Study plan

Name of study plan: Bachelor TET Common Part of Study Full-Time from 2024/25

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: 90 Elective courses credits: 0 Sum of credits in the plan: 90

Note on the plan:

Name of the block: Compulsory courses Minimal number of credits of the block: 90

The role of the block: Z

Code of the group: 1S-BP-TET-24/25-DC

Name of the group: 1st Sem. Bachelor Full-Time TET from 2024/25

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
611CAL1	Calculus 1 Romana Zibnerová Ond ej Navrátil (Gar.)	Z,ZK	7	2P+4C+22E	B Z	Z
611LA	Linear Algebra Romana Zibnerová Romana Zibnerová Martina Be vá ová (Gar.)	Z,ZK	3	2P+1C+10E	B Z	Z
612ZADY	Introduction to Transportation Engineering Jana Štikarová, Dagmar Ko árková Dagmar Ko árková (Gar.)	Z,ZK	4	2P+2C	Z	Z
618MTY	Materials Science and Engineering Vít Malinovský Jaroslav Valach (Gar.)	Z,ZK	3	2P+1C+10E	B Z	Z
611GIE	Geometry Vít Malinovský Šárka Vorá ová (Gar.)	KZ	3	2P+2C+12E	B Z	Z
614ASD	Algorithm and Data Structures Jan Mejst ik	KZ	3	0P+2C+8E	Z	Z
618TKK	Technical Drawing and Designing Vít Malinovský	KZ	4	2P+2C	Z	Z
616UDOP	Introduction into Vehicles Zuzana Radová Petr Bouchner (Gar.)	Z	2	2P+0C+8E	S Z	Z
TV-1	Physical Education	Z	1		Z	Z

Characteristics of the courses of this group of Study Plan: Code=1S-BP-TET-24/25-DC Name=1st Sem. Bachelor Full-Time TET from 2024/25

611CAL1	Calculus 1	Z,ZK	7				
Sequence of real numb	ers and its limit. Basic properties of mappings. Function of one real variable, its limit and derivative. Indefinite integral, Newton in	tegral, Riemann iı	ntegral, improper				
Riemann integral. First-	order differential equations, linear differential equations.						
611LA	Linear Algebra	Z,ZK	3				
Vector spaces (linear c	Vector spaces (linear combinations, linear independence, dimension, basis, coordinates). Matrices and operations. Systems of linear equations and their solvability. Determinants an						
their applications. Scala	ar product. Similarity of matrices (eigenvalues and eigenvectors). Quadratic forms and their classification.						
612ZADY	Introduction to Transportation Engineering	Z,ZK	4				
618MTY	Materials Science and Engineering	Z,ZK	3				
Basic course of materia	ls science and engineering explains mechanical properties of structural materials based on their bonding forces and microstru	ucture. However th	ne main attention				
is paid to metals as the	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	es in materials, to defectoscopy and to main mechanical tests.						
611GIE	Geometry	KZ	3				
1							

Orthographic and oblique projections, linear perspective. Topographic surfaces and their orthogonal projection. Differential geometry of curves - parameterization, arc of the curve, torsion and curvature, Frenet's trihedron. Kinematics - a curve as a trajectory of the motion, the velocity and acceleration of a particle moving on a curved path.

614ASD	Algorithm and Data Structures	KZ	3		
Students will be familiar	Students will be familiarized with selected basic and derived data structures, algorithms, their properties and their design procedure. Students will analyze problems, propose theoretical				
solutions to the set task	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 basics of Boolean				
algebra with forming the	algebra with forming the conditions for the algorithms.				
618TKK	Technical Drawing and Designing	KZ	4		
616UDOP	Introduction into Vehicles	Z	2		
Vehicles and transporta	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-23/24-DC

Name of the group: 2nd 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 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+20B	L	Z
611STAT	Statistics Pavel Provinský, Evženie Uglickich, Pavla Pecherková, Michal Matowicki Pavla Pecherková Pavel Provinský (Gar.)	Z,ZK	4	2P+2C+12B	L	Z
612ZTS	Railway Lines and Stations Tomáš Javo ík, Ond ej Trešl	Z,ZK	4	2P+2C+10B	L	Z
618SAT	Structural Analysis Tomáš Doktor Daniel Kytý (Gar.)	Z,ZK	4	2P+2C+14B	L	Z
620SYSA	Systems Analysis Petr Bureš, Eva Haj iarová, Ji í R ži ka Zuzana B linová (Gar.)	Z,ZK	5	2P+2C+14B	L	Z
614PRG	Programming Libor Žídek	KZ	2	0P+2C+8B	L 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+8B	L	Z
TV-2	Physical Education	Z	1		L	Z

Characteristics of the courses of this group of Study Plan: Code=2S-BP-TET-23/24-DC Name=2nd Sem. Bachelor Full-Time TET from 2023/24

611CAL2	Calculus 2	Z,ZK	5
Linear differential equa	tions and their systems, differential calculus of functions of several real variables. Riemann integral in Rn. Line and surface in	egrals.	<u>'</u>
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	n. Testing of statis	stical hypothesis.
Regression and correla	ation, linear regression, correlation coefficient, coefficient of determination, the general linear model, statistical inference in linea	ır regression, ana	lysis of variance,
multiple regression, th	e use of matrices in regression.		
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	is 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 ford	es in plane and space. Calculation of reactions of bodies and structures. Assessment of internal forces on statically determina	te 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 constructio	ns. Cross-section	al characteristics
of planar shapes. Fibe	polygons and chains.		
620SYSA	Systems Analysis	Z,ZK	5
Introduction to system	sciences, system viewpoint, terminology, typical system analysis tasks, system identification, system interface and interface ta	sks, processes, s	ystem behaviour
and its analysis, strong	functions and processes, genetic code, system identity, system architecture. Tools for system analysis - Petri nets, decision to	ables, algorithms	for structural
tasks. Soft and hard sy	stems, methods for soft system analysis.		
614PRG	Programming	KZ	2
Algorithm developmen	t, methods of structured programming, high-level programming languages, basics of C programming languages (types, variab	les, conditions, cy	ycles, arrays,
functions), programmi	ng techniques, complexity.		
617TEDL	Transport Technology and Logistics	KZ	3
Basic terms in transpo	rt 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	sing various trans	sport modus.
621ZALD	Basics of Air Transport	KZ	2
History, definitions, terr	ninology, basic rules. VFR/IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigation, radio navigati	on. Weight, balan	ce, performance.
Flight planning, optimize	ration of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of aircraft. Traffic management, g	round handling, s	security. Air crew.
Airlines and economic	s. Space technologies.		
TV-2	Physical Education	Z	1

Code of the group: 3S-BP-TET-24/25-DC

Name of the group: 3rd Sem. Bachelor Full-Time TET from 2024/25

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	B Z	Z
611TGA	Graph Theory and its Applications in Transport Denisa Mocková, Dušan Teichmann, Andrea Hrní ková Denisa Mocková Denisa Mocková (Gar.)	Z,ZK	4	2P+2C+12B	z Z	Z
618PZP	Elasticity and Strength Tomáš Doktor Ond ej Jiroušek (Gar.)	Z,ZK	3	2P+1C+10B	B Z	Z
620UITS	Introduction to Intelligent Transport Systems Vladimír Faltus Pavel Hrubeš (Gar.)	Z,ZK	7	3P+2C+20B	B Z	Z
612PPOK	Designing Roads, Highways and Motorways Josef Kocourek, Tomáš Pad lek, Petr Kumpošt	KZ	3	1P+2C+10B	B Z	Z
614DATS	Database Systems Ond ej Smíšek Jana Kaliková (Gar.)	KZ	2	1P+1C+10B	B Z	Z
615JZ1A	Foreign Language - English 1	Z	3	0P+4C+10B	B Z	Z

Characteristics of the courses of this group of Study Plan: Code=3S-BP-TET-24/25-DC Name=3rd Sem. Bachelor Full-Time TET from 2024/25

611FYZ	Physics	Z,ZK	5
Kinematics, dynam	ics, 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 t	raffic flow and methods for their measurement. Models of the traffic flow, communications load, line and urban systems. Theory	of queues, shock wa	aves. Quality o
transport and its as	sessment. Statistical characteristics of transport. Transport excesses, their analysis, the causes, identify and minimize the cons	equences. Improving	of transport
safety and fluency.			
611TGA	Graph Theory and its Applications in Transport	Z,ZK	4
Basic terms of grap	h theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in a	other scientific discip	lines.
618PZP	Elasticity and Strength	Z,ZK	3
Tension and compr	ession. Bending of beam. Shear stress during bending of beam. Design and analysis of cross section of beam. Design of riveted,	bolted and welded jo	oint of structure
Analysis of deflecti	on curve of beam. Torsion of circle cross section. Combined loading. Stability of compressed bar and buckling. Beam on elastic	foundation. Strength	analysis.
620UITS	Introduction to Intelligent Transport Systems	Z,ZK	7
Terminology and le	gislative framework telematics systems and their architecture. Telematics systems in practice and their operation. Fundamentals of	f information and tele	communicatio
systems for ITS. Pr	nciples and technical support measurement of traffic data, localization and navigation. Practical work with traffic data. Real exar	mples of possible app	olications of th
principles of ITS.			
612PPOK	Designing Roads, Highways and Motorways	KZ	3
Definition, types, or	vnership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and stan-	dard speed. Route ir	rural areas.
Range of vision for	stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads.	Safety device. Cross	sings, junctions
intersections.			
	Database Systems	KZ	2
614DATS	Database Systems latabase systems, conceptual model, relational data model, the principles of normal forms, relational database design, security		_
614DATS Basic concepts of c			_
· · · · · · · · · · · · · · · · · · ·	latabase systems, conceptual model, relational data model, the principles of normal forms, relational database design, security		_
614DATS Basic concepts of of queries, relational a	latabase systems, conceptual model, relational data model, the principles of normal forms, relational database design, security algebra, SQL language, client / server, multilayer architectures, distributed database systems. Access to data via the WWW.	and integrity of data	, database

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-24/25-DC

Name of the group: Bachelor Full-Time TET voluntary from 2024/2025

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
618STKK	Seminary from Technical Drawing and Designing	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
TVKZV	Physical Education Course	Z	0	7dní	Z	V
TVKLV	Physical Education Course	Z	0	7dní	L	V

Characteristics of the courses of this group of Study Plan: Code=VP-BP-TET-24/25-DC Name=Bachelor Full-Time TET voluntary from 2024/2025

2024/2025			
614DPK	Digital Support for Designing of Roads and Highways	Z	0
Seminars possibilit	lities of technical processing problems focused on designing of roads and highways.		
614DZT	Digital Support for Railway Lines	Z	0
Seminars possibilit	lities of technical processing problems solved in the field of railway lines.	'	1
611SCFZ	Seminar of Physics	Z	0
Solving problems of	on kinematics, particle dynamics, dynamics of particle systems and rigid body. Continuum mechanics, thermodynamic	cs.	
621SLD	Seminar of Air Transport	Z	0
History, definitions	s, terminology, basic rules. VFR / IFR. Basics of aerodynamics. Propulsion of aircraft. Aircraft design. Basics of navigati	ion, radio navigation. Weight,	balance,
performance. Fligh	ht planning, optimization of speed and heights, minimum fuel. Limitations of operation, maintenance, service life of airc	craft. Traffic management, gro	ound handling,
	Airlines and accompaige Charactechnologies		
security. Air crew. F	Airlines and economics. Space technologies.		
618SPP	Seminary from Elasticity and Strength	Z	0
618SPP		-	1
618SPP Excersise for pract	Seminary from Elasticity and Strength	-	1
618SPP Excersise for pract	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross	-	1
618SPP Excersise for pract of beam. Torsion of	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling.	section of beam. Analysis of	deflection curve
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing	section of beam. Analysis of	deflection curve
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS Examples for pract	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing Seminary from Structural Analysis	section of beam. Analysis of Z Z innate beam and simple frame	deflection curve
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS Examples for pract of principle of virtu	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing Seminary from Structural Analysis ctise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determ	section of beam. Analysis of Z Z innate beam and simple frame	deflection curve
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS Examples for pract of principle of virtu	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing Seminary from Structural Analysis ctise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinal works for calculation of reactions of statically determinate systems. Determination of axial forces in truss constructions.	section of beam. Analysis of Z Z innate beam and simple frame	deflection curve
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS Examples for pract of principle of virtu Geometry of cross 611SSF	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing Seminary from Structural Analysis ctise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinal works for calculation of reactions of statically determinate systems. Determination of axial forces in truss constructions sections. Plane fiber polygons.	section of beam. Analysis of Z Z innate beam and simple frame	deflection curve 0 0 ework. Application thod of sections.
618SPP Excersise for pract of beam. Torsion of 618STKK 618SS Examples for pract of principle of virtu Geometry of cross 611SSF	Seminary from Elasticity and Strength ctice. Tension and compression. Bending of beam. Shear stress during bending of beam. Design and analysis of cross of circle cross section. Combined loading. Stability of compressed bar and buckling. Seminary from Technical Drawing and Designing Seminary from Structural Analysis ctise. General system of forces. Reactions of mass objects and compound systems. Internal forces on statically determinal works for calculation of reactions of statically determinate systems. Determination of axial forces in truss constructions sections. Plane fiber polygons. Secondary School Physics Course	section of beam. Analysis of Z Z innate beam and simple frame	deflection curve 0 0 ework. Application thod of sections.

List of courses of this pass:

Code	Name of the course	Completion	Credits
611CAL1	Calculus 1	Z,ZK	7
Sequence of real no	umbers and its limit. Basic properties of mappings. Function of one real variable, its limit and derivative. Indefinite integral, Newton integr	ral, Riemann integr	al, improper
	Riemann integral. First-order differential equations, linear differential equations.		
611CAL2	Calculus 2	Z,ZK	5
Linea	r differential equations and their systems, differential calculus of functions of several real variables. Riemann integral in Rn. Line and	surface integrals.	
611FYZ	Physics	Z,ZK	5
	Kinematics, dynamics, Newton's laws, force fields, mechanics of continuum, thermodynamics, introduction to electrostatics and electrostatics and electrostatics are electrostatics.	ric current.	'
611GIE	Geometry	KZ	3
Orthographic and	oblique projections, linear perspective. Topographic surfaces and their orthogonal projection. Differential geometry of curves - param	neterization, arc of	the curve,
torsion	and curvature, Frenet's trihedron. Kinematics - a curve as a trajectory of the motion, the velocity and acceleration of a particle movin	g on a curved path	
611LA	Linear Algebra	Z,ZK	3
Vector spaces (line	ar combinations, linear independence, dimension, basis, coordinates). Matrices and operations. Systems of linear equations and the	r solvability. Deterr	minants and
	their applications. Scalar product. Similarity of matrices (eigenvalues and eigenvectors). Quadratic forms and their classificati	on.	
611SCFZ	Seminar of Physics	Z	0
	Solving problems on kinematics, particle dynamics, dynamics of particle systems and rigid body. Continuum mechanics, thermody	namics.	
611SSF	Secondary School Physics Course	Z	0
	Basics of kinematics, dynamics, thermodynamics, electric field and magnetic field.	'	'

611STAT	Statistics	Z,ZK	4
	ility, random variable and its description, known distributions, random vector, function of random variable. Methods of point estimation. T		hypothesis.
	relation, linear regression, correlation coefficient, coefficient of determination, the general linear model, statistical inference in linear re		
· ·	multiple regression, the use of matrices in regression.		
611TGA	Graph Theory and its Applications in Transport	Z,ZK	4
l l	graph theory, paths in graphs, flows in networks, location problems, design problems on graphs, optimum routing, use of graphs in o		
			3
612MDE	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 qu	Z,ZK	
	issessment. Statistical characteristics of transport. Transport excesses, their analysis, the causes, identify and minimize the consequence.		- 1
transport and its a	safety and fluency.	ences. Improving o	il transport
642000	· · ·	KZ	
612PPOK	Designing Roads, Highways and Motorways		3
	ownership, maintenance, management and categorization of roads and highways. Curve and transition curve. Sinuosity and standard		II.
Range of vision for	stopping and overtaking. Road body - shapes and proportions, bottom and superstructure. Drainage and components of roads. Safet	y device. Crossing	s, junctions,
	intersections.		
612ZADY	Introduction to Transportation Engineering	Z,ZK	4
612ZTS	Railway Lines and Stations	Z,ZK	4
Rail transport. Ra	ilway track geometry parameters. Route layout of railway lines. Railway line construction - railway substructure and superstructure. S	patial layout of rail	way lines.
	Railway control systems in relation to infrastructure. Operating and carriage points. Railway lines net and category. Traction in rail tr	ansport.	
614ASD	Algorithm and Data Structures	KZ	3
	niliarized with selected basic and derived data structures, algorithms, their properties and their design procedure. Students will analyze		-
	et task and the resulting algorithm write by means of flowcharts, practice in reading algorithms recorded by means of the flowchart ar		II.
	algebra with forming the conditions for the algorithms.		
614DATS	Database Systems	KZ	2
	ا f database systems, conceptual model, relational data model, the principles of normal forms, relational database design, security and		
	queries, relational algebra, SQL language, client / server, multilayer architectures, distributed database systems. Access to data via t		ualabase
1			
614DPK	Digital Support for Designing of Roads and Highways	Z	0
	Seminars possibilities of technical processing problems focused on designing of roads and highways.		
614DZT	Digital Support for Railway Lines	Z	0
	Seminars possibilities of technical processing problems solved in the field of railway lines.		
614PRG	Programming	KZ	2
Algorithm develor	oment, methods of structured programming, high-level programming languages, basics of C programming languages (types, variable	s, conditions, cycle	es, arrays,
	functions), programming techniques, complexity.		
615JZ1A	Foreign Language - English 1	Z	3
	ures and style. Selection of conversation topics relating to transportation sciences. Extending vocabulary, developing perceptive and cor	nmunicative skills.	' '
	stylistics forms. Oral and written presentation of original research. Academic text principles and reading comprehension. Principles of		1
		n metone.	II.
616LIDOP			2
616UDOP	Introduction into Vehicles	Z	2
	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water	Z	1
Vehicles and trans	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation.	Z r transport. Alterna	ative means
Vehicles and trans	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation. Transport Technology and Logistics	Z r transport. Alterna KZ	ative means
Vehicles and trans	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation. Transport Technology and Logistics sport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight trans	Z r transport. Alterna KZ sport, organisation	ative means 3 n of traffic in
Vehicles and trans 617TEDL Basic terms in transeach transport me	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation. Transport Technology and Logistics sport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transports, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usi	Z r transport. Alterna KZ sport, organisation ng various transpo	3 of traffic in ort modus.
Vehicles and trans 617TEDL Basic terms in transeach transport me 618MTY	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation. Transport Technology and Logistics sport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transports, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usi Materials Science and Engineering	Z r transport. Alterna KZ sport, organisation ng various transpo Z,ZK	3 of traffic in ort modus.
Vehicles and trans 617TEDL Basic terms in transeach transport me 618MTY Basic course of materials	Introduction into Vehicles portation systems. Functionality and setup. Movement and drive principles. Engines and their characteristics. Rail, road, air and water of transport. Lifting equipment and conveyors. Legislation. Transport Technology and Logistics sport technology and logistics, particular steps of transport planning, line planning, timetabling, planning in pasanger and freight transpodus, technologic factors of the side of operator and client, organisation of city transport, logistic technologies and their aplication usi Materials Science and Engineering terials science and engineering explains mechanical properties of structural materials based on their bonding forces and microstructure.	Z r transport. Alterna KZ sport, organisation ng various transpo Z,ZK re. However the ma	3 of traffic in ort modus. 3 ain attention
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TV-1	Physical Education	Z	1		
TV-2	Physical Education	Z	1		
TVKLV	Physical Education Course	Z	0		
TVKZV	Physical Education Course	Z	0		

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