Study plan

Name of study plan: PL nav.komb.21/22

Faculty/Institute/Others: Department: Branch of study guaranteed by the department: Welcome page Garantor of the study branch: Program of study: Technology in Transportation and Telecommunications Type of study: Follow-up master combined Required credits: 120 Elective courses credits: 0 Sum of credits in the plan: 120 Note on the plan:

Name of the block: Compulsory courses Minimal number of credits of the block: 108 The role of the block: Z

Code of the group: 1.S.NKPL 21/22 Name of the group: 1.sem.nav.komb.PL v 21/22 Requirement credits in the group: In this group you have to gain 30 credits Requirement courses in the group: In this group you have to complete 7 courses Credits in the group: 30 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
21BLED	Aviation Safety	Z,ZK	4	2P+2C+14B	Z	Z
21CNSY	CNS Systems Stanislav Pleninger	Z,ZK	4	3P+1C+16B	Z	Z
21LKSK	Aircraft Structures	Z,ZK	6	16B	Z	Z
21PLDO	Air Carrier Operation	Z,ZK	5	3P+1C+14B	Z	Z
21POHK	Aircraft Propulsion	Z,ZK	7	16B	Z	Z
22SLN	Air Traffic Accident Investigation	KZ	2	2P+0C+12B	Z	Z
15J2A1	Language - English 1 Barbora Horá ková, Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Marek Tome ek, Markéta Musilová,	Z	2	0P+2C+10B	Z	Z

Characteristics of the courses of this group of Study Plan: Code=1.S.NKPL 21/22 Name=1.sem.nav.komb.PL v 21/22

21BLED Aviation Safety	Z,ZK	4					
Reliability and system lifecycle. Basics of reliability theory. Reliability mathematical tools. Reliability analysis. Maintenance system. Safety and quality theory. Basic concepts of safety.							
Managing of safety. Safety management. Safety management strategies. Hazard, risk. Risk management.							
21CNSY CNS Systems	Z,ZK	4					
Subject provides full technical informations about CNS (communication, navigation, surveilance) systems used in aviation. Systems are presented in p	perspective of futu	ire development.					
21LKSK Aircraft Structures	Z,ZK	6					
History and development of aeronautics. Classification of aircraft. Fundamental parts and systems. Safety, reliability and airworthiness. Limit states o	of aircraft structure	e and strength					
certification. Aviation regulations. Load factor. Manoeuvring loads. Manoeuvring envelope of load factor. Gust load. Gust load factor and envelope of	gust load factor.						
21PLDO Air Carrier Operation	Z,ZK	5					
Mission and importance of air transport. Legislation. Airlines - structure, strategy. Performances in air transport. Cost structure. Fuel management. Ca	argo. Aircraft mair	ntenance					
(organization) and economics of aircraft operation. Ground handling and other services. Safety / Security / Quality and Compliance monitoring. Reve	nue managemen	t. Air transport					
and environment.							
21POHK Aircraft Propulsion	Z,ZK	7					
Theoretical background. Earth atmosphere. Classification of aircraft engines, characteristics, domains of use, comparative parameters, characteristics a	and criteria. Energ	y transformation					
within aircraft propulsion systems, thermal cycles analysis, working substances, environmental constraints, efficiencies. Reciprocating and turbine er	ngines, their cons	truction and					
material characteristics and performance characteristics. Environmental impacts.							
22SLN Air Traffic Accident Investigation	KZ	2					
Specification of forensic expertise. Rregulations and establishments for exceptional events in air traffic. Analysis of air traffic accidents (cause investigation, time course, human factor).							
Air traffic accidents prevention. Exceptional aviation event report. Analysis of particular accidents in air traffic.							

15J2A1	Language - English 1	
Presentation Skills - exp	pert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.	

Ζ

2

Code of the group: 2.S.NKPL 15/16 Name of the group: 2.sem.nav.komb.PL (od) 15/16

Requirement credits in the group: In this group you have to gain 24 credits

Requirement courses in the group: In this group you have to complete 7 courses

Credits in the group: 24

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
16PDP	Principles of Vehicle Design Jaroslav Machan, David Lehet Jaroslav Machan (Gar.)	ZK	2	2P+0C+8B	L	Z
21KST	Space Technology Jakub Hospodka, Jakub Trýb Jakub Hospodka (Gar.)	ZK	3	2P+10C+10B	L	Z
21NSR	Navigation and Flight Control Systems Jakub Hospodka, Milan Kameník, Ladislav Capoušek Jakub Hospodka	Z,ZK	5	3P+2C+14B	Z	Z
21SPOL	Aircraft Technology Reliability Old ich Štumbauer, Natalia Guskova, Kate ina Grötschelová Andrej Lališ (Gar.)	Z,ZK	4	2P+1C+12B	L	Z
21AITM	Air Traffic Management Terézia Pilmannová	KZ	4	3 P+2C+14 B	L	Z
23SCT	Airport Security	ΚZ	4	2P+1C+12B	L	Z
15JBA2	Language - English 2 Barbora Horá ková, Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Marek Tome ek, Markéta Musilová,	Z	2	0P+2C+10B	L	Z

Characteristics of the courses of this group of Study Plan: Code=2.S.NKPL 15/16 Name=2.sem.nav.komb.PL (od) 15/16

16PDP	Principles of Vehicle Design	ZK	2			
Design of transportation vehicle according to its usage and function. Marketing and user demands. Vehicle dynamics. Propulsion systems. Design process, functional design and						
vehicle structure. Evaluation	ation of variant concepts. Design phases. Realiability, technological aspects etc.					
21KST	Space Technology	ZK	3			
Universe and its basic of	haracteristics. Fundamentals of astrophysics. Kepler's laws. Solar system. Earth's and its atmosphere and outer space. Space	ce transport vehic	les. Rockets and			
rocket engines and thei	r structure and operational characteristics. Space crafts and satellites, space flight. Orbital mechanics. Application of space te	echnologies for gl	obal navigation			
and communication. Sp	ace exploration and piloted space flights and missions.					
21NSR	Navigation and Flight Control Systems	Z,ZK	5			
Navigation. Radionaviga	tion. Satellite navigation. Flight management system. Autopilot. FMC. Practical execution of flight.					
21SPOL	Aircraft Technology Reliability	Z,ZK	4			
Subject deals with tuition	of separate attributes of reliability (no failure, vitality, maintainability, and so on) and main criterions of safety of production and	, working of aerosp	ace engineering.			
General legalities are in	the framework of tuition demonstrated on the example of calculation of reliability of integral characteristics of materials and	they are practical	illustration of its			
security in The Czech P	olice Aviation Department.					
21AITM	Air Traffic Management	KZ	4			
Current ATM system an	d its functional blocks. View of ATM data (technical architecture and configuration, transmission systems and networks). Data	a exchange with n	eighboring ATM			
systems. Monitoring sys	tems and technical supervision. ATM simulation. ATM conceptions and strategies for next years. EUROCONTROL - CFMU. FAI	B. ATS's - AOC's c	data applications.			
23SCT	Airport Security	KZ	4			
Division of airport in terr	ns of security, design, standards and conventions, forms of risk in general, the analysis and management of risk in the ground	l security, emerge	ncy plans, mode			
of airport security, identification and security systems, radar systems and their role in security operations, scanning systems, X-rays and microwave scanners, intelligence services and						
security services at the airport, the technology used to ensure the security.						
15JBA2	Language - English 2	Z	2			
Presentation Skills - exp	bert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.					

Code of the group: 3.S.NKPL 19/20

Name of the group: 3.sem.nav.komb.PL (od) 19/20

Requirement credits in the group: In this group you have to gain 24 credits

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

Credits in the group: 24

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 Evženie Uglickich, Šárka Vorá ová, Natálie Blahitka, Michal Matowicki, Pavla Pecherková Pavla Pecherková Šárka Vorá ová (Gar.)	Z,ZK	4	2P+2C+14B	z	Z
21ERGK	Ergonomy in Aviation Technology Vladimír Socha	Z,ZK	6	18B	Z	Z

21PSAP	Aircraft and Spacecraft Instrumentation	Z,ZK	4	2P+2C+14B	Z	Z
21ULET		Z,ZK	6	3P+1C+16B	Z	Z
21LEN1	Aviation English 1 Terézia Pilmannová	Z	2	0P+2C+10B	Z	Z
15JBA3	Language - English 3 Barbora Horá ková, Jitka He manová, Dana Boušová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Eva Rezlerová	Z	2	0P+2C+10B	Z	Z

Characteristics of the courses of this group of Study Plan: Code=3.S.NKPL 19/20 Name=3.sem.nav.komb.PL (od) 19/20

11STS	Stochastic Systems	7 7K	4					
The subject deals with	be problems of mathematical modelling of dynamical systems, estimation of these models and their utilization for prediction	The results are i	llustrated on					
practical transportation	to provide a manufacture model of the second second second and the second second and the second s	abilistic approact						
practical transportation			1.					
21ERGK	Ergonomy in Aviation Technology	Z,ZK	6					
Stages and processes	of aviation technology lifecycle. Software and information systems. Related segments. Key information to each stage. Aviation t	echnology develo	pment proposal.					
Technical requirements	definition. Pricing and costs. Aviation technology production. Operation assurance. Modernization, obsolescence and decom	ission of aviation	technology.					
21PSAP	Aircraft and Spacecraft Instrumentation	Z,ZK	4					
The course deals with a	theory and description of basic functions, structures and principles of aircraft and spacecraft instrumentation working in a low	-frequency band.	Within the scope					
of this course it is possib	le to get knowledge about instrument boards, propulsion parameters measurements, aerometrical systems, and fuselage health	n monitoring syster	ms. Furthermore,					
gyroscopic systems and	d systems for navigation are also covered.							
21ULET		Z,ZK	6					
21LEN1	Aviation English 1	Z	2					
Aircraft description. Airl	ne business and marketing. Airports and handling services. Maintenance. Air traffic services. Aviation history. Accident inves	tigation. Human fa	actors. Aviation					
economics. Development of air services. Low cost airlines. Airline history. Market development. Company management. Airport design. Ecology.								
15JBA3	Language - English 3	Z	2					
Presentation Skills - ex	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: 4.S.NKPL 17/18

Name of the group: 4.sem.nav.komb.PL (od) 17/18

Requirement credits in the group: In this group you have to gain 4 credits

Requirement courses in the group: In this group you have to complete 2 courses

Credits in the group: 4

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
21LCA2	Aviation English 2 Slobodan Stoji	Z,ZK	2	0P+2C+10B	L	Z
15JBA4	Language - English 4 Barbora Horá ková, Jitka He manová, Lenka Monková, Peter Morpuss, Markéta Vojanová, Marie Michlová, Markéta Musilová, Jan Feit, Eva Rezlerová	ZK	2	0P+2C+10B	L	Z

Characteristics of the courses of this group of Study Plan: Code=4.S.NKPL 17/18 Name=4.sem.nav.komb.PL (od) 17/18

21LCA2	Aviation English 2	Z,ZK	2			
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: XNDPPLK 16/17

Name of the group: Diplomová práce nav.komb.PL (od)16/17

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) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
11XNDP	Master Thesis Evženie Uglickich	KZ	18	0P+20C+70B	L	Z
12XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
14XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
15XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
16XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z

17XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
18XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
20XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z
21XNDP	Master Thesis Slobodan Stoji , Miloš Strouhal, Vladimír Socha, Peter Vittek, Iveta Kameníková, Petr Had, Petr Lukeš, Stanislav Pleninger, Petr en k,	KZ	18	0P+20C+70B	L	Z
22XNDP	Master Thesis	KZ	18	0P+21C+70B	L	Z
23XNDP	Master Thesis	KZ	18	0P+20C+70B	L	Z

Characteristics of the courses of this group of Study Plan: Code=XNDPPLK 16/17 Name=Diplomová práce nav.komb.PL (od)16/17

11XNDP	Master Thesis	KZ	18
12XNDP	Master Thesis	KZ	18
14XNDP	Master Thesis	KZ	18
15XNDP	Master Thesis	KZ	18
16XNDP	Master Thesis	KZ	18
17XNDP	Master Thesis	KZ	18
18XNDP	Master Thesis	KZ	18
20XNDP	Master Thesis	KZ	18
21XNDP	Master Thesis	KZ	18
22XNDP	Master Thesis	KZ	18
23XNDP	Master Thesis	KZ	18

Code of the group: XNSPLK 16/17

Name of the group: Seminá k DP nav.komb.PL (od)16/17

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) Tutors, authors and guarantors (gar.)	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
16XN4K	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 Jakub Hospodka, Natalia Guskova, Andrej Lališ, Slobodan Stoji , Vladimír Socha, Peter Vittek, Iveta Kameníková, Petr Had, Petr Lukeš,	Z	8	8B	L	Z
22XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z
23XN4K	Seminar for Diploma Thesis	Z	8	8B	L	Z

Characteristics of the courses of this group of Study Plan: Code=XNSPLK 16/17 Name=Seminá k DP nav.komb.PL (od)16/17

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
16XN4K	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
22XN4K	Seminar for Diploma Thesis	Z	8
23XN4K	Seminar for Diploma Thesis"	Z	8

Name of the block: Compulsory elective courses Minimal number of credits of the block: 12 Code of the group: W2-NKPL 21/22 Name of the group: PVP nav.komb.PL 21/22 Requirement credits in the group: In this group you have to gain 12 credits Requirement courses in the group: In this group you have to complete 4 courses Credits in the group: 12 Note on the group:

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Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
17W2AM	Application of Marketing Tools in Transportation	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	KZ	3	8B	L	PV
14W2KI	Capital Investment in Transportation and Telecommunications	KZ	3	8B	L	PV
21W2LS	Air Traffic Services	KZ	3	8B	L	PV
15W2MS	Sociology for Managers	KZ	3	8B	Z	PV
21W2MS	Aerospace Engineering Simulation and Modelling	KZ	3	8B	Z	PV
21W2MC	CNS Systems Modelling	KZ	3	8B	Z	PV
15W2OZ	Health Protection in Transportation and EU Petr Musil	KZ	3	8B	Z	PV
15W2PT	Food in Transportation	KZ	3	8B	L	PV
21W2PP	Law and Operation in Air Transport	KZ	3	8B	L	PV
21W2PL	Operational Aspects of Aerodromes	KZ	3	8B	Z	PV
17W2RZ	Control of Transport Processes	KZ	3	8B	Z	PV
15W2SR	Stylistics and Rhetorics	KZ	3	8B	Z	PV
17W2SK	Urban and Regional Rail Transit Systems	KZ	3	8B	L	PV
15W2TS	Technician and Contemporary Society	KZ	3	8B	L	PV

Characteristics of the courses of this group of Study Plan: Code=W2-NKPL 21/22 Name=PVP nav.komb.PL 21/22

17W2AM Application of Marketing Tools in Transportation	K7	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.						
21W2CR CRM	K7	3				
Introduction to CRM. Analysis of air accidents. Human factor. Error. Historical development of CRM. Health and fitness. Stress and its effect on the hu	ıman body. Fatiqi	ue Sleep &				
Vigilance. Information Processing. Situational Awareness. Workload Management. Decision Making. Communication. Leadership & amp; Team Behav	iour. Automation.					
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. Undergrou	nd building and c	peration. Other				
UMT types. UMT development in small towns. Particularities of investment and operation financing of individual UMT types. Historic and present mod	lels of UMT finan	cing. Transport				
inspection and blind passengers. Tourism & amp; UMT. UMT typology & amp; choice of optimum financing.						
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 reso	urces, depreciatio	on, retained				
earnings, shares, bonds, loans, leasing, capital. Financial and economic analysis of the company - structure and content.						
15W2HS Road Transport History	KZ	3				
Roads and road traffic in the Ancient Age, corridors of main mediveal pathways. Development of road traffic in the modern period, acceleration of road	d transport deve	lopment 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.						
14W2KI Capital Investment in Transportation and Telecommunications	KZ	3				
Financial market, investment desicion making - long term goals and investment strategies, long term financing						
21W2LS Air Traffic Services	KZ	3				
Airspace structure in Czech Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, A	PP a ACC contro	ol. Procedural				
and radar control. Incidents caused or partially caused by ATS. History of ATS and Czech airspace.						
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.						
21W2MS Aerospace Engineering Simulation and Modelling	KZ	3				
The course is designed as a set of exemplary tasks and problems based on practical aviation issues. The university degree mathematic skills and software applications usage will be						
necessary for successful figuring out. Both simple tasks, where students create own model themselves (e.g. in Matlab), and more complicated proble	ms where profess	sional developed				
tools will be applied.						
21W2MC CNS Systems Modelling	KZ	3				

15W2OZ	Health Protection in Transportation and EU	KZ	3		
Health protection in trar	sportation in CR in the past and present. Conditions before 1989 and after, current legislature, future prospects. Harmonisati	ion of legislation v	with other EU		
members. Fundamental	principles of health protection and support in selected EU countries.				
15W2PT	Food in Transportation	KZ	3		
The nutrition policy. Inte	raction transportation and foodstuffs. The health risks. Hygienic safeguard. The practical examples from the Czech Republic	and from the worl	d. The issues of		
dining cars, work trains	and other railroad equipment. Legislation.				
21W2PP	Law and Operation in Air Transport	KZ	3		
Development of aviation	naw. International conventions on civil aviation. International organisations and including of the Czech Republic in these organisations	anisations. EU leg	islation and civil		
aviation. Execution of st	ate administration and state supervision in matters of civil aviation, in accordance with Act No. 49/1997 Col. Facilitation. Resp	consibilities of air	carriers for		
passengers, luggage ar	nd cargo. The safe transport of dangerous goods.				
21W2PL	Operational Aspects of Aerodromes	KZ	3		
Operational aspects of	aerodromes. Location of aerodrome and orientation of runways. Requirements for apron. Capacity of airports runways and te	rminals. Operatio	n under winter		
conditions. Firefighting	units. Protection against unlawful interference. Local transport connection. Environmental protection.				
17W2RZ	Control of Transport Processes	KZ	3		
Theoretical bases, trans	sport system, decomposition, factors influencing control, quality diagnosis, methods of control, systems for decision making s	upport, risk of de	cision making,		
telematics.					
15W2SR	Stylistics and Rhetorics	KZ	3		
Basic skills of oral and v	written expression as a means of human communication. Basic information about speech, articulation, oral and written langua	age. Teaching to s	speak well-vocal		
organs, voice training. L	anguage semantics, language syntactic and the pragmatic aspect. Creative thought and its oral and written expression. Practic	ce - cultivating the	skills of speech.		
17W2SK	Urban and Regional Rail Transit Systems	KZ	3		
Factors influencing tran	sport demand, modal-split, traffic flows distribution on public transit network. Line network optimization and configuration. Tim	etable designing	and evaluation		
accenting integrated periodic timetable. Rolling stock circulation, staff and crew services optimization and their order to rosters. Framework legislation, non-barrier effects and preference					
of public transport. Marketing.					
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 is on the					
Internet and in newspar	pers, what are the sights for, interest in public affairs - a hangover from the past?				

List of courses of this pass:

Code	Name of the course	Completion	Credits				
11STS	Stochastic Systems	Z,ZK	4				
The subject deal	The subject deals with the problems of mathematical modelling of dynamical systems, estimation od these models and their utilization for prediction. The results are illustrated on						
practical tra	insportation tasks. Mathematical theory roots from probability and mathematical statistics and they use the methods of the Bayesian	probabilistic appro	ach.				
11XN4K	Seminar for Diploma Thesis	Z	8				
11XNDP	Master Thesis	KZ	18				
12XN4K	Seminar for Diploma Thesis	Z	8				
12XNDP	Master Thesis	KZ	18				
14W2KI	Capital Investment in Transportation and Telecommunications	KZ	3				
	. Financial market, investment desicion making - long term goals and investment strategies, long term financing						
14XN4K	Seminar for Diploma Thesis	Z	8				
14XNDP	Master Thesis	KZ	18				
15J2A1	Language - English 1	Z	2				
P	resentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work	engagement.					
15JBA2	Language - English 2	Z	2				
P	resentation Skills - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work	engagement.					
15JBA3	Language - English 3	Z	2				
Presentation Skill	s - expert technical discourse and style; Analysis of expert texts and their production; Preparation for overseas work engagement.Op	tional courses for	certificates				
45 10 4 4	FCE, CAE.	71/	0				
15JBA4	Language - English 4	∣ ∠K	2				
Presentation Skill	FCE, CAE.	Courses for	centincates				
15W2HS	Road Transport History	KZ	3				
Roads and road tr	affic in the Ancient Age, corridors of main mediveal pathways. Development of road traffic in the modern period, acceleration of road	transport developr	nent during				
1st part of 20th cer	ntury. Development of road layout, geometric and construction layers. Beginning of modern road civil engineering. Development of ro	ad travelling in mo	dern period.				
	History of road intercections, bridges and traffic control, development of road signs.						
15W2MS	Sociology for Managers	KZ	3				
Sociological app	roach to a corporation. Corporation and its organization. Corporation and its running - human role and communication. Corporation, i	ts culture and soci	al system.				
	luman'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							
4.514/207	members. Fundamental principles of nealth protection and support in selected EU countries.	1/7	2				
15VV2P1	FOOD IN Iransportation	KZ	3				
the number policy. Interaction transportation and toousturis. The health fisks myglenic saleguard, 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	K7	3
Basic skills of oral	orginatios and interconces	Teaching to spea	k well-vocal
organs voice traini	and written expression as a means or numeric communication. Description about speech, a realization, or a and written ranguage	cultivating to spea	s of speech
	g. Language semantics, ranguage syntactic and the proginatic aspect or early a mount is or a and written expression. I racice		
1500215	lecnnician and Contemporary Society	KZ	3
Why to take off a ha	at 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 l	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
15XNDP	Master Thesis	KZ	18
16PDP	Principles of Vehicle Design	7K	2
Design of transp	ortation vehicle according to its usage and function. Marketing and user demands. Vehicle dynamics. Propulsion systems. Design pro	cess functional de	esion and
	vehicle structure Evaluation of variant concents Design phases. Realiability technological aspects etc.		oligin and
	venice structure. Evaluation of variant concepts body made. (Celladony, technological aspects etc.	7	0
10/11/4/	Seminar for Diploma Thesis		0
16XNDP	Master Thesis	KZ	18
17W2AM	Application of Marketing Tools in Transportation	KZ	3
Application of r	narketing principles in transport issues, marketing tools suitable for transport, case studies of the use of marketing in the sphere of p	ublic passenger tra	ansport.
17W2FM	Financing in Urban Mass Transportation	KZ	3
UMT history and d	evelopment in Prague and other cities in the world. Building and operation of public tram, bus, and trollevbus networks. Underground	building and operation	ation. Other
UMT types UMT o	evelopment in small towns Particularities of investment and operation financing of individual UMT types. Historic and present model	s of UMT financing	Transport
	inspection and blind passengers. Tourism & amo: LIMT LIMT typology & amo: choice of ontimum financing		gi manoport
17\/\0D7	Contral of Transport Processo	1/7	2
	Control or indicates and the second of the second	NZ	J
I neoretical bases		port, risk of decision	on making,
	telematics.		-
17W2SK	Urban and Regional Rail Transit Systems	KZ	3
Factors influencing	g transport demand, modal-split, traffic flows distribution on public transit network. Line network optimization and configuration. Timeta	able designing and	l evaluation
accenting integrate	d periodic timetable. Rolling stock circulation, staff and crew services optimization and their order to rosters. Framework legislation, non	-barrier effects and	d preference
	of public transport. Marketing.		
17XN4K	Seminar for Diploma Thesis	Z	8
17XNDP	Master Thesis	K7	18
1920/16	Sominas for Diploma Thesis	7	0
	Seminario Diploma mesis	2	0
18XNDP	Master Thesis	KZ	18
20XN4K	Seminar for Diploma Thesis	Z	8
20XNDP	Master Thesis	ΚZ	18
21AITM	Air Traffic Management	K7	4
Current ATM system	m and its functional blocks. View of ATM data (technical architecture and configuration, transmission systems and networks). Data av	change with neigh	horing ATM
systems Monitoring	in and its indicated backs, view of Armidate (technicated and intercent and comparation, trainings) of a state the works). Date and technical supervision ATM concentrions and technical supervision ATM concentrions and technical supervision (TM simulation).	Change with heigh	applications
	systems and technical supervision. Any annualion. Any one prior and strategies to next years. E000000000000000000000000000000000000		
ZIBLED	Aviation Salety	Z,ZK	4
Reliability and syst	em lifecycle. Basics of reliability theory. Reliability mathematical tools. Reliability analysis. Maintenance system. Safety and quality the	eory. Basic concep	ts of safety.
	Managing of safety. Safety management. Safety management strategies. Hazard, risk. Risk management.		
21CNSY	CNS Systems	Z,ZK	4
Subject provides fu	Il technical informations about CNS (communication, navigation, surveilance) systems used in aviation. Systems are presented in pers	pective of future de	evelopment.
21ERGK	Ergonomy in Aviation Technology	Z,ZK	6
Stages and process	ses of aviation technology lifecycle. Software and information systems. Related segments. Key information to each stage. Aviation tech	nology developme	nt proposal.
Technical require	ements definition. Pricing and costs. Aviation technology production. Operation assurance. Modernization, obsolescence and decomis	sion of aviation te	chnology.
21KST	Space Technology	7K	3
Universe and its ba	sic characteristics Fundamentals of astrophysics Kenler's laws. Solar system Earth's and its atmosphere and outer space. Space to	ansport vehicles	Rockets and
rocket engines and	their structure and operational characteristics. Space crafts and satellites space flight Orbital mechanics. Application of space tech	nologies for global	navigation
	and communication. Space exploration and piloted space flight orbital mediantes of ppice term		
241 0 4 2	Aviation English 9	7 71/	2
		<u>ک,کٹر</u>	2
21LEN1	Aviation English 1	<u>ک</u>	2
Aircraft description	n. Airline business and marketing. Airports and handling services. Maintenance. Air traffic services. Aviation history. Accident investiga	ation. Human facto	rs. Aviation
	economics. Development of air services. Low cost airlines. Airline history. Market development. Company management. Airport desig	n. Ecology.	
21LKSK	Aircraft Structures	Z,ZK	6
History and develo	opment of aeronautics. Classification of aircraft. Fundamental parts and systems. Safety, reliability and airworthiness. Limit states of a	ircraft structure ar	nd strength
certificatio	n. Aviation regulations. Load factor. Manoeuvring loads. Manoeuvring envelope of load factor. Gust load. Gust load factor and envelop	pe of gust load fact	tor.
21NSR	Navigation and Flight Control Systems	Z,ZK	5
	Navigation. Radionavigation. Satellite navigation. Flight management system. Autopilot. FMC. Practical execution of flight.	,	
	Air Carrier Operation	7 7K	5
Mission and im	portance of air transport Legislation Airlines - structure strategy Performances in air transport Cost structure Fuel management C	متعرم Aircraft main	tenance
(organization) and	Leconomics of aircraft operation. Ground handling and other services. Safety / Security / Quality and Compliance monitoring. Percent	e management A	ir transport
	and anvironment	o management. Al	
		7 71/	-7
ZIPOHK	Aircratt Propulsion	Κ	1
i neoretical backgro	pund. Earth atmosphere. Classification of aircraft engines, characteristics, domains of use, comparative parameters, characteristics and	criteria. Energy tra	nstormation
within aircraft pro	pulsion systems, thermal cycles analysis, working substances, environmental constraints, efficiencies. Reciprocating and turbine enc	gines, their constru	iction and
	material characteristics and performance characteristics. Environmental impacts.		
21PSAP	Aircraft and Spacecraft Instrumentation	Z,ZK	4
21PSAP The course deals w	Aircraft and Spacecraft Instrumentation ith a theory and description of basic functions, structures and principles of aircraft and spacecraft instrumentation working in a low-free	Z,ZK quency band. With	4 in the scope
21PSAP The course deals w of this course it is po	Aircraft and Spacecraft Instrumentation ith a theory and description of basic functions, structures and principles of aircraft and spacecraft instrumentation working in a low-free pssible to get knowledge about instrument boards, propulsion parameters measurements, aerometrical systems, and fuselage health mo	Z,ZK quency band. With nitoring systems. F	4 in the scope urthermore,

24600	Aircreft Technology Delichility	7 71/	4			
	Aircrait recriming Kenability	Z,ZR	4			
Subject deals with fultion of separate attributes of reliability (no failure, vitality, maintainability, and so on) and main criterions of safety of production and working of aerospace engineering.						
General legalities a	the in the framework of futuron demonstrated on the example of calculation of reliability of megral characteristics of materials and they convirt is The Crack Police Aviation Department.	are practical lifus	tration of its			
	security in the Czech Police Aviation Department.	7 71/	0			
210LE1		Z,ZK	6			
21W2CR	CRM	KZ	3			
Introduction to CRI	A. Analysis of air accidents. Human factor. Error. Historical development of CRM. Health and fitness. Stress and its effect on the huma	an body. Fatigue S	leep &			
Vigilance. I	nformation Processing. Situational Awareness. Workload Management. Decision Making. Communication. Leadership & Amp; Team B	ehaviour. Automat	ion.			
21W2FM	Aviation Company Financial Management	KZ	3			
Theories of corp	prate finance - financial statements, budget, forecast. Financial policy of the company. Financial resources - long-term financial resou	rces, depreciation	, retained			
	earnings, shares, bonds, loans, leasing, capital. Financial and economic analysis of the company - structure and content.					
21W2LS	Air Traffic Services	KZ	3			
Airspace structure	e in Czech Republic and other countries. Introduction and description of ATS units in Czech Republic. Practical examples of TWR, AP	P a ACC control.	Procedural			
	and radar control. Incidents caused or partially caused by ATS. History of ATS and Czech airspace.					
21W2MC	CNS Systems Modelling	KZ	3			
21W2MS	Aerospace Engineering Simulation and Modelling	KZ	3			
The course is desig	gned as a set of exemplary tasks and problems based on practical aviation issues. The university degree mathematic skills and softw	are applications us	sage will be			
necessary for succ	essful figuring out. Both simple tasks, where students create own model themselves (e.g. in Matlab), and more complicated problems	where professiona	al developed			
	tools will be applied.					
21W2PL	Operational Aspects of Aerodromes	KZ	3			
Operational aspec	ts of aerodromes. Location of aerodrome and orientation of runways. Requirements for apron. Capacity of airports runways and term	inals. Operation ur	nder winter			
	conditions. Firefighting units. Protection against unlawful interference. Local transport connection. Environmental protection					
21W2PP	Law and Operation in Air Transport	KZ	3			
Development of av	ation law. International conventions on civil aviation. International organisations and including of the Czech Republic in these organis	ations. EU legislat	ion and civil			
aviation. Executi	on of state administration and state supervision in matters of civil aviation, in accordance with Act No. 49/1997 Col. Facilitation. Respo	onsibilities of air ca	arriers for			
	passengers, luggage and cargo. The safe transport of dangerous goods.					
21XN4K	Seminar for Diploma Thesis	Z	8			
21XNDP	Master Thesis	KZ	18			
22SLN	Air Traffic Accident Investigation	KZ	2			
Specification of fore	ensic expertise. Rregulations and establishments for exceptional events in air traffic. Analysis of air traffic accidents (cause investigatio	n, time course, hu	man factor).			
	Air traffic accidents prevention. Exceptional aviation event report. Analysis of particular accidents in air traffic.					
22XN4K	Seminar for Diploma Thesis	Z	8			
22XNDP	Master Thesis	KZ	18			
23SCT	Airport Security	KZ	4			
Division of airport in	n terms of security, design, standards and conventions, forms of risk in general, the analysis and management of risk in the ground sec	curity, emergency	olans, mode			
of airport security, identification and security systems, radar systems and their role in security operations, scanning systems, X-rays and microwave scanners, intelligence services and						
22281412	Source sources at the anyors, the technology used to ensure the second.	7	0			
23XIN4K	Seminar for Diploma Thesis	۷.	ð			
23XNDP	Master I hesis	ΚZ	18			

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