

# Recommended pass through the study plan

Name of the pass: Master Part-Time LA from 2024/25

Faculty/Institute/Others:

Department:

Pass through the study plan: Master Part-Time LA from 2024/25

Branch of study guaranteed by the department: Welcome page

Guarantor of the study branch:

Program of study: Logistics and Transport Processes Control

Type of study: Follow-up master combined

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<br>(in case of groups of courses the list of codes of their members)<br>Tutors, <b>authors</b> and guarantors (gar.)  | Completion                           | Credits        | Scope     | Semester | Role |
|----------------|---|--------------------------------------|----------------|-----------|----------|------|
| 14GISS         | <b>Geographical Information Systems</b><br>Vít Fábeka, František Kekula, Tomáš Janata, Zuzana Purkrábková <b>Tomáš Janata</b> Tomáš Janata (Gar.)                       | KZ                                   | 2              | 0P+2C+8B  | Z        | z    |
| 15J2A1         | <b>Language - English 1</b><br>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    |
| 11LIP2         | <b>Linear Programming 2</b><br>Pavla Pecherková, Ivan Nagy, Karel Je men <b>Pavla Pecherková</b> Ivan Nagy (Gar.)   | Z,ZK                                 | 3              | 2P+1C+10B | Z        | z    |
| 17LSC          | <b>Logistics in Smart Cities</b><br>Tomáš Horák Tomáš Horák (Gar.)  | Z,ZK                                 | 6              | 2P+2C+14B | Z        | z    |
| 17MADS         | <b>Management of Transport Systems</b><br>Roman Št rba Roman Št rba (Gar.)  | KZ                                   | 2              | 2P+0C+8B  | Z        | z    |
| 17TSI          | <b>Technology of Road Transport</b><br>Rudolf Vávra, Daniel Drnec, Vít Janoš, Michal Drábek Michal Drábek (Gar.)  | KZ                                   | 2              | 2P+0C+8B  | Z        | z    |
| 17TZNK         | <b>Technology of Railway Transport</b><br>Rudolf Vávra, Vít Janoš, Michal Drábek Vít Janoš (Gar.)   | Z,ZK                                 | 5              | 12B       | Z        | z    |
| 11TER          | <b>Game Theory and Optimal Decision-Making</b><br>Magdalena Hykšová <b>Magdalena Hykšová</b> Magdalena Hykšová (Gar.)   | ZK                                   | 2              | 2P+0C+8B  | Z        | z    |
| 11TZOK         | <b>Inventory, Replacement and Scheduling Theory</b><br>Dušan Teichmann <b>Dušan Teichmann</b>   | Z,ZK                                 | 4              | 10B       | Z        | z    |
| JZ-NP-LA-20/21 | <b>Jazyky Mgr. prezen ní LA od 2020/21</b><br>15J2F1,15J2I1,..... (see the list of groups below)  | Min. cours.<br>4<br>Max. cours.<br>4 | Min/Max<br>8/8 |           |          | J    |

Number of semester: 2

| Code   | Name of the course / Name of the group of courses<br>(in case of groups of courses the list of codes of their members)<br>Tutors, <b>authors</b> and guarantors (gar.)         | Completion | Credits | Scope     | Semester | Role |
|--------|--|------------|---------|-----------|----------|------|
| 14BIG  | <b>Big Data</b><br>Jana Kaliková, Jan Kr ál <b>Jana Kaliková</b> Jana Kaliková (Gar.)  | KZ         | 2       | 0P+2C+8B  | L        | z    |
| 17DOCH | <b>Travel Behavior</b><br>Vít Janoš, Milan K íž Vít Janoš (Gar.)   | KZ         | 3       | 3P+0C+10B | L        | z    |
| 15JBA2 | <b>Language - English 2</b><br>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    |
| 11KMDK | <b>Quantitative Methods in Transport</b><br>Dušan Teichmann, Denisa Mocková <b>Denisa Mocková</b> Denisa Mocková (Gar.)  | Z,ZK       | 7       | 14B       | L        | z    |
| 17MID  | <b>Managerial Information Systems in Transport</b><br>Václav Baroch Václav Baroch (Gar.)   | Z,ZK       | 3       | 2P+1C+10B | L        | z    |

|                |  |                                      |                |           |   |    |
|----------------|--|--------------------------------------|----------------|-----------|---|----|
| 17RKOP         | <b>Management of commercial projects in transport</b><br><i>Petra Skolilová, Alexandra Dvořáková <b>Petra Skolilová</b> Petra Skolilová (Gar.)</i> | Z,ZK                                 | 3              | 2P+1C+10B | L | Z  |
| 14TEL          | <b>Telecommunications</b><br><i>Tomáš Zelinka, Radek Holý, Zdeněk Lokaj, Martin Šrotý <b>Tomáš Zelinka</b> Tomáš Zelinka (Gar.)</i>                | KZ                                   | 3              | 2P+1C+10B | L | Z  |
| 11THRO         | <b>Queuing Theory</b><br><i>Šárka Voráčová <b>Šárka Voráčová</b> Šárka Voráčová (Gar.)</i>   | ZK                                   | 2              | 2P+0C+8B  | L | Z  |
| JZ-NP-LA-20/21 | <b>Jazyky Mgr. prezenční LA od 2020/21</b><br><i>15J2F1, 15J2I1,..... (see the list of groups below)</i>   | Min. cours.<br>4<br>Max. cours.<br>4 | Min/Max<br>8/8 |           |   | J  |
| Y2-NK-LA-24/25 | <b>PVP-B Mgr. kombinovaný LA od 2024/25</b><br><i>17W2AM, 21W2CR,..... (see the list of groups below)</i>  | Min. cours.<br>3<br>Max. cours.<br>3 | Min/Max<br>6/6 |           |   | PV |

Number of semester: 3

| Code           | Name of the course / Name of the group of courses<br>(in case of groups of courses the list of codes of their members)<br><i>Tutors, <b>authors</b> and guarantors (gar.)</i>         | Completion                           | Credits        | Scope     | Semester | Role |
|----------------|---|--------------------------------------|----------------|-----------|----------|------|
| 17AMAK         | <b>Application of Marketing Tools in Transport Industry</b>   | KZ                                   | 2              | 10B       | Z        | Z    |
| 17DOPM         | <b>Transportation Planning and Modeling</b><br><i>Milan Kříž</i>  | Z,ZK                                 | 6              | 2P+2C     | Z        | Z    |
| 15JBA3         | <b>Language - English 3</b><br><i>Jitka Heřmanová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová, .....</i> | Z                                    | 2              | 0P+2C+10B | Z        | Z    |
| 17PPC          | <b>Carriage Processes</b><br><i>Roman Štrba Roman Štrba (Gar.)</i>  | ZK                                   | 3              | 2P+0C     | Z        | Z    |
| 17RVIP         | <b>Public Project Management in Transport</b><br><i>Alexandra Dvořáková, Olga Mertlová, Daniel Pilát Olga Mertlová (Gar.)</i>   | Z,ZK                                 | 5              | 2P+2C+14B | Z        | Z    |
| 11STS          | <b>Stochastic Systems</b><br><i>Pavla Pecherková, Šárka Voráčová, Evžen Uglickich, Natálie Blahitka, Michal Matowicki <b>Pavla Pecherková</b> Šárka Voráčová (Gar.)</i>               | Z,ZK                                 | 4              | 2P+2C+14B | Z        | Z    |
| JZ-NP-LA-20/21 | <b>Jazyky Mgr. prezenční LA od 2020/21</b><br><i>15J2F1, 15J2I1,..... (see the list of groups below)</i>  | Min. cours.<br>4<br>Max. cours.<br>4 | Min/Max<br>8/8 |           |          | J    |
| Y2-NK-LA-24/25 | <b>PVP-B Mgr. kombinovaný LA od 2024/25</b><br><i>17W2AM, 21W2CR,..... (see the list of groups below)</i>   | Min. cours.<br>3<br>Max. cours.<br>3 | Min/Max<br>6/6 |           |          | PV   |

Number of semester: 4

| Code           | Name of the course / Name of the group of courses<br>(in case of groups of courses the list of codes of their members)<br><i>Tutors, <b>authors</b> and guarantors (gar.)</i>         | Completion                           | Credits          | Scope     | Semester | Role |
|----------------|---|--------------------------------------|------------------|-----------|----------|------|
| 15JBA4         | <b>Language - English 4</b><br><i>Jitka Heřmanová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová, .....</i> | ZK                                   | 2                | 0P+2C+10B | L        | Z    |
| XD-NK-LA-25/26 | <b>DP Mgr. kombinovaná LA od 2025/26</b><br><i>11XNDM, 12XNDM,..... (see the list of groups below)</i>  | Min. cours.<br>1<br>Max. cours.<br>1 | Min/Max<br>18/18 |           |          | Z    |
| XS-NK-LA-25/26 | <b>Seminář k DP Mgr. kombinovaná LA od 2025/26</b><br><i>11XN4K, 12XN4K,..... (see the list of groups below)</i>  | Min. cours.<br>1<br>Max. cours.<br>1 | Min/Max<br>8/8   |           |          | Z    |
| JZ-NP-LA-20/21 | <b>Jazyky Mgr. prezenční LA od 2020/21</b><br><i>15J2F1, 15J2I1,..... (see the list of groups below)</i>  | Min. cours.<br>4                     | Min/Max<br>8/8   |           |          | J    |

|  |  |             |  |  |  |  |
|--|--|-------------|--|--|--|--|
|  |  | Max. cours. |  |  |  |  |
|  |  | 4           |  |  |  |  |

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

| Kód            | Name of the group of courses and codes of members of this group (for specification see here or below the list of courses) |        |                                      | Completion                           | Credits                              | Scope | Semester | Role |
|----------------|---|--------|--------------------------------------|--------------------------------------|--------------------------------------|-------|----------|------|
| JZ-NP-LA-20/21 | Jazyky Mgr. prezen ní LA od 2020/21   |        |                                      | Min. cours.<br>4<br>Max. cours.<br>4 | Min/Max<br>8/8                       |       |          | J    |
| 15J2F1         | Language - French 1   | 15J2I1 | Language - Italian 1                 | 15J2N1                               | Language - German 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 - Italian 3                 |       |          |      |
| 15JBN3         | Language - German 3   | 15JBR3 | Language - Russian 3                 | 15JBS3                               | Language - Spanish 3                 |       |          |      |
| 15JBF4         | Language - French 4   | 15JBI4 | Language - Italian 4                 | 15JBN4                               | Language - German 4                  |       |          |      |
| 15JBR4         | Language - Russian 4  | 15JBS4 | Language - Spanish 4                 |                                      |                                      |       |          |      |
| XD-NK-LA-25/26 | DP Mgr. kombinovaná LA od 2025/26   |        |                                      | Min. cours.<br>1<br>Max. cours.<br>1 | Min/Max<br>18/18                     |       |          | Z    |
| 11XNDM         | Master Thesis for study programm ...  | 12XNDM | Master Thesis for study programm ... | 14XNDM                               | Master Thesis for study programm ... |       |          |      |
| 15XNDM         | Master Thesis for study programm ...  | 16XNDM | Master Thesis for study programm ... | 17XNDM                               | Master Thesis for study programm ... |       |          |      |
| 18XNDM         | Master Thesis for study programm ...  | 20XNDM | Master Thesis for study programm ... | 21XNDM                               | Master Thesis for study programm ... |       |          |      |
| 22XNDM         | Master Thesis for study programm ...  |        |                                      |                                      |                                      |       |          |      |
| XS-NK-LA-25/26 | Seminá k DP Mgr. kombinovaná LA od 2025/26  |        |                                      | Min. cours.<br>1<br>Max. cours.<br>1 | Min/Max<br>8/8                       |       |          | Z    |
| 11XN4K         | Seminar for Diploma Thesis  | 12XN4K | Seminar for Diploma Thesis           | 14XN4K                               | Seminar for Diploma Thesis           |       |          |      |
| 15XN4K         | Seminar for Diploma Thesis  | 22XN4K | Seminar for Diploma Thesis           | 17XN4K                               | Seminar for Diploma Thesis           |       |          |      |
| 18XN4K         | Seminar for Diploma Thesis  | 20XN4K | Seminar for Diploma Thesis           | 21XN4K                               | Seminar for Diploma Thesis           |       |          |      |
| 16XN4K         | Seminar for Diploma Thesis  |        |                                      |                                      |                                      |       |          |      |
| Y2-NK-LA-24/25 | PVP-B Mgr. kombinovaný LA od 2024/25  |        |                                      | Min. cours.<br>3<br>Max. cours.<br>3 | Min/Max<br>6/6                       |       |          | PV   |
| 17W2AM         | Application of Marketing Tools i ...  | 21W2CR | CRM                                  | 17W2FM                               | Financing in Urban Mass Transpor ... |       |          |      |
| 21W2FM         | Aviation Company Financial Manag ...  | 15W2HS | Road Transport History               | 14W2KI                               | Capital Investment in Transporta ... |       |          |      |
| 15W2MS         | Sociology for Managers  | 21W2MK | Marketing of Air Transport           | 15W2OZ                               | Health Protection in Transportat ... |       |          |      |
| 15W2PT         | Food in Transportation  | 21W2PP | Law and Operation in Air Transpo ... | 15W2SR                               | Stylistics and Rhetorics             |       |          |      |
| 15W2TS         | Technician and Contemporary Soci ...  |        |                                      |                                      |                                      |       |          |      |

## 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 |

