Recomended pass through the study plan

Name of the pass: Master Full-Time DS from 2024/25

Faculty/Institute/Others:

Department:

Pass through the study plan: Master Full-Time DS from 2024/25 Branch of study guranteed by the department: Welcome page

Guarantor of the study branch:

Program of study: Transportation Systems and Technology

Type of study: Follow-up master full-time

Note on the pass:

Coding of roles of courses and groups of courses:

P - compulsory courses of the program, PO - compulsory courses of the branch, Z - compulsory courses, S - compulsory elective courses, PV - compulsory elective courses, F - elective specialized courses, V - elective courses, T - physical training courses

Coding of ways of completion of courses (KZ/Z/ZK) and coding of semesters (Z/L):

KZ - graded assesment, Z - assesment, ZK - examination, L - summer semester, Z - winter semester

Number of semester: 1

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members)	Completion	Credits	Scope	Semester	Role
14GISS	Tutors, authors and guarantors (gar.) Geographical Information Systems Vit Fábera, František Kekula, Tomáš Janata, Zuzana Purkrábková Tomáš Janata Tomáš Janata (Gar.)	KZ	2	0P+2C+8B	Z	Z
18GAZ	Geomechanics and Foundation Engineering Jitka ezní ková, Linda erná Vydrová, Vít Malinovský Linda erná Vydrová Linda erná Vydrová (Gar.)	Z,ZK	3	2P+1C	Z	Z
12IKD	Rail Transport Infrastructure Lukáš Týfa, Ond ej Trešl	Z,ZK	5	2P+2C	Z	Z
15J2A1	Language - English 1 Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová	Z	2	0P+2C+10B	Z	Z
22MSV	Modelling and Vehicle Movement Simulation Michal Frydrýn, Drahomír Schmidt Michal Frydrýn Drahomír Schmidt (Gar.)	KZ	2	0P+2C	Z	Z
18TIK	Theory of Engineering Structures Petr Koudelka, Petr Zlámal, Ond ej Jiroušek, Ján Kopa ka Ond ej Jiroušek Ond ej Jiroušek (Gar.)	Z,ZK	4	2P+1C	Z	ZP
12TKVP	Highway Engineering Materials Otakar Vacín	Z,ZK	4	2P+2C	Z	Z
15JCZ1	Czech Language for Foreign Students 1 Irena Veselková	Z	0	0P+2C	Z	Z
X2-NP-DS-20/21	Projekty Mgr. prezen ní DS od 2020/21 11XN1,12XN1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 13/13			ZP
1S-NP-DS-V1-22/23	1. sem. Mgr. prezen ní DS výb r p edm tu od 2022/23 17DOPD,17TZND	Min. cours. 1 Max. cours. 1	Min/Max 4/4			Z
JZ-NP-DS-20/21	Jazyky Mgr. prezen ní DS od 2020/21 15J2F1,15J2I1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 8/8			J

Number of semester: 2

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
22AMMD	Measuring Methods Applied to Transportation Michal Frydrýn, Drahomír Schmidt, Luboš Nouzovský, Zden k Svatý, Tomáš Mi unek Luboš Nouzovský Tomáš Mi unek (Gar.)	KZ	4	1P+3C	L	Z
15JBA2	Language - English 2 Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová,	Z	2	0P+2C+10B	L	Z
12NAPI	Design and Maintenance of Transportation Structures Gabriela Sidorinová, Otakar Vacín	Z,ZK	4	2P+2C	L	Z
16PDP	Principles of Vehicle Design Jaroslav Machan, Jan Leistner, Filip Kotas, David Lehet Jaroslav Machan (Gar.)	ZK	2	2P+0C+8B	L	Z
12UMUP	Sustainable Mobility and Land - Use Planning Dagmar Ko árková, Václav Novotný Dagmar Ko árková (Gar.)	Z,ZK	5	2P+2C	L	ZP
12ZSUZ	Railway Stations and Centres Ond ej Trešl, Martin Jacura, Tomáš Javo ík	Z,ZK	3	2P+1C	L	Z
15JCZ2	Czech Language for Foreign Students 2 Irena Veselková	Z	0	0P+2C	L	Z
X2-NP-DS-20/21	Projekty Mgr. prezen ní DS od 2020/21 11XN1,12XN1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 13/13			ZP
2S-NP-DS-V-20/21	2. sem. Mgr. prezen ní DS výb r p edm tu od 2020/21 12BED,18TEAM	Min. cours. 1 Max. cours.	Min/Max 4/4			Z
JZ-NP-DS-20/21	Jazyky Mgr. prezen ní DS od 2020/21 15J2F1,15J2I1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 8/8			J

Number of semester: 3

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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
15JCZ3	Czech Language for Foreign Students 3 Irena Veselková	Z		0P+2C	Z	ZP
12DAZP	Transport and Environment Kristýna Neubergová, Tomáš Javo ík	Z,ZK	4	2P+1C	Z	Z
15JBA3	Language - English 3 Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová,	Z	2	0P+2C+10B	Z	J
11STS	Stochastic Systems Evženie Uglickich, Šárka Vorá ová, Natálie Blahitka, Michal Matowicki, Pavla Pecherková Pavla Pecherková Šárka Vorá ová (Gar.)	Z,ZK	4	2P+2C+14B	Z	PV
12TEAP	Theory of Road Traffic Operation Zuzana arská, Vladimír Faltus	Z,ZK	7	3P+2C	Z	V
12VRZ	High Speed Rail Transport Lukáš Týta	KZ	3	2P+0C	Z	
X2-NP-DS-20/21	Projekty Mgr. prezen ní DS od 2020/21 11XN1,12XN1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 13/13			ZP
JZ-NP-DS-20/21	Jazyky Mgr. prezen ní DS od 2020/21 15J2F1,15J2l1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 8/8			J

Number of semester: 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
15JCZ4	Czech Language for Foreign Students 4 Irena Veselková	Z		0P+2C	L	Z
15JBA4	Language - English 4 Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová,	ZK	2	0P+2C+10B	L	ZP
X2-NP-DS-20/21	Projekty Mgr. prezen ní DS od 2020/21 11XN1,12XN1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 13/13			ZP
JZ-NP-DS-20/21	Jazyky Mgr. prezen ní DS od 2020/21 15J2F1,15J2l1, (see the list of groups below)	Min. cours. 4 Max. cours. 4	Min/Max 8/8			J

List of groups of courses of this pass with the complete content of members of individual groups

Kód				I codes of members of this or below the list of courses		pletion	Credi	s Scope	Semester	Role
1S-NP-D	9S-V1-22/23	1. sem. Mgr. preze	n ní DS výb	r p edm tu od 2022/23		cours. 1 cours. 1	Min/M 4/4	ax		z
17DOPD	Transporta	tion Planning and Mode	17TZND	Technology of Railway Transport	1		I		1	
	DS-V-20/21	Ţ.		r p edm tu od 2020/21		cours. 1 cours. 1	Min/M 4/4	ах		z
12BED	Road Safe	ty Audit	18TEAM	Theoretical and Applied Mechanic			1			
JZ-NP-	-DS-20/21	Jazyky M	gr. prezen ní	DS od 2020/21		cours. 4 cours. 4	Min/M 8/8	ax		J
15J2F1	Language	- French 1	15J2l1	Language - Italian 1	1	15J2N1	<u> </u>	Language - G	erman 1	
15J2R1	Language	- Russian 1	15J2S1	Language - Spanish 1		15JBF2		Language - French 2		
15JBI2	Language	- Italian 2	15JBN2	Language - German 2		15JBR2		Language - Russian 2		
15JBS2	Language	- Spanish 2	15JBF3	Language - French 3		15JBI3		Language - Ita	alian 3	
15JBN3	Language	- German 3	15JBR3	Language - Russian 3		15JBS3		Language - S	panish 3	
15JBF4	Language		15JBI4	Language - Italian 4		15JBN4		Language - G	erman 4	
15JBR4	Language	- Russian 4	15JBS4	Language - Spanish 4						
X2-NP-	-DS-20/21	Projekty M	lgr. prezen n	í DS od 2020/21		cours. 4 cours. 4	Min/M 13/13			ZP
11XN1	Master Pro	iect 1	12XN1	Master Project 1		14XN1	1	Master Projec		
15XN1	Master Pro	<u> </u>	16XN1	Master Project 1		17XN1		Master Project		
18XN1	Master Pro	•	20XN1	Master Project 1		21XN1		Master Projec		
22XN1	Master Pro	<u> </u>	23XN1	Master Project 1		11XN2	+	Master Projec		
12XN2	Master Pro	<u> </u>	14XN2	Master Project 2		15XN2		Master Projec		
16XN2	Master Pro	pject 2	17XN2	Master Project 2		18XN2		Master Project 2		
20XN2	Master Pro	oject 2	21XN2	Master Project 2		22XN2		Master Projec	et 2	
23XN2	Master Pro	oject 2	11XN3	Master Project 3		12XN3		Master Projec	et 3	
14XN3	Master Pro	ect 3	15XN3	Master Project 3		16XN3		Master Projec	et 3	
17XN3	Master Pro	ject 3	18XN3	Master Project 3		20XN3		Master Projec	et 3	
21XN3	Master Pro	•	22XN3	Master Project 3		23XN3		Master Projec		
11XN4	Master Pro	•	12XN4	Master Project 4		14XN4		Master Projec		
15XN4	Master Pro	ject 4	16XN4	Master Project 4		17XN4		Master Projec	t 4	

	18XN4	Master Project 4	20XN4	Master Project 4	21XN4	Master Project 4
Γ	22XN4	Master Project 4	23XN4	Master Project 4		

List of courses of this pass:

Code	Name of the course	Completion	Credits
11STS	Stochastic Systems	Z,ZK	4
The subject deals	with the problems of mathematical modelling of dynamical systems, estimation od these models and their utilization for prediction.	The results are illus	strated on
practical tran	sportation tasks. Mathematical theory roots from probability and mathematical statistics and they use the methods of the Bayesian	probabilistic appro	ach.
11XN1	Master Project 1	Z	2
11XN2	Master Project 2	Z	2
11XN3	Master Project 3	Z	1
11XN4	Master Project 4	Z	8
12BED	Road Safety Audit	Z,ZK	4
Schedules of applica	tions of safety assessments (especially Road Safety Audit, Road Safety Inspection) during the process of preparations, and of the p		of the roa
network that should	minimize traffic accident risks for all those who take part in road traffic. Application of European Directive 2008/96/EC on road safe	ty infrastructure ma	anagement
12DAZP	Transport and Environment	Z,ZK	4
This course aims the	impact of transport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy demands. parcel of this course.	The noise measury	y is part and
12IKD	Rail Transport Infrastructure	Z,ZK	5
Non-compensated la	teral acceleration, parameters eduction for transition curve and cant transition, curves without straight, track spacing change. Track deta		ubstructur
	design, slab track. Tram-train. Interoperability. Noise precautions. Railway line modernization for non-tilting and tilting trains	š.	
12NAPI	Design and Maintenance of Transportation Structures	Z,ZK	4
Design and constru	action of cement-concrete pavements and their maintenance. Construction of bridge objects, examples and choice of bridge constru	uction materials. Co	onstruction
	and operation of tunnels.		
12TEAP	Theory of Road Traffic Operation	Z,ZK	7
	s and their measurement, acquisition and processing. Road capacity analysis. Theoretical foundations and applications of mathema		
statistical and micr	roscopic traffic models. Theory of traffic management. Traffic light signals, roundabouts, coordination, public transport priority. Urbar	ı and highway man	agement.
	Traffic excesses management. Road assessment and maintenance methods. Health risks assessment.		
12TKVP	Highway Engineering Materials	Z,ZK	. 4
The theory of road	construction - Material Aspects. The course emphasizes the development of road construction from the beginning of the 20th century	ry to the present, f	ocusing on
4011141111	materials, understanding the production and placing of asphalt mixtures.	7.71/	_
12UMUP	Sustainable Mobility and Land - Use Planning	Z,ZK	5
	objectives and tasks, development over time. Land-use planning tools. SUMP. Territorial and transport planning context. Ways of urb ciples of the transport solution. The impact of transport on the size and shape of the city, on the development of the street and the s	-	
iransport. Dasic print	for pedestrian and bicycle transport. Suburbanization and transport. City economics.	quare and the road	is. Solution
12VRZ	High Speed Rail Transport	KZ	3
I .	HSR) transport characteristics and position in transportation system. Types / models of HSR systems, preparation of high speed rail	1	_
	Non-adhesion HSR systems. City and region traffic service by HSR. HSR operating points. HSR worldwide network. HSR routing a		
	of HSR track construction and layout track parameteres.		
12XN1	Master Project 1	Z	2
12XN2	Master Project 2	Z	2
12XN3	Master Project 3	Z	1
12XN4	Master Project 4	Z	8
12ZSUZ	Railway Stations and Centres	Z,ZK	3
	nger transport. Platform construction. Access roads to platforms. Modification of railway stations according to the TSI PRM. Station I		_
1.1	of station heads for current ride. Junction stations. Crossing stations. Passenger stations. Moving stations. Public transport term	_	
14GISS	Geographical Information Systems	KZ	2
	of saving format of space-oriented information land-survey and cartography minimum basic tasks of spatial operations principles o		
14XN1	Master Project 1	Z	2
14XN2	Master Project 2	Z	2
14XN3	Master Project 3	Z	1
14XN4	Master Project 4	Z	8
15J2A1	Language - English 1	Z	2
	Language - English i sentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work	1	
15J2F1	Language - French 1	Z	2
	Language - Fierich i ures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills		
	it, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and ter		
	language of management.		
15J2I1	* * * *	7	2
15J2I1 Grammatical Structu	Language - Italian 1 ures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	Z , feedback skills, su	2 ummarising
Grammatical Structu	Language - Italian 1	, feedback skills, st	ı ummarising

4 E 10 N 14	Longuage Cormon 1	Z	2
15J2N1	Language - German 1	_	l l
Grammatical Struc	ctures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	s, feedback skills,	summarising
technical text conte	ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and te-	chnical registers	and their use,
	language of management.		
45 1004		7	
15J2R1	Language - Russian 1	Z	2
Grammatical Struc	ctures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	s, feedback skills,	summarising
technical text conte	ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and te	chnical registers	and their use,
	language of management.		
45 1004		7	
15J2S1	Language - Spanish 1	Z	2
Grammatical Struc	ctures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	, feedback skills,	summarising
technical text conte	ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and te	chnical registers	and their use,
	language of management.		
45 10 40		7	
15JBA2	Language - English 2	Z	2
P	resentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work	engagement.	
15JBA3	Language - English 3	Z	2
	s - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.Op	_	ı
Fresentation Skill		olional courses to	i certificates
	FCE, CAE.		
15JBA4	Language - English 4	ZK	2
	s - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.Op	ı otional courses fo	r certificates
1 1000manon om		olional oddioco io	. cortinoatoo
	FCE, CAE.		
15JBF2	Language - French 2	Z	2
Grammatical Struc	tures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	, feedback skills.	summarising
			_
COMMON CONTROL	ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and termination	ominual registers	unu men use,
	language of management.		
15JBF3	Language - French 3	Z	2
	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of	language etructui	1
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and perceptive an	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	with (professiona	i) text and its
	features. Practice of oral and written presentation.		
15JBF4	Language - French 4	ZK	2
		1	1
=	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of		-
and perceptive an	d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	with (professiona	l) text and its
	features. Practice of oral and written presentation.		
15JBI2	Language - Italian 2	Z	2
		_	l l
Grammatical Struc	ctures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills	s, feedback skills,	summarising
technical text conte	ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and te	chnical registers	and their use,
	language of management.		
4 <i>E</i> ID12	1 11 2		
		7	2
15JBI3	Language - Italian 3	Z	2
	Language - Italian 3 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of l	_	I
Grammar and styl		ı — language structuı	e knowledge
Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of d communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	ı — language structuı	e knowledge
Grammar and styl and perceptive an	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of ld communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	language structur with (professiona	re knowledge I) text and its
Grammar and styl and perceptive an 15JBI4	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4	language structur with (professiona	re knowledge II) text and its
Grammar and styl and perceptive an 15JBI4	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of ld communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	language structur with (professiona	re knowledge II) text and its
Grammar and styl and perceptive an 15JBI4 Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of least or strength of the language level and study focus at the Faculty.	language structur with (professiona ZK language structur	re knowledge al) text and its 2 re knowledge
Grammar and styl and perceptive an 15JBI4 Grammar and styl	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work	language structur with (professiona ZK language structur	re knowledge al) text and its 2 re knowledge
Grammar and styl and perceptive an 15JBI4 Grammar and styl and perceptive an	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	ZK language structur with (professiona ZK language structur with (professiona	e knowledge I) text and its 2 Te knowledge I) text and its
Grammar and styl and perceptive an 15JBI4 Grammar and styl and perceptive an 15JBN2	Istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - German 2	ZK language structur	e knowledge I) text and its 2 Te knowledge I) text and its 2
Grammar and styl and perceptive an 15JBI4 Grammar and styl and perceptive an 15JBN2	istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation.	ZK language structur	e knowledge I) text and its 2 Te knowledge I) text and its 2
Grammar and styl and perceptive an 15JBI4 Grammar and styl and perceptive an 15JBN2 Grammatical Struc	Istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - German 2	with (professional ZK language structur with (professional ZK language structur with (professional Z s, feedback skills,	e knowledge I) text and its 2 Te knowledge I) text and its 2 summarising
Grammar and styl and perceptive an 15JBI4 Grammar and styl and perceptive an 15JBN2 Grammatical Struc	Istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - Italian 4 istics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of a communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work features. Practice of oral and written presentation. Language - German 2 stures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills ent, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and te	with (professional ZK language structur with (professional ZK language structur with (professional Z s, feedback skills,	e knowledge I) text and its 2 Te knowledge I) text and its 2 summarising
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	features. Practice of oral and written presentation.		_
15JCZ1	Czech Language for Foreign Students 1	Z	0
Basic structure	s of Czech language, common communication situations, study, work, leisure time activities, introduction of myself, phonetics of Czec	ch language, writir	ng skills.
15JCZ2	Czech Language for Foreign Students 2	Z	0
Basic structure	s of Czech language, common communication situations, study, work, leisure time activities, introduction of myself, phonetics of Czec	ch language writir	na skills
			T T
15JCZ3	Czech Language for Foreign Students 3	Z	1
	Language structures with regard to the group level. Listening and oral fluency drill. Basic terminology.		
15JCZ4	Czech Language for Foreign Students 4	Z	
	Language structures with regard to the group level. Listening and oral fluency drill. Basic terminology.		•
15XN1	Master Project 1	Z	2
	,		
15XN2	Master Project 2	Z	2
15XN3	Master Project 3	Z	1
15XN4	Master Project 4	Z	8
	·		
16PDP	Principles of Vehicle Design	ZK	2
Design of transp	ortation vehicle according to its usage and function. Marketing and user demands. Vehicle dynamics. Propulsion systems. Design pro	cess, functional d	esign and
	vehicle structure. Evaluation of variant concepts. Design phases. Realiability, technological aspects etc.		
16XN1	Master Project 1	Z	2
16XN2	Master Project 2	Z	2
	•		-
16XN3	Master Project 3	Z	1
16XN4	Master Project 4	Z	8
17DOPD	Transportation Planning and Modeling	Z,ZK	1
_	ls used within four step model (trip generation, trip distribution, mode choice and trip distribution). Mobility and availability in urban a	•	tranda far
basic steps and to		eas, iailu use. Ne	w trends ior
	transportation planning and modelling.		
17TZND	Technology of Railway Transport	Z,ZK	4
Track line capacity	assesment, model operational situation with a system running time between IPT-nodes, calculation of traction energy savings compared to the co	ared with infrastru	cture costs
for designing of fle	eting crossing station, solving of capacity problem and blocking time in relation to train protection system, robustness of timetable, sy	stem concept of t	freight train
	paths, guidelines for centralised operational traffic control and management.		
17XN1	Master Project 1	Z	2
	•		
17XN2	Master Project 2	Z	2
17XN3	Master Project 3	Z	1
17XN4	Master Project 4	Z	8
18GAZ	Geomechanics and Foundation Engineering	Z,ZK	3
	pertrographyand stratigraphy), mechanics of soils (classification of fundamental soils, mechanic properties of fundamental soils, peri		
(footings, footers, p	plates, depth of founding), determination of planar foundations bearing and deformation, depth foundations classification of depth foun	ndations alamants	s, examples
		idations elements	
	of their use, piles (classification, technology od performing).	nuations elements	
18TFAM			4
18TEAM	Theoretical and Applied Mechanics	Z,ZK	4
	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure.	Z,ZK ctures. The stress	
Fundamentals of	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of strue state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for	Z,ZK ctures. The stress price.	and strain
Fundamentals of 18TIK	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of strue state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures	Z,ZK ctures. The stress orce. Z,ZK	and strain
Fundamentals of 18TIK	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of strue state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for	Z,ZK ctures. The stress orce. Z,ZK	and strain
Fundamentals of 18TIK The course builds to	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of strue state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticit	and strain 4 ty. Emphasis
Fundamentals of 18TIK The course builds to	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticit	and strain 4 ty. Emphasis
Fundamentals of 18TIK The course builds use placed on plane	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures.	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticity with methods of methods of methods.	and strain 4 ty. Emphasis odeling the
Tundamentals of 18TIK The course builds us placed on plane 18XN1	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticivith methods of medical	and strain 4 ty. Emphasis odeling the
Fundamentals of 18TIK The course builds use placed on plane	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures.	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticity with methods of methods of methods.	and strain 4 ty. Emphasis odeling the
Tundamentals of 18TIK The course builds us placed on plane 18XN1	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticivith methods of medical	and strain 4 ty. Emphasis odeling the
Tundamentals of 18TIK The course builds us placed on plane 18XN1 18XN2 18XN3	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticity with methods of many	and strain 4 by Emphasis odeling the 2 2 1
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Fundamentals of 18TIK The course builds used is placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticit vith methods of models Z Z Z Z Z	4 ty. Emphasis odeling the 2 2 1 1 8 2 2
Fundamentals of 18TIK The course builds us placed on plane 18XN1 18XN2 18XN3 18XN4	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticit vith methods of model Z Z Z Z	4 ty. Emphasis odeling the 2 2 1 8
Tendamentals of 18TIK The course builds using placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of struct state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 1 Master Project 1 Master Project 2	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticir ith methods of methods of methods. Z Z Z Z Z Z	and strain 4 ty. Emphasis odeling the 2 2 1 8 2 2
Tendamentals of 18TIK The course builds us is placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2 20XN3	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 3 Master Project 3	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticivith methods of models Z Z Z Z Z Z Z	and strain 4 ty. Emphasis odeling the 2 2 1 8 2 2 1
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Tendamentals of 18TIK The course builds us is placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2 20XN3	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 3 Master Project 3	Z,ZK ctures. The stress orce. Z,ZK I theory of elasticivith methods of models Z Z Z Z Z Z Z	and strain 4 ty. Emphasis odeling the 2 2 1 8 2 2 1
Fundamentals of 18TIK The course builds us placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN1 20XN2 20XN3 20XN4 21XN1	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematical and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted with behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 2 Master Project 3 Master Project 3 Master Project 3 Master Project 3 Master Project 4 Master Project 4 Master Project 1 Master Project 3 Master Project 1 Master Project 1 Master Project 1	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticity the methods of methods of methods. Z Z Z Z Z Z Z Z Z Z	and strain 4 ty. Emphasis odeling the 2 2 1 8 2 1 8 8
Fundamentals of 18TIK The course builds us placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2 20XN3 20XN4 21XN1 21XN2	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structures atte around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 4 Master Project 4 Master Project 4 Master Project 1 Master Project 1 Master Project 3 Master Project 1 Master Project 1 Master Project 1 Master Project 2	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticit vith methods of more Z Z Z Z Z Z Z Z Z Z Z Z Z	and strain 4 by Emphasis odeling the 2 2 1 8 2 1 8 2 2 1 8 2 2 2 2 2 2 2 2
Fundamentals of 18TIK The course builds use placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2 20XN3 20XN4 21XN1 21XN2 21XN3	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structure state around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 4 Master Project 4 Master Project 5 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 4 Master Project 4 Master Project 5 Master Project 1 Master Project 2 Master Project 3	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticit vith methods of more Z Z Z Z Z Z Z Z Z Z Z Z Z	and strain 4 by Emphasis odeling the 2 2 1 8 2 1 8 2 2 1 1 8 2 1 1 8 1 1 1 1
Fundamentals of 18TIK The course builds us placed on plane 18XN1 18XN2 18XN3 18XN4 20XN1 20XN2 20XN3 20XN4 21XN1 21XN2	Theoretical and Applied Mechanics theory of plasticity. Plasticity conditions. Elastoplastic and plastic states of cross-sections and beams. Reliability and durability of structures atte around a notch. Stress intensity factor. Fracture toughness. Energy methods of linear fracture mechanics. Crack driving for Theory of Engineering Structures pon the knowledge gained in basic mechanics courses in bachelor study (especially Statics and Elasticity) in the field of mathematica and axisymmetric problems, as well as on the calculation of stress and strain in plates and shells. Students are further acquainted we behavior of subsoil used in the design of line structures. Master Project 1 Master Project 2 Master Project 3 Master Project 4 Master Project 1 Master Project 1 Master Project 2 Master Project 2 Master Project 3 Master Project 3 Master Project 4 Master Project 4 Master Project 4 Master Project 1 Master Project 1 Master Project 3 Master Project 1 Master Project 1 Master Project 1 Master Project 2	Z,ZK ctures. The stress proce. Z,ZK I theory of elasticit vith methods of more Z Z Z Z Z Z Z Z Z Z Z Z Z	and strain 4 by Emphasis odeling the 2 2 1 8 2 1 8 2 2 1 8 2 2 2 2 2 2 2 2
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22XN1	Master Project 1	Z	2
22XN2	Master Project 2	Z	2
22XN3	Master Project 3	Z	1
22XN4	Master Project 4	Z	8
23XN1	Master Project 1	Z	2
23XN2	Master Project 2	Z	2
23XN3	Master Project 3	Z	1
23XN4	Master Project 4	Z	8

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