

Study plan

Name of study plan: Master Part-Time LA from 2024/25

Faculty/Institute/Others:

Department:

Branch of study guaranteed by the department: Welcome page

Garantor of the study branch:

Program of study: Logistics and Transport Processes Control

Type of study: Follow-up master combined

Required credits: 117

Elective courses credits: 3

Sum of credits in the plan: 120

Note on the plan:

Name of the block: Compulsory courses

Minimal number of credits of the block: 103

The role of the block: Z

Code of the group: 1S-NK-LA-24/25

Name of the group: 1st Sem. Master Part-Time LA from 2024/25

Requirement credits in the group: In this group you have to gain 28 credits

Requirement courses in the group: In this group you have to complete 9 courses

Credits in the group: 28

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
11LIP2	Linear Programming 2 Pavla Pecherková, Ivan Nagy Pavla Pecherková Ivan Nagy (Gar.)	Z,ZK	3	2P+1C+10B	Z	z
11TER	Game Theory and Optimal Decision-Making Magdalena Hykšová Magdalena Hykšová Magdalena Hykšová (Gar.)	ZK	2	2P+0C+8B	Z	z
17LSC	Logistics in Smart Cities Tomáš Horák Tomáš Horák (Gar.)	Z,ZK	6	2P+2C+14B	Z	z
17TZNK	Technology of Railway Transport Michal Drábek, Rudolf Vávra, Vít Janoš Vít Janoš (Gar.)	Z,ZK	5	12B	Z	z
11TZOK	Inventory, Replacement and Scheduling Theory Dušan Teichmann Dušan Teichmann	Z,ZK	4	10B	Z	z
14GISS	Geographical Information Systems Vít Fábbera, František Kekula, Tomáš Janata, Zuzana Purkrábková Tomáš Janata Tomáš Janata (Gar.)	KZ	2	0P+2C+8B	Z	z
17MADS	Management of Transport Systems Roman Štěrba Roman Štěrba (Gar.)	KZ	2	2P+0C+8B	Z	z
17TSI	Technology of Road Transport Michal Drábek, Vít Janoš Michal Drábek (Gar.)	KZ	2	2P+0C+8B	Z	z
15J2A1	Language - English 1 Jitka Heřmanová, Peter Morpuss, Markéta Vojanová, Marie Michlová, Marek Tomeček, Markéta Musilová, Jan Feit, Eva Rezlerová, Lenka Monková, Lenka Monková (Gar.)	Z	2	0P+2C+10B	Z	z

Characteristics of the courses of this group of Study Plan: Code=1S-NK-LA-24/25 Name=1st Sem. Master Part-Time LA from 2024/25

11LIP2	Linear Programming 2	Z,ZK	3	Formulation of the task of integer programming, branch and bound method of numerical solution, problems about knapsack, travelling salesman, sets, location of stores and post boxes, tasks of scheduling, heuristics, metaheuristics - genetic algorithms, ant colony optimization.
11TER	Game Theory and Optimal Decision-Making	ZK	2	Decision-making theory, utility theory. Explicit form games, backward induction. Normal form games. Antagonistic conflict, matrix games. Repeated games, evolutionary game theory. Cooperative games without transferable payoffs. Cooperative games with transferable payoffs (imputation, core, Shapley value, nucleolus). Applications of game theory above all in economics and transportation.
17LSC	Logistics in Smart Cities	Z,ZK	6	Development of cities in time, city and region, mobility of city residents and movement of goods, sustainability as a concept, Smart Cities, city as a system and its components, quality of life, individual quality of life, city "smartness" assessment, legislation in Smart Cities, Smart Cities transformation, last mile logistics, e-commerce, new approaches in last mile logistics, last mile logisitcs in cities and in regions.

17TZNK	Technology of Railway Transport	Z,ZK	5
Track line capacity assesment, model operational situation with a system running time between IPT-nodes, calculation of traction energy savings compared with infrastructure costs for designing of fleeting crossing station, solving of capacity problem and blocking time in relation to train protection system, robustness of timetable, system concept of freight train paths, guidelines for centralised operational traffic control and management.			
11TZOK	Inventory, Replacement and Scheduling Theory	Z,ZK	4
Inventory theory - introduction, static models, deterministic dynamic models, stochastic dynamic models. Replacement theory - introduction, models for replacement of items that deteriorate with time, models for replacement of items that fail completely. Scheduling theory - introduction, single machine scheduling problems, parallel machine scheduling problems, flow shop scheduling problems and job shop scheduling problems.			
14GISS	Geographical Information Systems	KZ	2
Construction of saving format of space-oriented information land-survey and cartography minimum basic tasks of spatial operations principles of territorial identification			
17MADS	Management of Transport Systems	KZ	2
Functions, processes and systems of management in transport, organisational structures, strategy, social responsibility, soft skills.			
17TSI	Technology of Road Transport	KZ	2
Legislative, operational, technical, logistic and safety conditions of road transport, basic transport technologies, special transport, international agreements, requirements on the parameters and specialization of transport, handling and loading/unloading means, maintenance, service and repairs of road vehicles, safety of road transport and choice of optimal transport unit.			
15J2A1	Language - English 1	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.			

Code of the group: 2S-NK-LA-24/25

Name of the group: 2nd Sem. Master Part-Time LA from 2024/25

Requirement credits in the group: In this group you have to gain 25 credits

Requirement courses in the group: In this group you have to complete 8 courses

Credits in the group: 25

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
11THRO	Queuing Theory Šárka Voráčová Šárka Voráčová Šárka Voráčová (Gar.)	ZK	2	2P+0C+8B	L	Z
11KMDK	Quantitative Methods in Transport Denisa Mocková	Z,ZK	7	14B	L	Z
17MID	Managerial Information Systems in Transport Václav Baroch Václav Baroch (Gar.)	Z,ZK	3	2P+1C+10B	L	Z
17RKOP	Management of commercial projects in transport Petra Skolilová, Alexandra Dvořáčková Petra Skolilová Petra Skolilová (Gar.)	Z,ZK	3	2P+1C+10B	L	Z
14BIG	Big Data Jana Kaliková, Jan Krčál Jana Kaliková Jana Kaliková (Gar.)	KZ	2	0P+2C+8B	L	Z
14TEL	Telecommunications Tomáš Zelinka, Radek Holý, Zdeněk Lokaj, Martin Šrotýř Tomáš Zelinka Tomáš Zelinka (Gar.)	KZ	3	2P+1C+10B	L	Z
17DOCH	Travel Behavior Vít Janoš, Milan Kříž Vít Janoš (Gar.)	KZ	3	3P+0C+10B	L	Z
15JBA2	Language - English 2 Jitka Heřmanová, Peter Mopuss, Markéta Vojanová, Marie Michlová, Marek Tomeček, Markéta Musilová, Jan Feit, Eva Rezlerová, Lenka Monková, Lenka Monková (Gar.)	Z	2	0P+2C+10B	L	Z

Characteristics of the courses of this group of Study Plan: Code=2S-NK-LA-24/25 Name=2nd Sem. Master Part-Time LA from 2024/25

11THRO	Queuing Theory	ZK	2
Discrete event process, definition, random distribution, and probability. Basic processes, process of revitalisation. Markov process, Markov models, Kendall classification, model M/M/1, models M/M/n. Non-markovian models, model M/C/n, models G/G/n. Models with continuous flow. Service net, examples of Petri net. Computer simulation.			
11KMDK	Quantitative Methods in Transport	Z,ZK	7
The course focuses on the issue of the use of undirected graphs tree type, planar graphs and their coloring. Further distribution problems, facility location problems are formulated and solved such as models of integer linear programming. Besides the use of exact methods there are described simple and also more sophisticated heuristics (metaheuristics) methods.			
17MID	Managerial Information Systems in Transport	Z,ZK	3
IT and their use in building IS of modern transport company. New EU legislation on cyber security and data protection puts transport organizations in front of new challenges. The course focuses on the security of IS and possible sources of danger. The practical part deals with the process of building a new IS from the idea through the timetable and the financial budget, the basic documents for the possible assignment of the contract.			
17RKOP	Management of commercial projects in transport	Z,ZK	3
Business project (customer, activities, output - quality, time, money), project surroundings, location of the project (area analysis, traffic flows, authorization procedure), organizational structure of the project, sources of financing, customer-supplier relations, feasibility studies, sensitivity and multi-criteria analysis, financial and value analysis, management of project changes.			
14BIG	Big Data	KZ	2
Principle of MapReduce. Basic Principles of Big Data Management. Comparison and Classification of NoSQL Databases. Key Database Value Database. Column Databases. Document Databases. Graph Databases-Basic Principles. Graph Databases-Advanced Aspects. Indexing. Interpretation. Advanced Principles Big Data Management. NewSQL Database. Cloud computing. Data warehouses and Big Data. Cloud computing. Data warehouses and Big Data. Other Big Data issues.			
14TEL	Telecommunications	KZ	3
Status quo and new trends in telecommunications systems. Economical and legal aspects of telecommunications networks design and telecommunications services provisioning, identification and quantification of hierarchical telecommunications networks and telecommunication services performance based on adopted performance parameters, telecommunication services typically applied within transport and specifically logistic solutions.			

17DOCH	Travel Behavior	KZ	3
Investigation of causal effects in travel behavior research (quasi-experimental and experimental approaches). Data collection (theory of measurement; design of research instrument and data collection). Analysis and interpretation of data (advanced regression models; issues of analysis and interpretation of results: effect size, practical vs. statistical significance). Analysis and interpr. of data (surveys, choice exp., panel. data).			
15JBA2	Language - English 2	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.			

Code of the group: 3S-NK-LA-25/26

Name of the group: 3rd Sem. Master Part-Time LA from 2025/26

Requirement credits in the group: In this group you have to gain 22 credits

Requirement courses in the group: In this group you have to complete 6 courses

Credits in the group: 22

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
11STS	Stochastic Systems Pavla Pecherková, Šárka Voráčová, Šárka Tršťanová, Evženie Uglickich, Natálie Blahitka, Michal Matowicki Pavla Pecherková Šárka Voráčová (Gar.)	Z,ZK	4	2P+2C+14B	Z	z
17DOPM	Transportation Planning and Modeling Milan Kříž Milan Kříž (Gar.)	Z,ZK	6	2P+2C	Z	z
17PPC	Carriage Processes Roman Štěrba Roman Štěrba (Gar.)	ZK	3	2P+0C	Z	z
17RVIP	Public Project Management in Transport Alexandra Dvořáčková, Daniel Pilát Alexandra Dvořáčková (Gar.)	Z,ZK	5	2P+2C+14B	Z	z
17AMAK	Application of Marketing Tools in Transport Industry Petra Skolilová Petra Skolilová (Gar.)	KZ	2	10B	Z	z
15JBA3	Language - English 3 Jitka Heřmanová, Peter Morpuss, Markéta Vojanová, Marie Michlová, Marek Tomeček, Markéta Musilová, Jan Feit, Eva Rezlerová, Lenka Monková Lenka Monková (Gar.)	Z	2	0P+2C+10B	Z	z

Characteristics of the courses of this group of Study Plan: Code=3S-NK-LA-25/26 Name=3rd Sem. Master Part-Time LA from 2025/26

11STS	Stochastic Systems	Z,ZK	4
The subject deals with the problems of mathematical modelling of dynamical systems, estimation of these models and their utilization for prediction. The results are illustrated on practical transportation tasks. Mathematical theory roots from probability and mathematical statistics and they use the methods of the Bayesian probabilistic approach.			
17DOPM	Transportation Planning and Modeling	Z,ZK	6
Basic steps and tools used within four step model (trip generation, trip distribution, mode choice and trip distribution). Mobility and availability in urban areas, land use. New trends for transportation planning and modelling.			
17PPC	Carriage Processes	ZK	3
Domestic carriages, international carriages, nomenclature of goods, pricing, contracting, responsibility for damages.			
17RVIP	Public Project Management in Transport	Z,ZK	5
Basic concepts of project management in the public sector, used procedures and standards of project management, organizational structure in project management in the public sector, project and pre-project preparation in transport and transport infrastructure and their specifics, feasibility study and CBA, project evaluation.			
17AMAK	Application of Marketing Tools in Transport Industry	KZ	2
Strategic marketing plans. Implementation of marketing campaigns. Branding and brand promotion. Multimedia presentations. Direct marketing and related lead generation campaigns.			
15JBA3	Language - English 3	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement. Optional courses for certificates FCE, CAE.			

Code of the group: 4S-NK-LA-25/26

Name of the group: 4th Sem. Master Part-Time LA from 2025/26

Requirement credits in the group: In this group you have to gain 2 credits

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

Credits in the group: 2

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
15JBA4	Language - English 4 Jitka Heřmanová, Peter Morpuss, Markéta Vojanová, Marie Michlová, Marek Tomeček, Markéta Musilová, Jan Feit, Eva Rezlerová, Lenka Monková, Lenka Monková (Gar.)	ZK	2	0P+2C+10B	L	z

Characteristics of the courses of this group of Study Plan: Code=4S-NK-LA-25/26 Name=4th Sem. Master Part-Time LA from 2025/26

15JBA4	Language - English 4	ZK	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement. Optional courses for certificates FCE, CAE.			

Code of the group: XD-NK-LA-25/26

Name of the group: Thesis Master Part-Time LA from 2025/26

Requirement credits in the group: In this group you have to gain 18 credits

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

Credits in the group: 18

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
11XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
12XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
14XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
15XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
16XNDM	Master Thesis for study programme LA <i>Přemysl Toman</i>	Z	18	CP420C70B	L	Z
17XNDM	Master Thesis for study programme LA <i>Tomáš Horák, Michal Drábek, Rudolf Vávra, Vít Janoš, Dušan Teichmann, Roman Štěrba, Václav Baroch, Petra Skolilová, Alexandra Dvořáčková, Václav Baroch (Gar.)</i>	Z	18	CP420C70B	L	Z
18XNDM	Master Thesis for study programme LA <i>Nela Krčmářová</i>	Z	18	CP420C70B	L	Z
20XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
21XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z
22XNDM	Master Thesis for study programme LA	Z	18	CP420C70B	L	Z

Characteristics of the courses of this group of Study Plan: Code=XD-NK-LA-25/26 Name=Thesis Master Part-Time LA from 2025/26

11XNDM	Master Thesis for study programme LA	Z	18
12XNDM	Master Thesis for study programme LA	Z	18
14XNDM	Master Thesis for study programme LA	Z	18
15XNDM	Master Thesis for study programme LA	Z	18
16XNDM	Master Thesis for study programme LA	Z	18
17XNDM	Master Thesis for study programme LA	Z	18
18XNDM	Master Thesis for study programme LA	Z	18
20XNDM	Master Thesis for study programme LA	Z	18
21XNDM	Master Thesis for study programme LA	Z	18
22XNDM	Master Thesis for study programme LA	Z	18

Code of the group: XS-NK-LA-25/26

Name of the group: Thesis Seminary Master Part-Time LA from 2025/26

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 1 course

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
11XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
12XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
14XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
15XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
22XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
17XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
18XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
20XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
21XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
16XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z

Characteristics of the courses of this group of Study Plan: Code=XS-NK-LA-25/26 Name=Thesis Seminary Master Part-Time LA from 2025/26

11XN4K	Seminar for Diploma Thesis	Z	8
12XN4K	Seminar for Diploma Thesis	Z	8
14XN4K	Seminar for Diploma Thesis	Z	8
15XN4K	Seminar for Diploma Thesis	Z	8
22XN4K	Seminar for Diploma Thesis	Z	8
17XN4K	Seminar for Diploma Thesis	Z	8
18XN4K	Seminar for Diploma Thesis	Z	8
20XN4K	Seminar for Diploma Thesis	Z	8
21XN4K	Seminar for Diploma Thesis	Z	8
16XN4K	Seminar for Diploma Thesis	Z	8

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 6

The role of the block: PV

Code of the group: Y2-NK-LA-24/25

Name of the group: Comp. Sel. Courses Master Part-Time LA from 2024/25

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 3 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
17W2AM	Application of Marketing Tools in Transportation <i>Alexandra Dvořáčková</i>	KZ	3	8B	L	PV
21W2CR	CRM	KZ	3	8B	L	PV
17W2FM	Financing in Urban Mass Transportation	KZ	3	8B	Z	PV
21W2FM	Aviation Company Financial Management	KZ	3	8B	Z	PV
15W2HS	Road Transport History <i>Zuzana Čarská Zuzana Čarská (Gar.)</i>	KZ	3	8B	L	PV
14W2KI	Capital Investment in Transportation and Telecommunications	KZ	3	8B	L	PV
15W2MS	Sociology for Managers <i>Eva Rezlířová, Martina Šmidochová Martina Šmidochová (Gar.)</i>	KZ	3	8B	Z	PV
21W2MK	Marketing of Air Transport	KZ	3	8B	L	PV
15W2OZ	Health Protection in Transportation and EU <i>Petr Musil Petr Musil (Gar.)</i>	KZ	3	8B	Z	PV
15W2PT	Food in Transportation <i>Petr Musil Petr Musil (Gar.)</i>	KZ	3	8B	L	PV
21W2PP	Law and Operation in Air Transport	KZ	3	8B	L	PV
15W2SR	Stylistics and Rhetorics	KZ	3	8B	Z	PV
15W2TS	Technician and Contemporary Society	KZ	3	8B	L	PV

Characteristics of the courses of this group of Study Plan: Code=Y2-NK-LA-24/25 Name=Comp. Sel. Courses Master Part-Time LA from 2024/25

17W2AM	Application of Marketing Tools in Transportation Application of marketing principles in transport issues, marketing tools suitable for transport, case studies of the use of marketing in the sphere of public passenger transport.	KZ	3
21W2CR	CRM Introduction to CRM. Analysis of air accidents. Human factor. Error. Historical development of CRM. Health and fitness. Stress and its effect on the human body. Fatigue Sleep & Vigilance. Information Processing. Situational Awareness. Workload Management. Decision Making. Communication. Leadership & Team Behaviour. Automation.	KZ	3
17W2FM	Financing in Urban Mass Transportation UMT history and development in Prague and other cities in the world. Building and operation of public tram, bus, and trolleybus networks. Underground building and operation. Other UMT types. UMT development in small towns. Particularities of investment and operation financing of individual UMT types. Historic and present models of UMT financing. Transport inspection and blind passengers. Tourism & UMT. UMT typology & choice of optimum financing.	KZ	3
21W2FM	Aviation Company Financial Management Theories of corporate finance - financial statements, budget, forecast. Financial policy of the company. Financial resources - long-term financial resources, depreciation, retained earnings, shares, bonds, loans, leasing, capital. Financial and economic analysis of the company - structure and content.	KZ	3
15W2HS	Road Transport History Roads and road traffic in the Ancient Age, corridors of main medieval pathways. Development of road traffic in the modern period, acceleration of road transport development during 1st part of 20th century. Development of road layout, geometric and construction layers. Beginning of modern road civil engineering. Development of road travelling in modern period. History of road intercections, bridges and traffic control, development of road signs.	KZ	3

14W2KI	Capital Investment in Transportation and Telecommunications Financial market, investment decision making - long term goals and investment strategies, long term financing	KZ	3
15W2MS	Sociology for Managers Sociological approach to a corporation. Corporation and its organization. Corporation and its running - human role and communication. Corporation, its culture and social system. Human's work position in free market economy. Corporate directorship, work groups, adaptation, strife, different roles and positions in corporation.	KZ	3
21W2MK	Marketing of Air Transport Definition, purpose, evolution, stages and types of marketing. Marketing in air transportation. Marketing research. Market segmentation. Airlines marketing strategies. Airline Products. Yield management and revenues. Air transport market sales.	KZ	3
15W2OZ	Health Protection in Transportation and EU Health protection in transportation in CR in the past and present. Conditions before 1989 and after, current legislature, future prospects. Harmonisation of legislation with other EU members. Fundamental principles of health protection and support in selected EU countries.	KZ	3
15W2PT	Food in Transportation The nutrition policy. Interaction transportation and foodstuffs. The health risks. Hygienic safeguard. The practical examples from the Czech Republic and from the world. The issues of dining cars, work trains and other railroad equipment. Legislation.	KZ	3
21W2PP	Law and Operation in Air Transport Development of aviation law. International conventions on civil aviation. International organisations and including of the Czech Republic in these organisations. EU legislation and civil aviation. Execution of state administration and state supervision in matters of civil aviation, in accordance with Act No. 49/1997 Col. Facilitation. Responsibilities of air carriers for passengers, luggage and cargo. The safe transport of dangerous goods.	KZ	3
15W2SR	Stylistics and Rhetorics Basic skills of oral and written expression as a means of human communication. Basic information about speech, articulation, oral and written language. Teaching to speak well-vocal organs, voice training. Language semantics, language syntactic and the pragmatic aspect. Creative thought and its oral and written expression. Practice - cultivating the skills of speech.	KZ	3
15W2TS	Technician and Contemporary Society Why to take off a hat in a room and open a door for a lady, are there simple solutions, science vs belief, do we need to know or is it enough to turn on a PC, it must be true - it's on the Internet and in newspapers, what are the sights for, interest in public affairs - a hangover from the past?	KZ	3

Name of the block: Jazyky

Minimal number of credits of the block: 8

The role of the block: J

Code of the group: JZ-NP-LA-20/21

Name of the group: Language Courses Master Full-Time LA from 2020/21

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:

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
15J2F1	Language - French 1 Irena Veselková	Z	2	OP+2C+10B	Z	J
15J2I1	Language - Italian 1 Irena Veselková	Z	2	OP+2C+10B	Z	J
15J2N1	Language - German 1 Eva Rezlerová, Martina Navrátilová, Jana Štikarová	Z	2	OP+2C+10B	Z	J
15J2R1	Language - Russian 1 Marie Michlová	Z	2	OP+2C+10B	Z	J
15J2S1	Language - Spanish 1 Nina Hricsina Puškinová, Zuzana Krinková (Gar.)	Z	2	OP+2C+10B	Z	J
15JBF2	Language - French 2 Irena Veselková	Z	2	OP+2C+10B	L	J
15JBI2	Language - Italian 2	Z	2	OP+2C+10B	L	J
15JBN2	Language - German 2 Eva Rezlerová, Martina Navrátilová, Jana Štikarová	Z	2	OP+2C+10B	L	J
15JBR2	Language - Russian 2 Marie Michlová	Z	2	OP+2C+10B	L	J
15JBS2	Language - Spanish 2 Nina Hricsina Puškinová, Zuzana Krinková, Zuzana Krinková (Gar.)	Z	2	OP+2C+10B	L	J
15JBF3	Language - French 3 Irena Veselková	Z	2	OP+2C+10B	Z	J
15JBI3	Language - Italian 3 Irena Veselková	Z	2	OP+2C+10B	Z	J
15JBN3	Language - German 3 Eva Rezlerová, Martina Navrátilová, Jana Štikarová	Z	2	OP+2C+10B	Z	J
15JBR3	Language - Russian 3 Marie Michlová	Z	2	OP+2C+10B	Z	J
15JBS3	Language - Spanish 3 Zuzana Krinková, Zuzana Krinková (Gar.)	Z	2	OP+2C+10B	Z	J
15JBF4	Language - French 4 Irena Veselková	ZK	2	OP+2C+10B	L	J

15JBI4	Language - Italian 4	ZK	2	CP+2C+10B	L	J
15JBN4	Language - German 4 <i>Eva Rezlerová, Martina Navrátilová, Jana Štikarová</i>	ZK	2	CP+2C+10B	L	J
15JBR4	Language - Russian 4 <i>Marie Michlová</i>	ZK	2	CP+2C+10B	L	J
15JBS4	Language - Spanish 4 <i>Eva Rezlerová, Nina Hricsina Puškinová, Zuzana Krinková Zuzana Krinková (Gar.)</i>	ZK	2	CP+2C+10B	L	J

Characteristics of the courses of this group of Study Plan: Code=JZ-NP-LA-20/21 Name=Language Courses Master Full-Time LA from 2020/21

15J2F1	Language - French 1 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15J2I1	Language - Italian 1 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15J2N1	Language - German 1 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15J2R1	Language - Russian 1 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15J2S1	Language - Spanish 1 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBF2	Language - French 2 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBI2	Language - Italian 2 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBN2	Language - German 2 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBR2	Language - Russian 2 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBS2	Language - Spanish 2 Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.	Z	2
15JBF3	Language - French 3 Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.	Z	2
15JBI3	Language - Italian 3 Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.	Z	2
15JBN3	Language - German 3 Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.	Z	2
15JBR3	Language - Russian 3 Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.	Z	2
15JBS3	Language - Spanish 3 Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.	Z	2

15JBF4	Language - French 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBI4	Language - Italian 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBN4	Language - German 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBR4	Language - Russian 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBS4	Language - Spanish 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			

List of courses of this pass:

Code	Name of the course	Completion	Credits
11KMDK	Quantitative Methods in Transport	Z,ZK	7
The course focuses on the issue of the use of undirected graphs tree type, planar graphs and their coloring. Further distribution problems, facility location problems are formulated and solved such as models of integer linear programming. Besides the use of exact methods there are described simple and also more sophisticated heuristics (metaheuristics) methods.			
11LIP2	Linear Programming 2	Z,ZK	3
Formulation of the task of integer programming, branch and bound method of numerical solution, problems about knapsack, travelling salesman, sets, location of stores and post boxes, tasks of scheduling, heuristics, metaheuristics - genetic algorithms, ant colony optimization.			
11STS	Stochastic Systems	Z,ZK	4
The subject deals with the problems of mathematical modelling of dynamical systems, estimation of these models and their utilization for prediction. The results are illustrated on practical transportation tasks. Mathematical theory roots from probability and mathematical statistics and they use the methods of the Bayesian probabilistic approach.			
11TER	Game Theory and Optimal Decision-Making	ZK	2
Decision-making theory, utility theory. Explicit form games, backward induction. Normal form games. Antagonistic conflict, matrix games. Repeated games, evolutionary game theory. Cooperative games without transferable payoffs. Cooperative games with transferable payoffs (imputation, core, Shapley value, nucleolus). Applications of game theory above all in economics and transportation.			
11THRO	Queuing Theory	ZK	2
Discrete event process, definition, random distribution, and probability. Basic processes, process of revitalisation. Markov process, Markov models, Kendall classification, model M/M/1, models M/M/n. Non-markovian models, model M/C/n, models G/G/n. Models with continuous flow. Service net, examples of Petri net. Computer simulation.			
11TZOK	Inventory, Replacement and Scheduling Theory	Z,ZK	4
Inventory theory - introduction, static models, deterministic dynamic models, stochastic dynamic models. Replacement theory - introduction, models for replacement of items that deteriorate with time, models for replacement of items that fail completely. Scheduling theory - introduction, single machine scheduling problems, parallel machine scheduling problems, flow shop scheduling problems and job shop scheduling problems.			
11XN4K	Seminar for Diploma Thesis	Z	8
11XNDM	Master Thesis for study programme LA	Z	18
12XN4K	Seminar for Diploma Thesis	Z	8
12XNDM	Master Thesis for study programme LA	Z	18
14BIG	Big Data	KZ	2
Principle of MapReduce. Basic Principles of Big Data Management. Comparison and Classification of NoSQL Databases. Key Database Value Database. Column Databases. Document Databases. Graph Databases-Basic Principles. Graph Databases-Advanced Aspects. Indexing. Interpretation. Advanced Principles Big Data Management. NewSQL Database. Cloud computing. Data warehouses and Big Data. Cloud computing. Data warehouses and Big Data. Other Big Data issues.			
14GISS	Geographical Information Systems	KZ	2
Construction of saving format of space-oriented information land-survey and cartography minimum basic tasks of spatial operations principles of territorial identification			
14TEL	Telecommunications	KZ	3
Status quo and new trends in telecommunications systems. Economical and legal aspects of telecommunications networks design and telecommunications services provisioning, identification and quantification of hierarchical telecommunications networks and telecommunication services performance based on adopted performance parameters, telecommunication services typically applied within transport and specifically logistic solutions.			
14W2KI	Capital Investment in Transportation and Telecommunications	KZ	3
Financial market, investment decision making - long term goals and investment strategies, long term financing			
14XN4K	Seminar for Diploma Thesis	Z	8
14XNDM	Master Thesis for study programme LA	Z	18
15J2A1	Language - English 1	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.			

15J2F1	Language - French 1	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15J2I1	Language - Italian 1	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15J2N1	Language - German 1	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15J2R1	Language - Russian 1	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15J2S1	Language - Spanish 1	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBA2	Language - English 2	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.			
15JBA3	Language - English 3	Z	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement. Optional courses for certificates FCE, CAE.			
15JBA4	Language - English 4	ZK	2
Presentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement. Optional courses for certificates FCE, CAE.			
15JBF2	Language - French 2	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBF3	Language - French 3	Z	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBF4	Language - French 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBI2	Language - Italian 2	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBI3	Language - Italian 3	Z	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBI4	Language - Italian 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBN2	Language - German 2	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBN3	Language - German 3	Z	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBN4	Language - German 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBR2	Language - Russian 2	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBR3	Language - Russian 3	Z	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			

15JBR4	Language - Russian 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBS2	Language - Spanish 2	Z	2
Grammatical Structures and Style. Selection of conversation topics relating to transportation sciences. Developing perceptive and communicative skills, feedback skills, summarising technical text content, structuring presentations and meeting minutes, elementary rhetorics of foreign language and practical application, formal and technical registers and their use, language of management.			
15JBS3	Language - Spanish 3	Z	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15JBS4	Language - Spanish 4	ZK	2
Grammar and stylistics. Selection of conversation and professional topics based on the language level and study focus at the Faculty. Improvement of language structure knowledge and perceptive and communicative skills, vocabulary development. Basic stylistic forms. Presentation of own knowledge in oral and written form. Work with (professional) text and its features. Practice of oral and written presentation.			
15W2HS	Road Transport History	KZ	3
Roads and road traffic in the Ancient Age, corridors of main medieval pathways. Development of road traffic in the modern period, acceleration of road transport development during 1st part of 20th century. Development of road layout, geometric and construction layers. Beginning of modern road civil engineering. Development of road travelling in modern period. History of road intercections, bridges and traffic control, development of road signs.			
15W2MS	Sociology for Managers	KZ	3
Sociological approach to a corporation. Corporation and its organization. Corporation and its running - human role and communication. Corporation, its culture and social system. Human's work position in free market economy. Corporate directorship, work groups, adaptation, strife, different roles and positions in corporation.			
15W2OZ	Health Protection in Transportation and EU	KZ	3
Health protection in transportation in CR in the past and present. Conditions before 1989 and after, current legislature, future prospects. Harmonisation of legislation with other EU members. Fundamental principles of health protection and support in selected EU countries.			
15W2PT	Food in Transportation	KZ	3
The nutrition policy. Interaction transportation and foodstuffs. The health risks. Hygienic safeguard. The practical examples from the Czech Republic and from the world. The issues of dining cars, work trains and other railroad equipment. Legislation.			
15W2SR	Stylistics and Rhetorics	KZ	3
Basic skills of oral and written expression as a means of human communication. Basic information about speech, articulation, oral and written language. Teaching to speak well-vocal organs, voice training. Language semantics, language syntactic and the pragmatic aspect. Creative thought and its oral and written expression. Practice - cultivating the skills of speech.			
15W2TS	Technician and Contemporary Society	KZ	3
Why to take off a hat in a room and open a door for a lady, are there simple solutions, science vs belief, do we need to know or is it enough to turn on a PC, it must be true - it's on the Internet and in newspapers, what are the sights for, interest in public affairs - a hangover from the past?			
15XN4K	Seminar for Diploma Thesis	Z	8
15XNDM	Master Thesis for study programme LA	Z	18
16XN4K	Seminar for Diploma Thesis	Z	8
16XNDM	Master Thesis for study programme LA	Z	18
17AMAK	Application of Marketing Tools in Transport Industry	KZ	2
Strategic marketing plans. Implementation of marketing campaigns. Branding and brand promotion. Multimedia presentations. Direct marketing and related lead generation campaigns.			
17DOCH	Travel Behavior	KZ	3
Investigation of causal effects in travel behavior research (quasi-experimental and experimental approaches). Data collection (theory of measurement; design of research instrument and data collection). Analysis and interpretation of data (advanced regression models; issues of analysis and interpretation of results: effect size, practical vs. statistical significance). Analysis and interpr. of data (surveys, choice exp., panel. data).			
17DOPM	Transportation Planning and Modeling	Z,ZK	6
Basic steps and tools used within four step model (trip generation, trip distribution, mode choice and trip distribution). Mobility and availability in urban areas, land use. New trends for transportation planning and modelling.			
17LSC	Logistics in Smart Cities	Z,ZK	6
Development of cities in time, city and region, mobility of city residents and movement of goods, sustainability as a concept, Smart Cities, city as a system and its components, quality of life, individual quality of life, city "smartness" assessment, legislation in Smart Cities, Smart Cities transformation, last mile logistics, e-commerce, new approaches in last mile logistics, last mile logisitcs in cities and in regions.			
17MADS	Management of Transport Systems	KZ	2
Functions, processes and systems of management in transport, organisational structures, strategy, social responsibility, soft skills.			
17MID	Managerial Information Systems in Transport	Z,ZK	3
IT and their use in building IS of modern transport company. New EU legislation on cyber security and data protection puts transport organizations in front of new challenges. The course focuses on the security of IS and possible sources of danger. The practical part deals with the process of building a new IS from the idea through the timetable and the financial budget, the basic documents for the possible assignment of the contract.			
17PPC	Carriage Processes	ZK	3
Domestic carriages, international carriages, nomenclature of goods, pricing, contracting, responsibility for damages.			
17RKOP	Management of commercial projects in transport	Z,ZK	3
Business project (customer, activities, output - quality, time, money), project surroundings, location of the project (area analysis, traffic flows, authorization procedure), organizational structure of the project, sources of financing, customer-supplier relations, feasibility studies, sensitivity and multi-criteria analysis, financial and value analysis, management of project changes.			
17RVIP	Public Project Management in Transport	Z,ZK	5
Basic concepts of project management in the public sector, used procedures and standards of project management, organizational structure in project management in the public sector, project and pre-project preparation in transport and transport infrastructure and their specifics, feasibility study and CBA, project evaluation.			
17TSI	Technology of Road Transport	KZ	2
Legislative, operational, technical, logistic and safety conditions of road transport, basic transport technologies, special transport, international agreements, requirements on the parameters and specialization of transport, handling and loading/unloading means, maintenance, service and repairs of road vehicles, safety of road transport and choice of optimal transport unit.			

17TZNK	Technology of Railway Transport	Z,ZK	5
Track line capacity assesment, model operational situation with a system running time between IPT-nodes, calculation of traction energy savings compared with infrastructure costs for designing of fleeting crossing station, solving of capacity problem and blocking time in relation to train protection system, robustness of timetable, system concept of freight train paths, guidelines for centralised operational traffic control and management.			
17W2AM	Application of Marketing Tools in Transportation	KZ	3
Application of marketing principles in transport issues, marketing tools suitable for transport, case studies of the use of marketing in the sphere of public passenger transport.			
17W2FM	Financing in Urban Mass Transportation	KZ	3
UMT history and development in Prague and other cities in the world. Building and operation of public tram, bus, and trolleybus networks. Underground building and operation. Other UMT types. UMT development in small towns. Particularities of investment and operation financing of individual UMT types. Historic and present models of UMT financing. Transport inspection and blind passengers. Tourism & UMT. UMT typology & choice of optimum financing.			
17XN4K	Seminar for Diploma Thesis	Z	8
17XNDM	Master Thesis for study programme LA	Z	18
18XN4K	Seminar for Diploma Thesis	Z	8
18XNDM	Master Thesis for study programme LA	Z	18
20XN4K	Seminar for Diploma Thesis	Z	8
20XNDM	Master Thesis for study programme LA	Z	18
21W2CR	CRM	KZ	3
Introduction to CRM. Analysis of air accidents. Human factor. Error. Historical development of CRM. Health and fitness. Stress and its effect on the human body. Fatigue Sleep & Vigilance. Information Processing. Situational Awareness. Workload Management. Decision Making. Communication. Leadership & Team Behaviour. Automation.			
21W2FM	Aviation Company Financial Management	KZ	3
Theories of corporate finance - financial statements, budget, forecast. Financial policy of the company. Financial resources - long-term financial resources, depreciation, retained earnings, shares, bonds, loans, leasing, capital. Financial and economic analysis of the company - structure and content.			
21W2MK	Marketing of Air Transport	KZ	3
Definition, purpose, evolution, stages and types of marketing. Marketing in air transportation. Marketing research. Market segmentation. Airlines marketing strategies. Airline Products. Yield management and revenues. Air transport market sales.			
21W2PP	Law and Operation in Air Transport	KZ	3
Development of aviation law. International conventions on civil aviation. International organisations and including of the Czech Republic in these organisations. EU legislation and civil aviation. Execution of state administration and state supervision in matters of civil aviation, in accordance with Act No. 49/1997 Col. Facilitation. Responsibilities of air carriers for passengers, luggage and cargo. The safe transport of dangerous goods.			
21XN4K	Seminar for Diploma Thesis	Z	8
21XNDM	Master Thesis for study programme LA	Z	18
22XN4K	Seminar for Diploma Thesis	Z	8
22XNDM	Master Thesis for study programme LA	Z	18

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