilities of particular agencies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of rifrastructure in liquidation work within the transport Infrastructure retroction of Critical Objects and Infrastructures in liquidation work within the transport infrastructure. Protection of Critical Objects and Infrastructures. Criminal Law in IT and Transportation	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ on: theory and posi natrix compilation. KZ oware and connect KZ and the self-govern the soft targets. KZ anning and special KZ ity of critical objects KZ	2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 3 3 4 2 3 3 4 2 3 4 2 3 3 4 2 3 4 2 3 3 4 2 3 3 4 3 3 4 2 3 3 4 3 3 3 3
622X31D 622X32D 622X32D 623X31D 623X32D 623X32D 623X33D 623Y1EH Types and param Power supplies. Log 623Y1KB Basic concepts of a engineerir 623Y1KM Theory and legal fr manae 623Y1KM Theory and legal fr manae 623Y1KO 623Y1KV Juridical aspects of 623Y1KY Determination of c their 623Y1MU Basic solutions of e 623Y1OK Types of technolog 623Y1TP	photography and photogrammetry. Dynamic measurements of vehicles. High-speed cameras. Project 1 DOS Project 2 DOS Project 3 DOS Project 2 DOS Project 2 DOS Project 3 DOS Project 3 DOS Electronics and hardware in security of transportation eters of signals. Passive circuits, properties, basic measurements. Passive filters, semiconductors. Operational amplifiers, basic circuits. AD converters. Connection of analog and digital parts. Basic blocks of digital signal processing. Measurement processing. I in electronics. Cyber security in transportation security and cyber security, legal status in the field of cyber security, virtual cyberspace and communities, taxonomy of crimes in cyb ng, cyber attack technology, information security, cyber attacks on telematics systems, security of systems with artificial intelligence, i Crisis Management ame of crisis management-crisis planning; and basic legislation. Practical part is concentrated to responsibility deantum Physics and Optoelectronics Ground of quantum physics of quantum physics in practice. Optoelectonics. Cyberrolicity Cybernality behavior on the computer network and computer systems. Cybernetic crime technology. Theory basis and models. Cyberterrorism. In Crisis Situation Management in Critical Infrastructure tritical infrastructure elements on all levels, their protection systems, responsibilities of particular agenies of the state administration responsibilities to anounce particular safety provisions. Physical and cyber protection of critical infrastructure mergency Events Management Solution in Transport Infrastructure mergency events with emphasis of the transport infrastructures in liquidation work within the transport infrastructures in liquidation work within the transport infrastructures infrastructures.	Z Z Z Z Z KZ its, parameters. Ac Design and fabricati KZ erspace, social imp norms and standar KZ on: theory and posi natrix compilation. KZ on: theory and posi natrix compilation. KZ oware and connect KZ and the self-govern the soft targets. KZ anning and special KZ ity of critical objects KZ	2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 3 3 4 2 3 3 4 2 3 4 2 3 3 4 2 3 4 2 3 3 4 2 3 3 4 3 3 4 2 3 3 4 3 3 3 3

623Y1VS	Negotiation and Cooperation	KZ	2
Code of conduct for negotiation. The influence of personality traits on the negotiations. Negotiation and commanding. Teamwork. Variants teams. Informal and formal role in the team.			
Principles of negotiation, the essence of negotiation, the differences in negotiation in business and in crisis situations, the principle of "win both", specifications and bidding, the role of			
trust.			
TV-1	Physical Education	Z	1
TV-2	Physical Education	Z	1
TVKLV	Physical Education Course	Z	0
TVKZV	Physical Education Course	Z	0

For updated information see <u>http://bilakniha.cvut.cz/en/FF.html</u> Generated: day 2025-08-08, time 19:03.