## Study plan

## Name of study plan: TRELPASO nav.prez 11/12

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 full-time

Required credits: 50 Elective courses credits: 0 Sum of credits in the plan: 50

Note on the plan:

Name of the block: Semestrální projekt Minimal number of credits of the block: 16

The role of the block: ZP

Code of the group: XNTR1 DP 1.S. 11/12

Name of the group: Dipl.práce ELPASO 1.sem.od 11/12

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 1 course

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
17XNT1	CTU Thesis 1	Z	6	0+6	Z	ZP

### Characteristics of the courses of this group of Study Plan: Code=XNTR1 DP 1.S. 11/12 Name=Dipl.práce ELPASO 1.sem.od 11/12

17XNT1 CTIT Thesis 1				
T/A(1) OTO TICSIST	17XNT1	CTU Thesis 1	 Z	6

Code of the group: XNTR2 DP 2.S. 11/12

Name of the group: Dipl.práce ELPASO 2.sem.od 11/12

Requirement credits in the group: In this group you have to gain 10 credits Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 10 Note on the group:

	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
17XNT2	CTU Thesis 2	Z	10	0+10	L	ZP

## Characteristics of the courses of this group of Study Plan: Code=XNTR2 DP 2.S. 11/12 Name=Dipl.práce ELPASO 2.sem.od 11/12

17XNT2	CTU Thesis 2	Z	10

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 34

The role of the block: P

Code of the group: 1.S.NPTRELPASO 11/12

Name of the group: 1.sem.nav.prez.TR ELPASO od 11/12

Requirement credits in the group: In this group you have to gain 19 credits

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

Credits in the group: 19 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
12TDP	Traffic Flow Theory Vladimír Faltus	Z,ZK	3	2P+1C	Z	Р
17ILO	Information Technology in Logistics	Z,ZK	4	2+2	Z	Р
17LGY	Logistics Systems	Z,ZK	6	3+2	Z	Р
17PJM	Project Management	ZK	2	2+0	Z	Р
11MME	Mathematical Models in Economics	KZ	2	1+1	Z	Р
12DZP	Transport and Environment	Z	2	2P+0C	Z	Р

Characteristics	of the courses of this group of Study Plan: Code=1.S.NPTRELPASO 11/12 Name=1.sem.nav.	prez.TR ELPA	SO od 11/1:
12TDP	Traffic Flow Theory	Z,ZK	3
Mobility and associa	ited human problems. Basic traffic parameters and their measurement. Estimation of quality of services. Theoretical fundamental	s and applications	of mathematical
models. Macroscop flow management.	c, statistical and microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation	between traffic mo	dels and traffic
17ILO	Information Technology in Logistics	Z,ZK	4
Basics of bar code t	echnology. Basics of radiofrequency identification. Product numbering systems for intensive distribution. Packaging hierarchy ar	nd identification mo	dels in supply
chain. Identification	of trading partners in the supply chain. Basics of data communication in logistics. National and global multidisciplinary standard	s for electronic data	a interchange.
ERP Systems used	in retail and fast moving consumer goods.		
17LGY	Logistics Systems	Z,ZK	6
Transport in logistics	s, intermodal transport, electronic toll systems in road transport, supply chain management, logistics partnership and alliances, lo	gistic service of ter	itory, dangerous
goods in logistics, n	nanagement and marketing in logistics, identification systems in logistics, IT in logistic systems and transportation.		
17PJM	Project Management	ZK	2
Project and planning	g, project content, management and project task organization. Technical and economical assessment criterions. Criterion function	and its componen	its. Organization
and management of	the project run.		
11MME	Mathematical Models in Economics	KZ	2
Stochastic prosesse	s and their classification, Poisson process, birth and death process, queueing models and their classification, graph and related	terminology, cycle	s in a graph and
their detection, the	shortest and longest way through a graph, critical parth through a graph, extreme of a function of many arguments, free and cor	strained extremum	, Lagrange
multipliers, numeric	al methods in optimization, linear programming and its application.		
12DZP	Transport and Environment	Z	2
This course aims th	e impact of transport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy demai	nds. The noise mea	sury is part and
parcel of this course			

Code of the group: 2.S.NPTRELPASO 11/12

Name of the group: 2.sem.nav.prez.TR ELPASO od 11/12

Requirement credits in the group: In this group you have to gain 15 credits

Requirement courses in the group: In this group you have to complete at least 4 courses

Credits in the group: 15

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
17INV	Investments and Financing in Transport	Z,ZK	4	3+1	L	Р
20STL	Satellite Technologies and Logistics	Z,ZK	4	2+2	L	Р
16TAJ	Technological Aspects of Quality	Z	2	2P+0C	L	Р
17TTH	Transport Theory	Z,ZK	5	2+2	L	Р

17INV	Investments and Financing in Transport	Z,ZK	4
Projects and project	planning, project financing, financing models, PPP financing, selection procedure, EIA study, project assessment and its criteri	ons, NPV, IRR. Op	timal variant
selection. Zone plant	ning and decision making.		
20STL	Satellite Technologies and Logistics	Z,ZK	4
Basic topics: GPS ar	d Galileo navigation systems and their use for positioning the rail, air, sea, road and urban transport; GIS technology as a pow	erful tool for solving	a problems in
	3 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -		9
logistics, appropriate	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems,		· .
logistics, appropriate systems functionalities	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems,		· .
•	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems,		· .
systems functionalities 16TAJ	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems, as and its technology.	satellite as the car	rier of satellite
systems functionalitie 16TAJ Certification and acc	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems, es and its technology.  Technological Aspects of Quality	satellite as the car	rier of satellite
systems functionalities 16TAJ Certification and acco	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems, es and its technology.  Technological Aspects of Quality reditation, quality management, standards of quality management and its application, quality system creation, tools and methods	satellite as the car	rier of satellite
systems functionalitie 16TAJ Certification and acce assurance, environm 17TTH	telecommunication technologies and technologies for the identification and monitoring of goods; life cycle of satellite systems, as and its technology.  Technological Aspects of Quality reditation, quality management, standards of quality management and its application, quality system creation, tools and methods ental certification, workplace certification, QMS integration, classification, certification of products and producers.	Z of quality improver	rier of satellite  2 ment, conformity

# List of courses of this pass:

their detection, the shortest and leading to their detection, the shortest and leading to the shortest and leading	Mathematical Models in Economics sification, Poisson process, birth and death process, queueing models and their classification, graph and related longest way through a graph, critical parth through a graph, extreme of a function of many arguments, free and of multipliers, numerical methods in optimization, linear programming and its application.  Transport and Environment sport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory blems. Basic traffic parameters and their measurement. Estimation of quality of services. Theoretical fundamenta and microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation flow management.  Technological Aspects of Quality lity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	constrained extremum,  Z  Inds. The noise measury  Z,ZK  Ils and applications of m  n between traffic models  Z  s of quality improvement producers.	Lagrange  2 y is part and 3 athematica s and traffic
their detection, the shortest and I  12DZP This course aims the impact of trans  12TDP Mobility and associated human prot models. Macroscopic, statistical an  16TAJ Certification and accreditation, qual assurance,  17ILO Basics of bar code technology. Basics	longest way through a graph, critical parth through a graph, extreme of a function of many arguments, free and of multipliers, numerical methods in optimization, linear programming and its application.  Transport and Environment Isport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory Islams. Basic traffic parameters and their measurement. Estimation of quality of services. Theoretical fundamenta and microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation flow management.  Technological Aspects of Quality Ity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	constrained extremum,  Z  Inds. The noise measury  Z,ZK  Ils and applications of m  n between traffic models  Z  s of quality improvement producers.	Lagrange  2 y is part and  3 hathematicas and traffice
12DZP This course aims the impact of trans  12TDP Mobility and associated human protection models. Macroscopic, statistical an  16TAJ Certification and accreditation, qualiassurance, 17ILO Basics of bar code technology. Basics	multipliers, numerical methods in optimization, linear programming and its application.  Transport and Environment  Isport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  Isport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  Isport on environments. Theory of the accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  Isport on environments of quality of services. Theoretical fundamenta in microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation flow management.  Technological Aspects of Quality  Interpretation, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	Z unds. The noise measury  Z,ZK uls and applications of m n between traffic models  Z s of quality improvement producers.	2 y is part and 3 athematicas and traffic
This course aims the impact of trans  12TDP  Mobility and associated human prot models. Macroscopic, statistical an  16TAJ  Certification and accreditation, qual assurance,  17ILO  Basics of bar code technology. Bas	Transport and Environment  Isport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  Isport on environment. The accent is put mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  Isport on environments and their measurement. Estimation of quality of services. Theoretical fundamenta and microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation flow management.  Technological Aspects of Quality  Ity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	Z,ZK and applications of m between traffic models  Z s of quality improvement producers.	y is part and 3 athematicas and traffic
This course aims the impact of trans  12TDP  Mobility and associated human prot models. Macroscopic, statistical an  16TAJ  Certification and accreditation, qual assurance,  17ILO  Basics of bar code technology. Bas	Information Technology in Logistics  mainly on noise and vibration, emission, barrier effect and energy dema parcel of this course.  Traffic Flow Theory  blems. Basic traffic parameters and their measurement. Estimation of quality of services. Theoretical fundamenta and microscopic models. Theory of shock waves, queuing theory and special theory of traffic phenomena. Relation flow management.  Technological Aspects of Quality  lity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	Z,ZK and applications of m between traffic models  Z s of quality improvement producers.	y is part and 3 athematicas and traffic
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16TAJ   Certification and accreditation, qual assurance, 17ILO   Basics of bar code technology. Bas	flow management.  Technological Aspects of Quality  lity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	Z s of quality improvement producers.	2
Certification and accreditation, qual assurance,  17ILO  Basics of bar code technology. Bas	Technological Aspects of Quality lity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	s of quality improvement producers.	_
Certification and accreditation, qual assurance,  17ILO  Basics of bar code technology. Bas	lity management, standards of quality management and its application, quality system creation, tools and methods environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	s of quality improvement producers.	_
assurance, 17ILO Basics of bar code technology. Bas	environmental certification, workplace certification, QMS integration, classification, certification of products and Information Technology in Logistics	producers.	, conformity
17ILO Basics of bar code technology. Bas	Information Technology in Logistics	·	
Basics of bar code technology. Bas			
0.		Z,ZK	4
chain. Identification of trading part	sics of radiofrequency identification. Product numbering systems for intensive distribution. Packaging hierarchy a	and identification model	s in supply
	ners in the supply chain. Basics of data communication in logistics. National and global multidisciplinary standar	ds for electronic data in	terchange.
	ERP Systems used in retail and fast moving consumer goods.		
17INV	Investments and Financing in Transport	Z,ZK	4
Projects and project planning, pro	oject financing, financing models, PPP financing, selection procedure, EIA study, project assessment and its crit	erions, NPV, IRR. Optim	nal variant
	selection. Zone planning and decision making.		
17LGY	Logistics Systems	Z,ZK	6
Transport in logistics, intermodal tra	ansport, electronic toll systems in road transport, supply chain management, logistics partnership and alliances, lo	ogistic service of teritory	, dangerous
goods in lo	gistics, management and marketing in logistics, identification systems in logistics, IT in logistic systems and tran	nsportation.	
17PJM	Project Management	ZK	2
Project and planning, project conter	nt, management and project task organization. Technical and economical assessment criterions. Criterion function	n and its components. C	)rganizatior
	and management of the project run.		
17TTH	Transport Theory	Z,ZK	5
Elements of theory of graphs. Minim	num spanning tree, trees in graphs. Paths and cycles. Arc routing problems. Vehicle routing problems. Network flows	s. Location problems. Tra	ansportation
ele	ements. Transportation flows. Theory of displacement quality. Multicriterial decision making in transport processe	es.	
17XNT1	CTU Thesis 1	Z	6
17XNT2	CTU Thesis 2	Z	10
20STL	Satellite Technologies and Logistics	Z,ZK	4
	vigation systems and their use for positioning the rail, air, sea, road and urban transport; GIS technology as a po		roblems in

systems functionalities and its technology.

For updated information see <a href="http://bilakniha.cvut.cz/en/FF.html">http://bilakniha.cvut.cz/en/FF.html</a> Generated: day 2024-03-29, time 11:03.