



UNIVERSITY OF EAST SARAJEVO FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING DOBOJ



Courses in English for ERASMUS+ exchange students 2024/2025

PIC CODE - 995607904

ERASMUS+ contact

Associate professor Željko Stević, PhD,

vice-dean for science, research and entrepreneurship

OID - E10186879

https://sf.ues.rs.ba/eng/

I CYCLE

ICYCLE										
WINTER SEMESTER										
Code Course title Study programme ECTS Department Languag										
SAF11SZ07202245,0320	Operations Research	TTE	5	RTL	English					
SAF11SL07107565,0320 Warehouse Systems TTE 6 RTL English										

ICYCLE											
SUMMER SEMESTER											
Code Course title Study programme ECTS Department Language											
SAF11SL07107976,0320	Special Areas of Logistics	TTE	5	RTL	English						
SAF11SL07108076,0320 Industrial Logistics TTE 6 RTL English											

II CYCLE – Master's degree

II CYCLE – Master's degree										
	WINTER SEMI	ESTER								
Code	Course title	Study programme	ECTS	Department	Language					
SAF12SD03218316,0320	Traffic networks	TTE	6	RTT	English					
SAF12SD03218416,0320	Deterministic Models of Operational Research	TTE	6	RTT	English					
SAF12SD03218516,0320	Telematic Systems in Road Traffic	TTE	6	RTT	English					
SAF12SD03218816,0311	Terminals and Parking	TTE	6	RTT	English					
SAF12SŽ03119516,0320	High-Speed Train Systems	TTE	6	RTL	English					
SAF12SŽ03219616,0311	Selected Chapters from the Technology for the Exploitation of Railway Traffic	TTE	6	RTL	English					
SAF12SŽ03219716,0311	Work Theory of Railway Network Operator and Towing Organization	TTE	6	RTL	English					
SAF12SŽ03219816,0311	Planning and Design of Railway Lines	TTE	6	RTL	English					
SAF12SŽ03219916,0311	Selected Chapters from the Transport of Passengers by Rail	TTE	6	RTL	English					
SAF12SŽ03220116,0311	Selected Chapters from the Transport of Goods by Rail	TTE	6	RTL	English					
SAF12SL03120616,0311	Planning and Design of Logistics Centres	TTE	6	RTL	English					
SAF12SL03220716,0320	Operational Planning of Transhipment Processes	TTE	6	RTL	English					
SAF12SL03220816,0320	Logistics System Performance Modelling	TTE	6	RTL	English					
SAF12SL03221016,0311	Logistics of Hazardous Materials	TTE	6	RTL	English					
SAF12SL03221116,0311	Supply Chain Modelling and Management	TTE	6	RTL	English					
SAF12SL03221216,0311	Quality Management Methods in Logistics	TTE	6	RTL	English					
SAF12SD03118116,0311 SAF12SL03118116,0311 SAF12SŽ03118116,0311 SAF12ST03118116,0311 SAF12SI03118116,0311 SAF12SM03118116,0311	Models, Simulations and Animations in Traffic	TTE	6	ICST RTL RTT MVOMDV	English					
SAF12ST03121916,0311 SAF12SI03121916,0311	Telematics Systems	TTE	6	ICST	English					
SAF12ST03222016,0311	Electronic Systems	TTE	6	ICST	English					
SAF12ST03222116,0311	Project Management in Postal Traffic	TTE	6	ICST	English					
SAF12ST03210516,0311	Multimedia Communications	TTE	6	ICST	English					
SAF12ST03222216,0311	Communication Systems in Postal Traffic	TTE	6	ICST	English					
SAF12SI03209316,0311	Design and Application of Digital Systems	TTE	6	ICST	English					
SAF12SI03224616,0311	Design of Computer Networks	TTE	6	ICST	English					
SAF12SI03224716,0311	Design and Application of Information Systems	TTE	6	ICST	English					
SAF12SI03224816,0311	Design of Microprocessor Systems	TTE	6	ICST	English					
SAF12SI03222016,0311	Electronic Systems in Traffic	TTE	6	ICST	English					

II CYCLE									
	SUMMER SEM	ESTER							
Code	Course title	Study programme	ECTS	Department	Language				
SAF12SD03218926,0320	Traffic Forecasts	TTE	6	RTT	English				
SAF12SD03219026,0320	Traffic Regulation and Management	TTE	6	RTT	English				
SAF12SD03219126,0320	Traffic Design – Engineering of Street Systems	TTE	6	RTT	English				
SAF12SŽ03220426,0311	Risk Analysis	TTE	6	RTL	English				
SAF12SŽ03220526,0311	Modelling in Railway Transport	TTE	6	RTL	English				
SAF12SL03221426,0320	Special Areas of City Logistics	Special Areas of City Logistics TTE		RTL	English				
SAF12SL03221526,0320	Goods Terminals	TTE	6	RTL	English				
SAF12SL03221626,0320	Intermodal Transport Technologies	TTE	6	RTL	English				
SAF12SL03221726,0320	Logistics Organization Design	TTE	6	RTL	English				
SAF12SL03221826,0320	Warehouse Systems Management	TTE	6	RTL	English				
SAF12ST03222326,0311	Selected Chapters in the Field of Telecommunications	TTE	6	ICST	English				
SAF12ST03222526,0311 SAF12SI03222526,0311	Application of Renewable Energy Sources in Transport	TTE	6	ICST	English				
SAF12SI03210326,0311	Network Management and Services	TTE	6	ICST	English				
SAF12SI03223826,0311	Application of GIS	TTE	6	ICST	English				
SAF12SI03224926,0311	Wireless Sensor Networks	TTE	6	ICST	English				
SAF12SI03225026,0311	Parallel Computing Systems	TTE	6	ICST	English				
SAF12SM03226426,0320	Unconventional Vehicle Drives	TTE	6	MVOMDV	English				

TTE - Transport and Traffic Engineering

Departments:

RTT - Department of Road Transport and Traffic

RTL – Department of Railway Traffic and Logistics

ICST - Department of Information and Communication Systems in Traffic

MVOMDV - Department of Motor Vehicles, Operation, Maintenance and Diagnostics of Vehicles

WINTER SEMESTER – I CYCLE

	27		2	2005 ALAJHH OAF							
			Stu	dy programme:	Transport		26				
	III -		<u> </u>	Profile: Logis	tics		the second	AOEOJ			
Course title			l cycle	SPECI	IV year of stu	dy NGISTICS					
Department		Depa	artment for Transp	ort Engineering –	Faculty of Transp	ort and Traffi	c Engineer	ina Doboi			
	Code		Cou	irse status	Semes	ster	E	CTS credits			
SAF11SL	07107976,	0320	m	andatory	VII			6.00			
Professor/s	PhL) Zeljko D Žoliko									
ASSOCIATES/S	Weeklyh		JULI	Individual s	tudent hours (ne	r semester)	St	udent workload			
	тсскіў і	iouis	15					coefficient So			
L 3	2 IE		LE0	L 3*15*1 4=63	1E 2*15*1 4=42	LE 0*15*1 4=	3 0 1 <i>1 1</i>				
Total tea	∠ acher work	load (h	ours. per semeste	r)	Total studen	t workload (h	ours, per s	emester)			
	3*15 + 2*	15 + 0	*15 = 75 h	- /	3*15*1,4	+ 2*15*1,4+ ()*15*1,4 =	105 h			
			Total workload: W	+T=U _{opt} = 75 + 10	5 = 180 hours per	semester					
1. to recognize and defines the role and place of scientific disciplines of logistics in the economic											
Learning 2 to creates solutions for different logistics requirements in logistics areas:											
outcomes	comes 3. to apply certain optimization methods in basic logistic subsystems;										
	4.	4. to select and improve performance in certain busyness systems.									
Prerequisites	Nor	None									
Teaching meth	aching methods Lectures, theoretical exercises, consultations										
 2. Scientific disciplines used in logistics 											
	3. Division and content of logistics in the areas in which it is used										
	4. Securing transport and traffic										
	5.	Strate	gy for the develop	ment of logistics	and intermodal tra	nsport					
	0.	Logist	ics Strategies and	Logistics Provide	15						
Course conten	t 8.	Midter	rm test								
	9.	Logist	ics controlling, log	istics technologie	S						
	10.	Educa	ation in logistics								
	11.	Procu	rement Logistics								
	13.	Basics	s of planning in loo	pistics							
	14.	Physic	cal distribution stru	ucture, warehouse	e replenishment, tr	ansport plani	ning				
	15.	End-o	fterm test		,						
Auth	nor/s		Na	I extbook (ame of publication, p	s) ublisher	Year	r I	Pages (from-to)			
Alihodžić A	A., Stević Ž.		Special areas of lo	ogistics, University of I	East Sarajevo, Faculty	of 2014	L I	-			
				Ansport and Traffic En Additional rea	gineering dings						
Auth	nor/s		Na	ame of publication, p	ublisher	Year	r	Pages (from-to)			
Stević Ž., Alihodžić Stjepa	A., S. Knežev anović	vić, Ž.	Management of Herzegovina,	medical logistics - the International May Con Management – IMM	situation in Bosnia and ference on Strategic (SM	2016	6	154-162			
			Fuzzy AHP and A	RAS model for decisio	n making in logistics, 6	ìth					
Stević Ž., M. Vas	iljević, S. Srer	mac	International Confe	erence "Economics an New Technologies" Fl	d Management-Based MoNT-	on 2016	6	34-43			
				Vrnjačka Banja, Se	rbia						
Stević Ž., Alihodžić A., S. Knežević, Ž. Stjepanović Management of medical logistics - the situation in Bosnia and Herzegovina, International May Conference on Strategic Management – IMKSM								154-162			
	Dec	vominet	ion obligations	Assessment method	s		Points	Percentage			
	Piec				attenda	ance - lectures	5	5%			
Obligations. evalu	ation				attendar	ice - exercises	5	5%			
criteria						Seminar paper Tests	10 2x25	10% 50%			
	Fina	l examin	ation								
					written examir	ation (2 tests)	50 30	<u> </u>			
	Tota				01		100	100%			
Web sources	http:	//sf.ues.r	rs.ba/eng/wp-content/u	ploads/2022/05/Engle	ski-NPP-I-ciklus-2021.	pdf					
Applicable from	cable from 16/6/2021 - 175 Session of the Council, Faculty of Transport and Traffic Engineering Doboj										

			UN Faculty S	IVERSITY OF E of Transport ar tudy progra Profile: L	AST SA nd Traffic mme: .ogisti	NRAJEVO c Engineering Traffic cs			A Cart			
ALOR EXCLASION			l cycle			IV year of stu	ldy		V	TOEO1		
Course title		Dana	tmant for Transn	ort Engineer		JSTRIAL LOGIS	STICS	fie E	nainearina	Dahai		
Department		Depai		on Engineer	ing – г					Doboj		
	Code		Coι	irse status		Seme	ster		ECT	S credits		
SAF11SL	07108076	,0320	m	andatory		VII			6.00			
Professor/s	Ph	D Zeljko	STEVIC									
Associates/s			KANOVIC, MSC						Stude	ent workload		
	Weekly	hours		Individ	ual stu	ident hours (pe	r semester)	coefficient S _o			
L	TE		LE	L		TE	LE		So			
3	2	2 - 3*15*1,4=63 2*15*1,4=42 0*15*1,4								1,4		
l otal tea	Cher work	vorkload (hours, per semester) I otal student workload								ester)		
	$\frac{3 15 + 2 15 + 0 15 - 7511}{\text{Total workload: W+T=U_{ov} = 75 + 105 = 180 hours per semester}}$											
Course aims a	1. 1.	planni	ng and organizing	g manufactur	ring or	ganizations,	0011100101					
learning	2.	basics	of industrial syst	ems and ind	ustrial	logistics,						
outcomes	3.	motiva	tion, communica	tion and tear	n work	•						
Prerequisites	No	ne			e							
leaching meth		Lectures, theoretical exercises, consultations										
Course conten	2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15	 Characteristics of manufacturing plans and programs Technologies of basic manufacturing Logistic systems in manufacturing business systems Securing materials Models for optimizing the orders of materials Interoperable transport Midterm test Distribution of raw materials and material flow Management forms of realization of industrial transport process Selection methods of technological solutions within industrial transport Transport means in an industrial logistic system Information systems in a logistic chain activity Logistic support for flexible manufacturing Logistic activities in mass services 										
			. .	Text	book (s	s) 						
Auth	or/s		Nam Industrijska la sis	e of publica	tion, p	ublisher	Ye	ar	Pag	es (trom-to)		
			industrijska logis		al read	linas	20	00		1-213		
Auth	or/s		Nam	e of publica	tion. n	ublisher	Ye	ar	Pag	es (from-to)		
Tihomir Pantelić			Zbirka riješenih :	zadataka sa	izvodir	na iz teorije	20	06		1-174		
			As	ssessment r	netho	ds	•	P	oints	Percentage		
Obligations, evaluation crite	eria	examina al exam	ation obligations		atte	endance - lecture Sei M End-	es/exercises minar paper lidterm test of-term test		10 20 10 10	10% 20% 10% 10%		
						final exam (o	ral / written)		50	50%		
	To	al							100	100%		
Web sources	htt	http://sf.ues.rs.ba/eng/wp-content/uploads/2022/05/Engleski-NPP-I-ciklus-2021.pdf										
Applicable from	n 16	16/6/2021 - 175 Session of the Council, Faculty of Transport and Traffic engineering Doboj										

SUMMER SEMESTER – I CYCLE

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study programme: Traffic Profile: Common course							Contraction of the second seco			
1575 J. 583 30 13			L cycle			Il vear of stu	dv		S	AOEOJ		
Course title			royolo		Or	erations Resea	rch					
Department		Departmen	t for Transp	ort Engineeri	ina - F	aculty of Transpo	ort and Traffic	: Enair	neerina	Doboi		
(Code		Cou	Irse status	<u></u>	Semes	ster	<u> </u>	ECTS	6 credits		
SAF11SZ072022	45,0320		elective			IV		5,00				
Professor/s	Ph	D Željko STE	VIĆ; PhD Si	niša BOŽIČK	(OVIĆ							
Associate/s												
	Weekly h	ours		Individu	ual sti	udent hours (pe	r semester)		Stude coe	ent workload efficient S₀		
L	IE							S₀				
<u> </u>		U 5"15"1,4 2"15"1,4 0"15"1,4 1,4										
	'KIOAO (NOU	Total student workload (nours, per semester) $3*15*1 A \pm 0*15*1 A \pm 105 hours$										
5 15 + 2 15 + 0 Total workload: M	+ $0^{-}15 = 75$ nours $3^{-}15^{-}1,4 + 2^{-}15^{-}1,4 + 0^{-}15^{-}1,4 = 105$ hours											
	V+1-Uopt-	dente should	- 100 1100	iis per seines	SIEI							
Course aims and learning outcom	ourse aims and arning outcomes 1. Optimize engineering problems using linear and integer programming 2. Solve transportation problems 3. Solve location problems 4. Understand the network planning technique 5. Understand the network planning technique 5. Understand the queueing theory and its application in transportation engineering 6. Calculate the parameters of appropriate queuing system models 7. Apply basis medals to real problems									I		
Prereguisites	Nor											
Teaching metho	ds Leo	ectures theoretical exercises debates seminars										
Course content	1. Enclar programming 2. Duality problem 3. Integer Linear Programming 4. Transportation problem 5. Location optimization problems 6. Network planning technique (CPM, PERT, PERT/COST methods) 7. I partial examination and test 8. Game theory 9. Matrix games (graphical and analytical method, linear programming in game theory) 10. Queueing theory and its application in transportation engineering 11. Queuing systems without waiting lines 12. Queuing systems with waiting lines 13. Simulation (Monte Carlo method) 14. Appropriate software application									ory)		
				Textbo	ook (s							
Author/s			Name of p	ublication, p	oublis	her	Yea	r	Pag	es (from-to)		
M. Čupić, M. Sukno G. Radojević, V. Jovanović	ović, Sp Te	ecial chapters chnical Scienc	in decision th es, Novi Sad	eory: quantitat	tive an	alysis, Faculty of	2004	1		1-370		
Authoric			Nome of	Auditional	read	ngs	Var		Dec	oc (from to)		
D. Teodorović	Tra	ansportation ne	etworks, Facu	ilty of Transpor	rt and	Traffic Engineering	, 2007	7	Pag	1-428		
R. Božičković, I. Nil	kolić Op	timization met	hods in trans eering, Dobo	portation proble	ems, F	aculty of Transpor	t 2007	7		1-228		
F.S. Hillier, G.J. Lieberman	Inti Ed	roduction to Op	perations Res	earch, McGra	w-Hill S	Series, Seventh	2001	1		1-1240		
W.L.Winston, M.	Int	Introduction to Mathematical Programming: Operations Research, Vol. 2002 1-1348										
venkataramanan	1,4	un Edition, Th	ompson Lear		nothe	de		Dein	te	Dorcontore		
Evaluation criter	ria Pre Par Fin Ora	examination sts (2) tial examinat al examination al examination	obligations ions (2) n						40 40 20	40 % 40 % 20 %		
	Tot	al						1	00	100 %		
Web sources	httr	://sf.ues.rs.b	a/eng/wp-co	ontent/upload	s/202	2/05/Engleski-NF	P-I-ciklus-20	21.pd	F			
Applicable from	16/	6/2021 - 175	Session of	he Council, F	Facult	y of Transport an	d Traffic engi	ineerir	ig Dobo	i		

A CONTRACTOR OF THE OWNER	UNIVERSITY OF EAST SARAJEVO									
		S	tudy programme	: Traffic		<u> </u>				
			Profile: Logis	tics	udv.	the second	AOEOJ			
Course title		T Cycle	W/		TEMS					
Department	Departm	ent for Transr	ort Engineering –	Faculty of Transp	ort and Traffi	c Engineeri	na Doboi			
Code	Boparan	Co	urse status	Seme	ster	EC	CTS credits			
SAF11SL07107	7565,0320	n	nandatory	VI			6.00			
Professor/s	PhD Željko ST	EVIĆ								
Associates/s	Eldina HUSKA	NOVIĆ, MSc								
Wee	kly hours		Individual s	udent hours (pe	er semester)	Sti	ident workload			
L TE	L	E	L	TE	LE	_	S₀			
Total teacher workloa	d (hours, per se) emester)	3*15*1,4=63 Total	2*15*1,4=42 student workload	0*15*1,4= I (hours, per s	0 semester)	1,4			
3*15 + 2*15 + 0*15 =	75 h		3*15	1,4+ 2*15*1,4+ 0	*15*1,4 = 10	5 h				
	Tota	al workload: V	/+T=U _{opt} = 75 + 10	5 = 120 hours per	r semester					
Course sime and	1. to determ	ne: the place	, role and function	of the warehouse	e in the logisti	cs system;				
learning	 to recognize different types of inventory and apply models for their optimization: 									
outcomes	4. to recogn	4. to recognize the basic characteristics and legality related to processes that are being implemented in								
	warehouses.									
Prerequisites	Intermodal tra	nsport								
Teaching methods	lectures, audit	ory exercises	, laboratory exerci	ses, consultations	<u>.</u>					
	1. The place	and role of the systems	ie warenouse in ci	naracteristic logisi	lics processe	5				
	3. Identificat	ion and analy	sis of the basic su	osystems of the w	varehouse an	d processes	s in them			
4. Analysis of warehouse systems performance										
5. Inventories										
6. warehouse of piece load										
Course content	7. Wildterm t	est of scattered	hload							
course content	9. Warehous	se of liquid loa	id d							
	10. Dimensio	ning the stora	ge system elemen	ts						
	11. Information	n system in v	arehouse system	5						
	12. Safety in	storage syste	ms	ť						
	13. Material r	andling and li	iventory in produc	tion						
	15. End-of-te	m test								
			Textbook	(s)						
Author/s		Name o	f publication, pul	blisher	Ye	ar P	ages (from-to)			
Ilija Ćosić, Željko Stević	Skladišni sist	emi, skripta Sa	obraćajni fakultet Do	boj	20	16				
A 11 1	-	N	Additional rea	dings			(6			
Author/s	Integration of	Name o Simulation and	t publication, pui	Diisner	stems	ar P	ages (from-to)			
Ranko Božičković i dr.	– Case Study	v, Strojniški ve	stnik-Journal of Mec	hanical Engineering	20 g 58.11	12	642-652			
	Mathematica	I model formula	tion in optimal progr	am planning of indi	vidual					
Ranko Božičković	"Trends in th	auction, Titti in Development	of machinery and A	ssociated technolog	e 20	07	423-426			
	TMT 2007, H	ammamet, Tur	isia,		<i></i>					
Ť ot i t	Izbor i merer	je ključnih indil	atora performansi u	skladišnom sistem	u" XIX		004.000			
Z. Stevic	Internacional	ni naučni skup čivanju u strate	SM 2015 Strategijsk gijskom menadžmej	i menadzment i sisi htu. Subotica-Palić	temi 20	15	931-938			
	pourske ouid	A	ssessment metho	ods		Points	Percentage			
	Preexaminatio	n obligations								
				attendan	ce - lectures	5	5%			
Obligations.				attendance	e - exercises	5	5%			
evaluation criteria	Einal avamira	tion		wildterm and End	-ot-term test	2x30	60%			
	rinai examina	UUII		written examinat	tion (2 tests)	60	60%			
	oral examination 30									
	Total			c.u.		100	100%			
Web sources	http://sf.ues.rs	.ba/eng/wp-c	ontent/uploads/202	22/05/Engleski-N	PP-I-ciklus-20	21.pdf				
Applicable from	16/6/2021 - 175 Session of the Council, Faculty of Transport and Traffic engineering Doboj									

WINTER SEMESTER – II CYCLE

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study programme: Traffic Profile: Road Transport and Traffic							A LINK OGF
15 4.589 40 July			II cycle			I year of stu	dy	N	TOPO1
Course title					TR	AFFIC NETWOR	KS		
Department	<u>.</u>	Departmer	nt of Road T	ransport and	d Traffic	- Faculty of Trar	nsport and Tra	ffic Engine	ering Doboj
C	ode		Col	urse status		Seme	ster	EC	TS credits
SAF12SD03	3218316,U) <u>320</u>) Marka M. (lubotió	elective					6
Associate/s	PhL	Dunia Pad	ović Stoičić						
	Weekly h	ours		Indivi	dual stu	udent hours (per	r semester)	Stuc	lent workload befficient S₀
L	TE		LE	L		TE	LE		S₀
3	2		0	3*15*1,4	=63	2*15*1,4=42	0*15*1,4=0		1,4
Total teac	her worklo 3*15 + 2*	bad (hours, p 15 + 0*15 =	per semeste 75	r)		Total student 3*15*1,4	workload (hou + 2*15*1,4 + (urs, per ser)*15*1,4 =1	nester) 05
Course aims and learning outcomes 1. knowledge of terms and definitions of traffic networks 2. acquiring knowledge for analysis, optimization, simulation and evaluation of traffic networks with help of intelligent traffic systems 3. students master certain simulations 4. studentsapply the acquired knowledge in practice									etworks with the
Prerequisites	Nor	ne							
Teaching method	Is Lec	tures, exerci	ses, simulat	tions					
Course content	2. T 3. T 4. B 5. M 6. E 7. F 8. T 9. C 10. 11. 12. 13. 14. 15.	 Travel time models in the city network Travel time research Base matrices IC-based on traffic counting, entropic models, IC matrices derived from transport mode M I and II principles of Wordrop (Wordrop traffic distribution departments) Balance models Flow distribution in complex traffic management systems with and without ISS support The first and second paradox in the distribution of traffic flows Debate - Traffic networks, types, regulations Tasks -Expected effects, models of traffic distribution on the network Debate - Wordrop's principles Tasks - traffic distribution Tasks - determining IC matrices based on traffic counting Debate-First and second paradox, investments, valuation Using different distribution models determine the effects of the traffic management system 							
Author	r/s		Name	of publica	tion, pu	ublisher	Year	Pa	ges (from-to)
Вукановић С.:		Саоб	раћајне мр	еже I, Саоб	раћајни	и факултет	2000.		-
				Addition	al readi	ngs			
Author	r/s		Nan	ne of public	cation,	editor	Year	Pa	ges (from-to)
		Iraffi	c Eng. Hand	IDOOK Prent	ice Hall		1990	Delate	-
	Dro	ovamination	A	ssessment	t metho	as		Points	Percentage
	Fle	-examination	robligations				attendance	5	5%
						activity du	iring classes	5	5%
						Serr	nestral paper	20	20 %
Evaluation criteri	a					Ν	Aidterm Test	20	20 %
						End of t	he Term test	20	20 %
	The	The final exam							
		Final exam (oral)					l exam (oral)	30	30 %
	TO	IAL	, .		1 10 0 0			100	100 %
Web sources	http	://st.ues.rs.b	a/eng/wp-co	ontent/uploa	ds/2024	4/01/Engleski-NP	'P-II-ciklus.pdf		aina aring i-
Applicable from	19. Dot	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering in Doboj							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study programme: Traffic Profile: Road Transport and Traffic Il cycle I year of study									
Course title	<u> </u>		DE	TERMINIST		DELS OF OPERA	ATIONAL RE	SEA	RCH		
Department		Dep	artment of Road T	ransport an	d Traff	ic- Faculty of Tran	sport and Tra	affic E	Engineeri	ing Doboj	
	Code		Сог	urse status	;	Semes	ster		ECTS	S credits	
SAF12SD0)3218416,0)320		elective						6,0	
Professor/s	PhD) Željk	o Stević								
Associate/s	PhD) Željk	o Stević								
	Weekly h	ours		Individual student hours (per semes			r semester)		Stude coe	ent workload efficient So	
L	TE		LE	L	L TE I					So	
3	2	. ,	0	3*15*1,4	=63	2*15*1,4=42	0*15*1,4=	0		1,4	
Total tea	2*15 + 2*	oad (h 15 ⊥ 0	ours, per semeste 1×15 – 75	r)		Total student	workload (h	0Urs, . 0*15	per seme	ester) 5	
	J 1J + Z	13 + 0	Total workload: W	+T=1 lost= 7	5+105:	= 180 hours per se	<u>+ 2 13 1,4 +</u> mester	010	7 1,4 - 10	5	
	1.s	electio	on of type of mathe	ematical mo	del for	given optimization	n tasks				
	. 2. s	olving	ramming								
Course aims and	3 . p	3. performing sensitivity analysis to changes in input parameters									
learning outcom	es 4. o	4. observing the advantages and disadvantages of deterministic models of OR									
	5. n	nonito	ring the performan	ce of traffic	syster	ns					
Prerequisites	Nor	one									
Teaching metho	ds lect	lectures, auditory exercises, laboratory exercises, consultations									
1. Modeling of practical tasks with models of linear and integer programming 2. Sensitivity analysis 3. Application of appropriate softwares 4. Duality 5. Economic interpretation of dual variables 6. Case studies 7. Midterm test 8. Scheduling of workers and resources 9. Multi-stage transport tasks 10. Dynamic models 11. Nonlinear programming 12. Optimization of functions of one and more variables without and with constraints											
	13.		cations in traffic an	d transport	to coff						
	14.	End-c	alion, application c if-term test		10 3011	wale					
	10.			Texth	book (5)					
Autho	or/s		Name	of publica	tion, p	oublisher	Yea	r	Pag	es (from-to)	
F.S. Hillier, G.J. Lie	berman		Introduction to Op Seventh Edition	perations Re	esearch	, McGraw-Hill Seri	es, 2001			1-1240	
W.L. Winston, M. Venkataramanan	Introduction to Mathematical Programming: Operations 2002. 1- Research, Vol. 1, 4th Edition, Thompson Learning						1-1348				
			A	ssessment	meth	ods		Poi	nts	Percentage	
	Pre	-exam	ination obligations			0		<u> </u>	20	00	
Evoluction or the						Ser	Tooto (2)		20	20	
Evaluation criter	Id Eine		mination				rests (2)		40	40	
	Fille	Final examiniduun							10	10	
	то							100	100		
Web sources	http	.//cf ⊔	es rs ha/eng/wn-co	ontent/unlos	ads/201	24/01/Engleski_NP	P-II-ciklus n	l -lf	100	100	
Applicable from	19.1	10.202	2 213th session	of the Acad	lemic (Council. Faculty of	Transport ar	nd Tra	affic Engi	neering Doboi	

			UNIVE Faculty of	ERSITY OF	EAST S and Trat	SARAJEVO			A TAJIHH WART		
			S Profile Il cvcle	e: Road Tra	amme: insport	and Traffic	iv	F	A060J		
Course title				TELE		SYSTEMS IN RO		C			
Department		Departme	nt of Road T	ransport an	d Traffic	- Faculty of Trar	nsport and Tr	affic Engin	eering		
	Code		Co	urse status		Semes	ster	EC	TS credits		
SAF12SD0)3218516,0	320		elective					6		
Professor/s	PhL) Vuk Bogd	anović, Full I anović, Full I								
Associate/s	PhL) vuk Boga	anovic, Fuil F	rotessor				Stu	ident workload		
	Weekly h	ours	16	Individ	dual stu	Ident hours (per	semester)	0.0	coefficient S₀		
3	2		0	3*15*1.4:	=63	2*15*1 <u>4</u> =42	0*15*1 4=	0	1 4		
Total tea	cher worklo	ad (hours.	per semeste	r)	00	Total student	workload (ho	ours, per se	emester)		
	3*15 + 2*	15 + 0*15	= 75	,		3*15*1,4	+ 2*15*1,4 +	0*15*1,4 =	105		
		Total	workload: W	/+T=U _{opt} = 7	5+105=	180 hours per se	emester				
1. knowledge of concepts and definitions of intelligent transport systems											
Course aims and	d 2.1	ntroducing	students to t	ne performa	ance of	intelligent transp	ort systems	(its) that ar	e used to support		
learning outcomes											
	4. apply the acquired knowledge in practice1.										
Prerequisites	Nor	None									
Teaching metho	ds Lec	Lectures, interactive workshops, case studies, team presentations									
	1. Intelligent transport systems – Introduction										
2. Basic models and ITS											
	4.1	ransport no	architecture	10							
	5. F	ossible ITS	applications	, Taxonomy	/						
	6. T	raffic mana	gement - tra	ffic distributi	on and	application of ITS	6				
	7. 5	ystems des	signed for sat	fe traffic			•				
Course content	8. S	ensor and	ad-noc netwo	orks for traff	IC MONIT	oring and regulat	ion				
	10.	Vehicle-vel	nicle (V2V) a	nd vehicle-ir	nfrastruc	cture (V2I) comm	unications				
	11.	Vehicle loc	ation and nav	vigation syst	tems						
	12.	Electronic p	payment syst	ems							
	13.	Application	of public bro	adcasting s	ystems	(RDS, DAB) in tr	affic				
	14.	Use of pub Considerat	ic fixed and i	mobile netw	orks in i	road traffic					
	15.	Considerat		Texth	ook (s)						
Autho	r/s		Name	of publica	tion, pu	ıblisher	Yea	ar P	ages (from-to)		
M A Chowdhury	A Sadak	Funda	mentals of	Intelligen	t Tran	sportation Syst	ems 200	3	-		
		Planni	ng, Artech H	ouse			200	J.	-		
R. Bishop:			ent Vehicle	l echnology	and Tre	nds, Artech Hous	se 200	5.	-		
B. McQuin, R. Schu	man, K. Che	n: Advan	ced Traveler	Information	System	IS, ARTECH HOUSE	200	2.	-		
о. рукановин.		гинсу	друмском С	Addition	al readi	nas	201	2.	-		
Autho	r/s		Nar	ne of public	cation,	editor	Yea	ar P	ages (from-to)		
									- · ·		
			A	ssessment	metho	ds		Points	Percentage		
	Pre	-examinatio	n obligations	5			otton dara	00	00.0/		
						activity dur		20 20	20 %		
			activity during classes						20 %		
Evaluation criter	ria					N	lidterm test	10	10 %		
			End-of-term test					10	10 %		
	The	final exam									
						Final	exam (oral)	20	20 %		
Mah	TO	I AL	heler		de /000			100	100 %		
Applicable from	nttp	.//ST.UES.IS.	ua/eng/wp-co	ontent/uploa	ius/2024	+/∪1/Engleski-NP	Transport o	ll nd Traffic E	ngineering Doboi		
Applicable IIOIII	19.	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering Doboj									

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Road transport and traffic II cycle I year of study TERMINALS AND PARKING							oj		A Care		
Course title						TERN	INALS AND PAF	RKING				
Department	0.1	Roa	ad Traffic	and Transp	ort - Faculty	of Trans	port and Traffic Eng	ineering Dob	oj	507	0	
SAE12SD(Code	0311		Co	urse status	6	Semes	ter		ECI	6 00	
Professor/s	Pr	D Boi	an Marić	. Associate	e Professor		1 1		1		0,00	
Associate/s	Ph	D Dur	nja Rado	vić Stojčić	_							
	Weekly	nours	Т		Indivi	dual st	udent hours (per	⁻ semester)		Stud co	ent workload efficient S₀	
L	TE			<u>LE</u>	L	<u> </u>	TE	LE	S₀			
X Total tea	t cher work	load (I	hours n	<u> </u>	X 15"3	50	Total student	Z"15"So workload (h		ner sen	nester)	
X'	*15 + Y*1	5 + Z*'	15 = W	hours	<i></i> ,		X*15*S₀ +	W01Kl0au (1 Y*15*S₀ + Z	2*15*S	$_{\circ} = T h$	Durs	
	-	-	Total	workload:	W+T=U _{opt} =	+ =	hours per sen	nester		•		
Course aims and learning outcomes 1. quantities the requirements of terminal users by categories, 2. optimizes the conceptual and technological solution of the terminal depending on the technological process that takes place in the terminal, 3. defines the criteria for the selection of the location of the terminal depending on the state of the transport system of the city, 4. quantifies the requirements for parking in a certain zone or city depending on the degree of attractiveness, 5. defines the strategy of parking management in the city, populated area or urban zone.									gical process that ransport system of ctiveness,			
Prerequisites	Do	es not	have	0,	0 0		2.1					
Teaching metho	ds Le	ctures,	tutorials,	seminar pa	per, fieldwork	k, case s	tudy					
Course content	 2. Defining the location and role of the terminal in the transport process 3. Optimization of the structure and capacity of the terminal in accordance with the technological process that takes place in the terminal 4. Logistic approach in terminal design and influence on the rational structure of the transport system 5. Parking management strategy 6. Planning of parking needs in accordance with the degree of attractiveness of the zone 7. Ways to solve parking problems 8. Street parking 9. Off-street parking 10. Parking lot 11. Garage parking 12. Parking garage equipment 13. Logistic approach in terminal design and impact on the rational structure of the transport system 14. Preparation of a case study for terminals 									process that takes m		
					Text	book (s)					
Autho	or/s		Derking	Nam	e of publica	ation, p	ublisher	Yea	ar	Pa	ges (from-to)	
Nada Milos	avljevich		Belgra	y, racuity de	UT Transpo	nt and	rranic Engineerii	^{'y,} 201	0.		1-165	
			<u> </u>		Addition	al read	ings					
Autho	or/s		Name	of publica	ation, publi	sher		Yea	ar	Pa	ges (from-to)	
Todd Li	tman		Parking	g Managem a Transport	ent: Strategi Policy Institut	ies, Eva te	luation and Plannii	^{ng,} 201	6.		1-31	
Kostic, S., Davidov	/ić, B., Pap	ić, Z.	Road t	raffic termin	als, FTN Nov	ri Sad	litica in secol (201	3.		1-214	
Nada Milos	savljevic		transpo Belgrad	orts for techn ort, Faculty de	ological desig of Transpo	ort and	Traffic Engineeri	ng, 200	3.		1-127	
	D-		obligation	anc .	Assessment	method	Is		Poir	nts	Percentage	
		-exall	roongauc	715		2	ittendance - lecture	s / exercises	10		10%	
					pos	sitively a	ssessed. paper / pr	oject / essay	20		20%	
							case study	- group work	/		/	
Evaluation criteria							laboratory work / la	test h exercises	/0		/0%	
							p	ractical work	/		/	
	Fir	al exa	m									
	TO						final exam (o	oral / written)	100		100%	
Web sources	htt	0://sfu	es.rs.ha/e	ena/wn-cont	ent/unloads/2	2024/01/	Engleski-NPP-II-cik	lus.pdf	100		100 /0	
Applicable from	19	.10.202	23 - 213th	session of	the Academi	c Counci	I, Faculty of Transp	ort and Traffi	c Enair	neerina	Doboi	

A J WCTONHO			UNIV	ERSITY OF EAST	SARAJEVO		5	2005	
	22		Faculty of Tr	ansport and Traffi	c Engineering Dob	poi	5 100	A THE A	
- Xijc			Study progra	amme: Traffic Pro	ofile: Railway trat	ffic	H		
			II cvcle		l vear of stu	dv	the	4060J	
Course title		HIGH-SPEED TRAIN SYSTEMS							
Department		Depa	rtment for Transpo	ort Engineering – F	aculty of Transpo	rt and Traffic	Engineering	Doboi	
(Code		Co	urse status	Seme	ster	ECT	S credits	
SAF12SŽ0311951	6,0320		mandatory		l		6.00		
Professor/s	PhD	Ratko	Duričić, Full Profe	essor	•				
Associate/s	Vladi	mir M	lalčić, Senior Assis	tant					
	Weekly h	ours		Individual s	student hours (pe	er semester)	Stuc	lent workload efficient So	
L	TE		LE	L	TE	LE		So	
3	2		0	3*15*1,4=63	2*15*1,4=42	0*15*1,4=0	1,4		
Total teacher work	load (hours	, per	semester) 3*15 + 2	2*15 + 0*15 Total	student workload	(hours, per s	emester) 3*1	5*1,4 + 2*15*1,4	
= 75 hours		75	405 4001	+ 0*1	5*1,4 = 105 hours				
I otal workload: W-	+I=Uopt =	/5 + '	105 = 180 hours pe	er semester					
	By m	asteri	ing this course stud	dents will be able i	0:				
Course aims and	yer a analy	cquai ze th	eir technical and a	eu irains, erodynamic chara	cteristics				
learning outcome	s inder	ende	ently work on the co	onstruction of high	-speed trains as v	vell as perfor	mance calcul	ations	
ioug outoonie	kiner	natics	and dynamics.	inea acairm or high				ationo,	
	simu	ating	high-speed train n	novements as wel	as self-guiding cu	urtain sets			
Prerequisites	None)							
Teaching method	s Lectu	ires, a	auditory exercises,	consultations.					
	Basic	Basic requirements and basic performance of high-speed train sets and track design							
Technical and aerodynamic characteristics of diesel-engine sets of high-speed trains, electro-motor sets									
	Sets	with s	elf-loading box	atically lavitation					
	Com	; cnar	systems	letically-levitation	sei				
Signaling systems									
	Teleo	comm	unication systems						
Course content	Secu	rity sy	ystems for the safe	ty of the route					
	Туре	s and	characteristics of	traction engines					
	Linea	ar eng	jines						
	Num	erical	analysis and simu	lation of high spee	ed gear sets				
	Dete	rmina	tion and baseline of	calculation of basic	c aerodynamic effe	ects during th	e movement	of nign- speed	
	Calc	, Instion	of kinematic and	dynamic performa	Inces				
	Simu	lation	of self-assembly of	of sets in the curve	11003				
	Dime	nsion	ing of stable electr	ic power train unit	s of high-speed tra	ains and trac	tion electric m	otors	
	Linea	ar eng	ine calculation	•	U 1				
Textbook (s)									
Author/s			Name of publication	on, publisher		Year	Pages (from-to)	
Rusov S.			High speed trains,	authorized CD,Fa	iculty of Transport	and 200	8		
				j, Belgrade	ada		Dointo	Doroontogo	
	Pro-6	vam	obligations	ssessment meth	ous		Foints	Fercentage	
		dance					10	10%	
	Posit	ively (evaluated seminar	naner			20	20%	
	Proie	ct pre	esentation	papoi			20	20%	
	Exam/tests 20 20%								
Evaluation criteri	a								
	Labo	ratory	/ work-practice						
	Pract	ical w	vork						
	Final	exam	ı						
	wrrite	en 🗌					15	15%	
	oral						15	15%	
	Total					5 H - 11 - 11	100	100%	
Web sources	http:/	/sf.ue	s.rs.ba/eng/wp-coi	ntent/uploads/202	4/01/Engleski-NPI	<u>II-ciklus.pdf</u>	<u> </u>		
Applicable from	19.10	.2023	- 213th session of the	ne Academic Counc	il, Faculty of Transp	ort and Traffic	Engineering D	oboj	

	UNIVERSI Faculty of Transp	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Railway traffic Il cycle I year of study SELECTED CHARTERS EROM THE TENNOLOCY FOR THE EXPLOITATION OF RAIL WAY								
Course title	SELECTED CHAP	TERS FROM THE TE	TRAFFIC		HON OF RA					
Department	Transport Engineering – F	aculty of Transport a	nd Traffic Engine	ering Doboj						
Code	Co	ourse status	Semes	ster	ECT	S credits				
SAF12SZ03219616,03	11 electiv	ve 1			6.00					
Protessor/s	Ind Branislav Boskovic, Full Pro	otessor t								
					Student workload					
Weekly hours		Individual st	udent hours (per	semester)	coe	fficient So				
L TE			TE			So				
Total teacher workload (hour = 75 hours	rs, per semester)3*15 + 1*15 +	1*15 Total stud 1*15 Total stud 1*15*1,4	15°1,4 dent workload (ho = 105 hours	urs, per semeste	er)3*15*1,4 +	1,4 1*15*1,4 +				
Course aims and	raining of students for the appl	+1-00pt = 75 + 105 =	nds and models for	or determining th	ne nermeahili	ty and transport				
learning outcomes	apacity of the railways, station	is and railway systems	in general.			ty and transport				
Prerequisites A	Attendance, homework, tests, se	elf-study, consultations.	Jerreren							
Teaching methods	eaching takes place in the form	n of lectures, auditory e	xercises. Learning	g, tests, tasks ar	nd consultatio	ins.				
Course content	 Planning the development of terminal capacities Planning work technology in railway stations Planning of terminal technology Planning work technology on industrial tracks Modern technologies of organization of rail freight traffic Planning of passengers transport on railway Modern technologies of organization of passenger transport Techno-economic evaluation and evaluation of investment projects on the railway Quality of transport services Optimization of the development of the structure of the freight wagon park of the railway Models of train formation Methods for improving the utilization of freight wagons through demand prediction 									
Author/s	Nan	ne of publication, pub	lisher	Year	Pa	aes (from-to)				
Cičak M. Vesković S.	Organization of Raily	way Traffic, Belgrade		2006						
Čičak M. Vesković S. Čičak M. Vesković S. Madenović S.	Organization of Raily Faculty of Transport Models for determini	way Traffic, a collection and Traffic Engineering ng the capacity of the r	of solved task, <u>, Belgrade</u> ailway, Faculty of	2002						
	Δeeeement m	engineering, beigiaue			Points	Percentage				
F	Preexamination obligations				i onito	i oroentage				
	Attendance - lectures 5 5%									
Evaluation criteria			Se	eminar paper	25	25%				
			Midterm and End	d-of.term test 2	x15	30%				
Ē	inal examination				10	400/				
=	[oto]		Oral	examination	40	40%				
			/ -		100	100%				
Web sources	http://st.ues.rs.ba/eng/wp-cor	ntent/uploads/2024/0	1/Engleski-NPP	-II-ciklus.pdf	ala antes - D	a hai				
Applicable from	9.10.2023 - 213th session of t	ne Academic Council, I	-acuity of Transpo	on and Traffic Er	igineering Do	נסטנ				

-18-	C. YE	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj					E				
Study programme: Traffic Profile: Railway traffic II cycle I year of study											
Course title		WORK THEORY OF RAILWAY NETWORK OPERATOR AND TOWING ORGANIZATION									
Denartment		Trans	nort Engineering	Faculty of Transno	ort and Traffic Eng	ineering Dob					
Code		India		urse status	Semes	ster	رم ا	ECTS credits			
SAF12SŽ03219716.	0311		Electiv	ve 1			6.	00			
Professor/s	PhD F	redrag	Jovanović, Associate	Professor	- I						
Associate/s	PhD F	redrag	Jovanović, Associate	Professor							
Weekly	hours			Individual s	tudent hours (pe	r semester)	SI	udent workload coefficient S ₀			
L	TE		LE		TE			L			
3	1										
l otal teacher workload	(nours, per s	ber semester)3*15 + 1*15 + 1*15 = 75 [Total student workload (hours, per semester)3*15*1,4 +									
nours		$\frac{ ^{1}15^{1},4 + ^{1}15^{1},4 = 105 \text{ nours}}{\text{Total workload: W+T=Lost = 75 + 105 = 180 hours per semester}}$									
	By ma	I otal workload: W+I=Uopt = /5 + 105 = 180 hours per semester									
	1.	aet acc	quainted with the basic	s of restructuring and c	leregulation of the rail	wav svstem:					
Course aims and	2.	calcula	ites the turnover of loco	omotives and calculate	the rotation of rolling	stock;					
learning outcomes	3.	 allocates costs from the spectrum of operators and infrastructure managers; 									
	4.	 get acquainted with the multi-criteria approach and the calculation of fees for the use of railway infrastructure. 									
Prerequisites	None	None									
Teaching methods	Lectur	Lectures, auditory exercises, consultations.									
	1.	1. Basic concept, principles and laws in railway traffic.									
	2.	2. Restructuring and deregulation of the railway system.									
	3.	Princip	ves and concepts of rai	nway tranic organizatio	1). Fwork and use of freid	t and nanana	or ooro on	d locomotivo porko			
	4.	Leyalli	otive trade. Owning a l	ocomotive Turnus of c	riving staff	int and passeng		u locomotive parks.			
	6	Train c	costs from the aspect o	f operators and infrast	ucture managers						
	7.	New a	pproaches and techniq	ues in the maintenance	e of railway vehicles.						
Course content	8.	Impact	of train delays and tim	netable disruptions on t	he operator and infras	tructure manage	er.				
	9.	Fees a	is an element of railway	y market regulation.	·						
	10.	Harmo	nization of individual in	dicators of the railway	subsystem.						
	11.	Harmo	nization of individual ra	ilway subsystems							
	12.	Eleme	nts for determining fees	s for access to and use	of railway infrastructu	ire.					
	13.	Multi-c	riteria approach to the	choice of methods for	determining the amoui	nt of compensati	on.				
	14.	Discus	sion of the applied met	hods of calculation of 1	ees in certain countrie	S.					
	10.	Preser	nation of project work.	Taxtback (c)							
Author/s			Name of nublicati	ion nublisher		Vear	Pag	es (from-to)			
Autions			Train towing organ	ization. Faculty of	Transport andTraff	iC	i ay				
Mandić D.			Engineering, Belgra	de		2002					
Dinić D.			Vuča Vozova, Zavoo delatnost JŽ, Beogra	l za novinsko-i <mark>zda</mark> vao d	ku ipropagandnu	1983					
Kovačević P.			Eksploatacija železni delatnost JŽ, Beogra	ica knjiga I i II, Zavoo d	I za NIP	1988		_			
			Assessment m	ethods			Point	ts Percentage			
	Pre-ex	am ob	ligations		A11	I(10	100/			
					Attend	ance - lectures	10	10%			
	Positively evaluated seminar paper 20 20%										
Evaluation critoria					Projec	Exam/toot	20	20% 20%			
					Labaratory	Work-practice	20	20%			
					Labaratory	Practical work					
	Final	xam									
	i inal e	Mun				wrriten	15	15%			
						oral	15	15%			
	Total					Ju	100	100%			
Web sources	http://	sf.ues	.rs.ba/eng/wp-conter	nt/uploads/2024/01/F	ngleski-NPP-II-ciklu	s.pdf					
Applicable from	19.10.	2023 -	- 213th session of the	Academic Council, Fac	ulty of Transport and	Traffic Engineeri	ng Doboi				
						~	- /				

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		Faculty of T	ransport and Traffic	Engineering Doboj		5 Stan	- ANA		
► YNC E	Study programme: Traffic Profile: Railway traffic								
		H L	Profile: Railway t	raffic		1 L	DEDI		
0. 672				I year of study					
Course title	PLAN	NING AND DESIGN O	F RAILWAY LINES	Troffia Engineering Deb					
Code	ITalis		uity of fransport and		tor	FC	S cradite		
SAF12SŽ03219816 0311		Electiv		- Ocilies		6.00	o creans		
Professor/s P	nD Miloš Iv	vić, Full Professor				0.00			
Associate/s	adimir Mal	čić, Senior Assistant	-						
Weekly heuro			Individu	al atudant haura (nar (nomentar)	Stude	ent workload		
		1 10	inaiviau			COE	fficient So		
2 IE	1	1	L 3*15*1 /	1*15*1 /	LE 1*15*1 /		30		
Total teacher workload (hours in	ı er semest	er)3*15 + 1*15 + 1*15 :	= 75 Total	student workload (hours	ner semester)	3*15*1 4 + 1*15	*1 4 + 1*15*1 4		
hours	or comod		=105	hours	, per semester)	0 10 1,4 · 1 10	1,7 . 1 . 10 1,7		
Tota	l workload	: W+T=Uopt = 75 + 105	5 = 180 hours per se	emester					
B	/ mastering	this course, the studer	nt will be able to:						
Course aims and	1. partic	ipate in the preparation	of spatial plans,						
learning outcomes	2. partic	ipate in the preparation	of planning and des	sign documents,					
J	3. partic	ipate in the evaluation of	of different railway lii	ne alignment s,					
т	4. evaluate the project documentation.								
	I ne conditions for passing the course are:								
Prerequisites	 completed and defended elaborate. 								
	3. all tests passed.								
Teaching methods Le	ectures, auditory and computational exercises, consultations								
	1. Track constructive elements.								
	2. Basic characteristics of railway tracks and their constructive elements								
	3. General settings on the planning and design of railway lines								
	4. Types and characteristics of spatial plans								
	5. Gener 6 Horizo	al pilliciples of design. Intal alignment design	(Midterm test)	esign of railway lines					
	7 Vertica	al alignment design							
Course content	8. Railwa	av line cross sections - (desian						
	9. Final r	ailway line geometry de	esign						
	10. Bill of	Quantities	-						
	11. Metho	dology for railway line desi	ign						
	12. Conte	nt and characteristics of	f project documental	tion					
	13. Railwa	ay line reconstruction							
	14. Condii 15. Evolus	tions for designing other	r rail systems (tram i pment s (End-of-ter	ines, metro lines, nign sj m test)	peed rails)				
		Textbook (s		in test)					
Author/s		Na	me of publication,	publisher	Yea	r Pa	iges (from-to)		
luić M		Railway tracks, Faculty	of Transport and T	rafficEngineering, Belg	rade 2005	;			
		Basics of railway line d	lesian Faculty of Civ	ilEngineering Relared	2000				
lvi Popović, Z. ć. M					2004	ļ			
lvić M., Kosijer M.		Railway tracks -workbo	ook ⊦aculty of Trans	port and I raffic	1009	3			
· · · · · ·		Engineering, Belgrade			1990	, I			
Author/s		Additional read	lame of publication	editor	Yea	r Ps	ges (from-to)		
lvić M.		Railway line desian. Le	ectures in the form of	f PPpresentations	Cu	10			
		Assessment m	ethods			Points	Percentage		
P	Preexamination obligations								
	I he student's activity during lectures 5 5%								
F . I . (I					Elaborate	30	30%		
Evaluation criteria	lests 15 15%								
		-tion			Colloquiums	30	30%		
F1	nai examir	Iation		<u>^</u>	al avamination	20	200/		
Т	otal			Ura	ai examindliun	100	100%		
Web sources	to://sf ues	s.rs.ba/eng/wp-conter	nt/uploads/2024/01	/Engleski-NPP-II-ciklu	is.pdf		10070		
Applicable from 10).10.2023 -	213th session of the A	cademic Council F	aculty of Transport and T	Fraffic Engineeri	na Doboi			
						J = •J			

ALC: Y HETCHIC			Fa	UNIVERS	ITY OF EAST SARA	JEVO eering Doboj			Stant.	005 JUHN @afre	
				Stud	y programme: Traffi	c			ff(_	之用	
210K5 4.5K9 40 45			ll cyc	le		l year of study	1		1 St	ДОБОЈ	
Course title		SELECT	TED CH	IAPTERS FR	OM THE TRANSPOR	T OF PASSENGERS	BY RAIL				
Department		Iranspo	rt Engir	neering – Fac	ulty of Transport and	I raffic Engineering Dot	00j		ECT	S orodito	
54F12S70321991	6 0311			electiv	purse status	Semes	ster		6.00	5 creaits	
Professor/s	0,0011	PhD Ratk	ko Đuri	čić, Full Profes	sor			1	0.00		
Associate/s		Vladimir I	Malčić,	Senior Assista	ant						
Weekly I	nours				Individua	I student hours (per	semester)		Stude coe	nt workload fficient S₀	
L	TE		LE	÷	L	TE	LE			L	
3 Total teacher workload	1 (hours, per s	semester))3*15 +	1 1*15 + 1*15 :	3*15*1,4=63 = 75 Total s	1*15*1,4=21 tudent workload (hours	1*15*1,4=21 , per semester)	3*15*1	.4 + 1*15*	1,4 1,4 + 1*15*1,4	
hours	(,		= 105 hours Total workload: W+T=U _{oot} = 75 + 105 = 180 hours per semester								
		Bv maste	erina thi	s course the s	student will be able to:		3(6)				
•		1. to (aet aco	uainted with t	he basic concepts of	passenger transport:					
Course aims and learn	ning	2. org	janizes	passenger tra	ffic;						
outcomes		3. ma	3. make timetables and calculate elements for timetables;								
D		4. cal	culate t	he cost of pas	ssenger traffic.						
Prerequisites		None	auditor	v and laborate	ry overeiges concult	tions					
reaching methous		1 Rad	tures, auditory and laboratory exercises, consultations								
		2. Fac	Basic concepts of passenger transport. Purpose and categories of travel Eactors of choice of mode of transport								
		2. Factors of choice of mode of transport 3. Basics of passenger transport planning									
		4. Org	ganizati	on of passen	ger traffic						
		5. Use	e of pa	ssenger car p	ark						
		6. Ca	Iculatio	n of the requir	ed number of train cro	ew					
		7. Rai	il syste	ms for mass p	assenger transport						
Course content		8. Pas	ssenge	r station techr	iology						
		9. III 10 Elo	netable	35 for moking tim	otoblog						
		10. Ele 11 Tar	riff nolic	v Tariff syste	ielduies ms						
		12 No	rmative	work in pass	enger traffic						
		13. Co	sts of p	assenger traff	ic						
		14. Qu	ality of	services in pa	ssenger traffic						
		15. Info	ormatio	n system in pa	assenger traffic						
		h1			Textbook (s					()	
Author/s		N	ame of	publication,	publisher	f Transportend Traffic	Year		'ages (fro	om-to)	
Чичак М., Весковић С.			Jrganizi	ation of Railwa	ay Iranic II, Faculty (or transportand traffic	2006	5			
		LI "(Collectic	ing, University	isks" Faculty of Trans	nort and Traffic					
Чичак М., Весковић С.		Er	naineer	ina. University	of Belarade		2006	6			
		L	0		Additional read	ings		1			
Author/s		Na	ame of	publication,	editor		Year		ages (fro	om-to)	
				Assessment	methods			Point	¢	Percentage	
		Pre-exam	n obliga	tions	Inclicus	A.()			5	1 0100111090	
						Atten	dance - lectures	10		10%	
						Positively evaluate	d seminar paper		5x10	30%	
Evelveti i i						Projec	t presentation	30		30%	
Evaluation criteria							Exam/test				
						Labaratory	work-practice				
		Finel					Practical work				
		rinai exa	111				oral	20)	30%	
	Total 01al 50 50%										
Web sources		http://sf	ues.rs	ba/eng/wn-c	ontent/uploads/202	4/01/Enaleski-NPP-II	-ciklus.pdf	10		10070	
		10 10 201	2 _ 213	th spession of	the Academic Counci	Faculty of Transport	and Traffic Engl	neorin	n Dohoi		
Applicable from		10.10.202	<u>-</u> . · ∠ I.			, adding of transport			, 5000		

A NOTO INC		F	UNIVE aculty of Tra	ERSITY OF EAST	SARAJEVO	ni		- Stan	AJHH QAR		
		1	S	study programme	: Traffic	<u> </u>		HI	N FH		
				Profile: Railway	traffic			the	AOEOJ		
Course title					I year of stud						
Course title		Denartment	for Transpo	ort Engineering - F	CINI THE TRANSP	rt and Traff	ic En	DI KAI	n Doboi		
Code		Department	Co	urse status	Seme	ster		ECT	S credits		
SAF12SŽ03220	0116,031	1	Electi	ve 2				6.00			
Professor/s	PhD	Branislav Bo	sković, Full	Professor	I		1				
Associate/s	Vladi	mir Malčić, S	Senior Assis	tant							
Weekly	hours			Individual	student hours (pe	r semester)		Stude coe	ent workload efficient S₀		
L	TE	LE		L	TE	LE			L		
<u>3</u> Tatal ta ash an usadd	1		1	<u>3*15*1,4=63</u>	1*15*1,4=21	<u>1*15*1,4=2</u>	1		1,4		
1 otal teacher worki	oad (nours	, per semes	ter)3°15 + 1	15 + 10tal	Student Workload (nours, per s	emes	ter) 3° 15'	^1,4 +		
1 15 - 75 Hours		Total w	vorkload: W-	T=11000 = 75 + 10	$\frac{1,4+1}{5}$ = 180 hours per 9	emester					
	Bv m	astering this	course stud	dents will be able	to:						
	1.	get acquaint	ed with the	basic concepts of	transport of goods						
	2.	organize the	e transport o	f goods;							
Course aims and	3.	organize the	e transport o	f dangerous good	s;						
learning outcome	s 4.	calculate the	e costs in th	e transport of goo	ids as well as to ca	lculate the ti	ansp	ort and t	ransport		
	5	capacities i	the constru	sport of goods;	ty tariffe:						
	6.	 participate in the construction of commodity tariffs; apply the acquired knowledge in practice 									
Prerequisites	Non	o. appry the acquired knowledge in practice.									
Teaching methods	s lectu	ectures, auditory and calculation exercises, consultations									
	1. 2.	 Basic concepts of transport of goods Organization of transport of goods 									
	3. 4.	Planning the Train format	e volume of t ion	transport of goods	5						
	5.	Modern con	cepts in the	transport of goods	s by rail						
	6.	Transport of	dangerous	goods							
0	7.	Intermodal t	ransport in r	ailway transport							
Course content	8. 0	Pegulations	special con	isignments	ail						
	9. 10	Costs in the	transport of	ands	dii						
	11.	Calculation	of traffic and	transport capacit	ies for transport of	aoods					
	12.	Construction	n of commod	lity tariffs		0					
	13.	Infrastructur	e costs								
	14.	Quality of se	ervices in fre	ight transport	1.						
	15.	Information	system in th	e transport of goo							
Author/s		Name	of publicat	ion nublisher	(5)	Year		Pages	(from-to)		
Örret Menter in	0	"Railwa	av Traffic O	rganization II", Fa	culty of Transport a	nd ooc	~	. ugee (
Cicak M., Veskovic	S.	Traffic	Éngineering	, University of Be	lgrade	200	6				
	Dro	As:	sessment n	nethods			Poi	nts	Percentage		
	Pie-e	exam obligat	IONS		Attenda	nco locturo	1	0	10%		
Evaluation criteria		Allendance - recluies 10 10%									
		Project presentation									
					Exam/	colloquium	3	0	30%		
					Labaratory w	ork-practice	L				
					Pr	actical work					
	Final	exam									
					Final exa	am(verbally)	4	0	40%		
Web environment	In tot	al Vef		and a set from the set of	10004/01/5		<u> 1</u> (JU	100%		
Applicable from	10.10	<u>//ST.UES.rS.t</u>	<u>pa/eng/wp-</u>	content/uploads	<u>/ZUZ4/UI/Englesk</u>	<u>II-INPP-II-CI</u>	<u>(IUS.</u>)0T Hio ⊑rrain	pooring Data:		
Applicable from	19.10	J.ZUZ3 Z13	our session	ui trie Academic (Jouricii, Faculty of	rransport an	u irai	IIC ENGI	leening Doboj		

			UNI Faculty of	VERSITY OF EAST Transport and Traff	SARAJEVO c Engineering Doboj		5	12005 14 ha JIHH @day	
				Study programme Profile: Logi	e: Traffic stics I vear of stud	v	F	4060J	
Course title		PLA	NNING AND DESI	GN OF LOGISTICS	CENTERS	1			
Department		Depa	artment of Transpo	rt Engineering - Fac	ulty of Transport and	d Traffic Engine	ering Do	boj	
Code			Co	ourse status	Semes	ter	EC	TS credits	
SAF12SL03120	616,031	1	mandator	<u>y</u>			6.00)	
Protessor/s		arko	Vasiljević, Full Pro	fessor					
ASSOCIATE/S		arko	vasiljevic, ruli Pic				64	udont	
Weekly h	ours			wo coe	rkload fficient S₀				
L	TE		LE	L	TE	LE		S₀	
3	1			3*15*1,4=63	1*15*1,4=21	1*15*1,4=21		1,4	
+ $1*15 = 75$	ad (nours	, per	semester) $3^{\circ}15 + 1$	15 10tal s 1*15*1 5 = 180 bours per s	,4= 105	urs, per semes	ter)3" 15"	1,4+ 1°15°1,4+	
		ofino	s the role and plac	of different logistic					
.	2. D	efine	s the structure of s	ervices and subsys	tems of the logistics	center accordir	na to the i	requirements of	
Course aims and	a	oods	s flows:				ig to the i	oqui onionio or	
learning outcomes	3. D 4. Q	 Defines and correctly structures the criteria for choosing the location of the logistics center; Quantifies the requirements and dimensions of the subsystems of the logistics center. 							
Prerequisites	None	None							
Teaching methods	lecture	ectures, auditory exercises, consultations							
Course content	 Provide the grade of praining the designing regiones control, Basic concept of logistics center planning, Design of logistics centers, Macro and micro planning and design of logistics centers, Methodology of designing and planning logistics centers, Methodology of designing and planning logistics centers, Macro and micro logistics models of logistics centers, Macro and micro logistics models of logistics centers, Methodology of making the Layout of the logistics centers, Methodology of making the Layout of the logistics center, Economic justification of the construction of the logistics center, Methodology for calculating investments in the construction of a logistics center, Analysis and calculation of costs in the construction of the logistics center, Models and procedure for determining the prices of services in the logistics center, Development of a simulation model of the justification for the construction of a logistics center. Impact of risk on the construction of the logistics center, Model of interactive optimization of logistics center, 								
Author/s			Nam	e of publication, p	ublisher	Year	Pag	es (from-to)	
Slobodan Zečević			Teretni terminali i	teretni transportni c	entri, Saobraćajni	2006			
			rakultet, Beograd			2000	I		
Author/s			Auuitional rea	me of nublication	editor	Year	Pag	es (from-to)	
Aution/S			I ogistics Systems	Analysis Springer-	Verlag Berlin	Tear	Гау		
Daganzo C. F.			Heidelberg	Analysis, Opiniger-	Venag Denni	2005			
-			Assessment	methods			Points	Percentage	
	Preexa	mina	ation obligations					-	
					attend	ance - lectures	5	5%	
Evaluation criteria					attenda	ance - exercise	5	5%	
	seminar paper 10 10%								
		Tests 2x25 50%							
	Final e	Final examination							
					oral	examionation	30	30%	
	Total						100	100%	
Web sources	Veb sources http://sf.ues.rs.ba/eng/wp-content/uploads/2024/01/Engleski-NPP-II-ciklus.pdf								
Applicable from	19.10.2	2023	- 213th session of	the Academic Cour	ncil, Faculty of Trans	port and Traffic	: Enginee	ring Doboj	

Course title	Course title Department			ERSITY OF EAST ansport and Traffic Study programme Profile: Logis	SARAJEVO Engineering Doboj : Traffic tics I year of study TRANSHIPMENT F	PROCESSE	S S			
Department		Trans	port Engineering -	Faculty of Transpo	ort and Traffic Engine	erina Dobo	i			
Code			Co	urse status	Semest	er	E	CTS credits		
SAF12SL03220	716,032	0	Electiv	ve 1			6.0	00		
Professor/s	PhD R	atko E	Duričić, Full Profes	sor						
Associate/s	Sanja	Simić,	Senior Assistant					0		
Weekly h	nours			Individual	student hours (pe	r semester)		Student workload coefficient So		
L 2	1E			L 2*15*1 1-62	1 E 2*15*1 4-42	LE 0*15*1 4-0	,			
J Total teacher workly	Z hours	$\frac{2}{10}$ is $\frac{1}{10}$ is						1,4 15*1 //+ 2*15*1 //+		
+ 0*15 = 75	Jau (IIUuis	$0^{*}15^{*}1.4^{-}=105$								
T	otal worklo	ad: W	+T=U _{opt} = 75 + 105	$\overline{5} = 180$ hours per s	semester					
Course aims and learning outcomes	1. ki 2. lr ic 3. a tr 4. a	 Introducing students to the concepts of operational management of transshipment processes Introducing students to the concepts of operational management of transshipment processes in logistics systems application of optimization methods in the operational management of transhipment processes with the presentation of the effects achieved apply the acquired knowledge in practice 								
Prerequisites	Transh	anshipment mechanization, Transport logistics								
Teaching methods	Classe	lasses are conducted in the form of lectures, tutorials, seminar papers (team presentations), case								
Course content	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	 Operational planning of transshipment processes Possible problems during operational planning of transshipment processes Focusing on potential operational planning issues Operational planning in transhipment processes Basic principles and places of rationalization of transshipment processes Preparation for the colloquium Various variants and methods used in operational planning of transshipment processes Quantitative methods in operational planning of transshipment processes Ways of application of operational planning in means of continuous action Ways of applying operational planning in cyclic transport vehicles Optimization methods applied in operational planning Practical examples and tasks-heuristic approach Practical examples and tasks-metaheuristic approach 								
Author/s		1	Name of publicat	ion, publisher		Year	Page	es (from-to)		
Vidović M		ł	Kvantitativna anali	za sistema transpo	rta materijala,	2007				
			Saobraćajni fakuli	tet, Beograd		2007				
Author/s			Additional fea	ion editor		Voor	Page	es (from-to)		
Daganzo C. F.		L	Logistics Systems	Analysis, Springer-	Verlag Berlin	2005	i ugu			
		A	Assessment m	ethods			Points	Percentage		
	Preexa	aminati	ion obligations			, .	10	100/		
Evaluation criteria		attendance - lectures/exercise 10 10%								
					Project pr	esentation	10	10%		
					sem	mar paper	10	10%		
		Midterm test 20 20%								
	Final e	xamin	ation		End-of.	term test	20	20%		
	T				oral ex	amination	30	30%		
A/-1	Iotal		and a first of the				100	100%		
web sources	http://	st.ues	s.rs.ba/eng/wp-co	ontent/uploads/20	<u>JZ4/U1/Engleski-NI</u>	<u>-H-II-ciklus</u>	<u>s.pdt</u>			
Applicable from	19.10.2	2023.	- 213th session of	the Academic Cou	Incil, Faculty of Iran	sport and Tr	attic Eng	ineering Doboj		

Study program: Traffic Profile: Logistics	Sax \						
Profile: Logistics	EH						
	ノ 河						
I II CYCLE I VEAL OF STUDY							
Course title LOGISTICS SYSTEM PERFORMACE MODELING							
Department Transport Engineering - Faculty of Transport and Traffic Engineering Doboj							
Code Course status Semester ECTS cred	dits						
SAF12SL03220816,0320 Electivel 1 6.00							
Protessor/s PhD Zeljko Stević, Associate Professor							
ASSociate/S FID Zeijko Stevic, Associate Fiblesson	had						
Weekly hours Individual student hours (per semester) Student works	S₀						
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Total teacher workload (hours, per semester)3*15 + 2*15 + 0*15 - 75	15*1,4+						
Total workload: W+T=U _{nt} = 75 + 105 = 180 hours per semester							
1. knowledge of concepts and definitions of logistics systems							
2. Introducing students to the need to introduce a set of relevant indicators - logistics performance of the set of the s	formance,						
Course aims and learning while respecting the complexity of the processes that implement logistics systems in the	business						
outcomes environment 2 tasks of logistics performance, goals, functions and relations between functions in logistic	a cyctome						
4. apply the acquired knowledge in practice	 apply the acquired knowledge in practice 						
Prerequisites None	None						
Teaching methods Lectures, exercises, video presentations, simulations, presentations							
1. Basic logistics systems and their connection with the conflict of goals in the market							
2. The need to introduce a set of relevant indicators - logistics performance in the business er	2. The need to introduce a set of relevant indicators - logistics performance in the business environment						
3. Problems of applying different approaches and striving for narmonization in this area 4. Associations whose goal is to develop performance models, their improvement							
5. Analysis of ten ISPI business performance standards							
6. Preparation for the colloquium							
7. Measuring and evaluating performance							
Course content	lS						
and models	systems						
10. Elaboration of the significance of costs							
11. Degree service in performance modeling							
12. Flexibility in performance modeling							
13. Safety in performance modeling							
14. Reliability in periormance modeling							
Textbook (s)							
Author/s Name of publication, publisher Year Pages (fro	om-to)						
Radivojevic G., Miljus Logistics controlling and performance, Faculty of 2007							
M., Vidovic M Transport and Traffic Engineering, University of Belgrade							
Additional readings	iom-to)						
Bromley, P.: A Measure of Logistics Success, Logistics Quarterly, Vol. 7.	011-10)						
No. 3.							
Assessment methods Points Per	ercentage						
Preexamination obligations	50/						
attenuance- rectures/exercise 5 5	5%						
Evaluation criteria seminar paper 20 20%	%						
tests 10 20%	%						
Midterm test 15 15%	Midterm test 15 15%						
End-of.term test 15 15%	End-of.term test 15 15%						
Final examination	000/						
oral examination 30	30%						
100al [100] 1 Web sources http://cf.ues.rs.bo/ong/wp.content/uploads/2024/01/Englocki.NDD.II. ciklus.rdf	100%						
Applicable from 10 10 2022 212th appaien of the Appdemic Council Council Security of Transport and Traffic Excitations Debu							

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-18		Faculty of	Iransport and Iraffic El	ngineering Doboj			A THE			
S S S S S S S S S S S S S S S S S S S			Profile: Logistics	anic		HL				
1015 4.5KB 30 50%		II cycle		I year of study		T.	AOEOJ			
Course title		LOGIS	TICS OF HAZARDOUS	MATÉRIALS						
Department	Transpor	t Engineering - Facul	Ity of Transport and Tra	fic Engineering Doboj						
Code		Co	urse status	Semester		EC 6.00	IS credits			
Professor/s	PhD Perica Goi	iković Full Professor	62			0.00				
Associate/s	hD Perica Goj	jković, Full Professor								
Weekly hours			Individua	l student hours (per se	emester)	Stu	dentworkload coefficient S₀			
L TE		LE	L	TE	LE		S₀			
3	1	1	<u>3*15*1,4=63</u> 1	*15*1,4=42 1	*15*1,4=0	1 - ± 1 1 1 ± 1 = ±	1,4			
l otal teacher workload (hours,	per semester)	3*15 + 1*15 +1*15 =	75 I otal stud	lent workload (hours, pe	er semester)3*	15*1,4+ 1*15*	1,4+ 1*15*1,4=			
То	tal workload: V	W+T=U _{opt} = 75 + 105 =	= 180 hours per semest	er						
	1. acquire th	he concepts of hazar	dous substances							
Course aims and	2. acquaint	students with the cha	aracteristics of hazardou	s substances						
learning outcomes	3. to acquai	int students with the	e directions of action th	hat can affect the incre	ease of safety	in the proce	esses of transport,			
	transhipm	nent and storage, as	well as the significant in	pact of this category of	goods on the	e ecosystem	as a whole			
Prereguisites	4. apply the acquired knowledge in practice									
Teaching methods	ectures, exerci	vises								
	1. The conc	cept of hazardous sub	ostances							
	2. Relevanc	e and importance of	logistics of hazardous n	naterials						
	3. Classification of hazardous substances and harmonization of regulations									
	4. Hazardous substances in logistics and transport processes									
	5. Character	ristics of hazardous s	ubstances and requirem	ents that work with this I	type of substa	nce generates	:: packaging,			
	method c	of storage, transporta	ation, etc.							
	 Delifiling i Proventivi 	risks in working with	the adverse effects of h	azardous substances						
Course content	8 Problems	s of routing and scher	duling vehicles in the tra	nsport of dangerous						
	9. Problems	s of choosing location	s for storage of hazardo	us materials - problem	settinas					
	10. Safety pro	ocedures and training	as a form of preventive	action in the event of an	adverse even	t caused by h	azardous			
	substance	ces	•							
	11. Transport	t documentation								
	12. Equipmer	nt of vehicles used fo	or transport of dangerous	s goods						
	13. Hazard si	iheets	he transport of depression	ua gaada						
	14. Obligation	ns of participants in the transport	ne transport of dangero	is goods						
	TO: Logariog	Textbook (s))							
Author/s		Nan	ne of publication, publ	isher	Year	Pa	ages (from-to)			
UN Orange Book	Re	ecommendations for	the Transport of Da	ingerous						
	Go	oods, Unated Nation	s Economic Commissi	on torEurope						
E Erkut C A Tiandra V Varta	Jr Ha	azardou s Material Tra	ansportation, In: C. Beri	inart, G.Laporte (Eds.),	2005					
E. EIKUL, S.A. IJanura, V. Verle	n ⊓a an	anubuuks in Operation nd Management Scier	ns Research nce: Vol 14 Transnorta	tion North Holland	2005					
	an	Additional readi	inas							
Author/s		Na	ame of publication, ed	itor	Year	Pa	ages (from-to)			
	Joi	ournal of hazardous m	naterials, Accident Analy	sis and						
	Pr	revention, Transport	ortation Science							
F	Proovaminet	Assessment m	ethods			Points	Percentage			
F F		ion obligations		attendance - lecture	es/exercise	5	5%			
					activity	5	5%			
				semi	nar paper	25	25%			
Evaluation criteria				Mid	term test	20	20%			
				End-of	term test	20	20%			
Ē	inal examin	ation				•				
				oral ex	amination	25	25%			
	Total					100	100%			
Web sources	http://sf.ues	s.rs.ba/eng/wp-c	content/uploads/20)24/01/Engleski-N	PP-II-ciklu	<u>is.pdf</u>				
Applicable from	9.10.2023 -	213th session of	the Academic Cou	ncil, Faculty of Tran	sport and T	rattic Engin	eering Doboj			

STOL Y HCTOHINGY			UNI Ecoulty of	VERSITY OF EAST SA	ARAJEVO		- and	DO 5			
	In Leav		Faculty of	Study programme: T	raffic			HA Y			
*******				Profile: Logistics	3						
275 459 30 LUS			II cycle		I year of study			OEOJ			
Course title		SUPPLY CHA		G AND MANAGEMEN	- 						
Department		I ransport Engi	neering - Faci	ulty of Transport and Transport and Transport	affic Engineering Doboj	AF	ECT	S oradita			
SAF12SI 03221116	0311		Flectiv	ve 2	Jenieste	;1	6.00				
Professor/s	PhD S	nežana Tadić	21000		I		0.00				
Associate/s	PhD S	nežana Tadić									
Weekly h	ours			Individu	al student hours (per s	semester)	Stud	dent workload coefficient S₀			
L	1	LE	1	2*15*1 1-62	TE	LE		S ₀			
ی Total teacher workload (hours per s	emester\3*15 4	 . 1*15 +1*15 :	⊃ 1⊃ 1,4−0⊃ = 75 Total str	I ID I,4-42 Ident workload (hours in	1 13 1,4-0)er semester)?*	15*1 <u>/</u> + 1*15*	1,4 1 4+ 1*15*1 4= 105			
	Total wo	rkload: W+T=U	$I_{opt} = 75 + 10$	05 = 180 hours per s	emester		10 1,1 11	1,4-100			
	1.	define the str	ucture of the p	process in the flows of	materials from the source	e of raw materi	als to the final	consumer			
Course aims and	2.	identifiy and o	uantifies relev	vant parameters in the	analysis and design of s	upply chains					
learning outcomes	3.	choose the o	ptimal supply	chain strategy							
Dura maria ita a	4.	master supply	y chain manag	gement models							
Prerequisites	None	e tutoriale ca	o studios dot	nato classos							
reaching methods	1	Defining supr	ly chains								
	2.	Characteristic processes in supply chains									
	3.	 Onaracteristic processes in supply chains Research on the interdependence of resource location, production dynamics, inventory management and 									
		transport flows within supply chains									
	4.	4. Logistics network configuration									
	5.	5. Identification of relevant factors for the development and implementation of supply chains									
	6.	6. Characteristic models used in certain supply chain configurations									
	/.	Effects of app	Dication of sor	ne models on supply c	hain performance. Colloc	quium 1					
Course content	0. Q	The important	ce of proper d	lemand forecasting mo	deling in supply chains						
	10	Global supply	chains B2B	strategies the importa	nce of e-commerce and	modern inform	ation technolo	aies			
	11	. Basic principl	es of modern	supply chain managen	nent. Supply chain devel	opment plannir	ng and strated	ies. Desian of			
		supply chair	network			- F					
	12	. Suppliers in s	supply chain p	erformance and barrier	s to achieving strategic a	advantage					
	13	. Supplier and	customer rela	tionship management							
	14	. Integration of	supply chain	s. Information technology	gies and their impact o	in the coordination	tion of logisti	cs activities			
	15	within the su	ipply chain	anhu ahaina. Callaguium	. 0						
	10		Textbook	s (s)							
Author/s		Name of	f publication,	publisher		Year	Pages (fro	om-to)			
Zecevic, S., Tadic, S.		Upravlja	nje lancima sr	abdijevanja, autorizova	ina skripta	2016		ł.			
			Additional re	adings	14			()			
Author/s		L	N N N	Name of publication, e	ditor	Year	Pa	ges (from-to)			
Simchi-Levi, D., Kaminsky, Levi:	, P.,and E. Sim	_{nchi-} Designi Case S	ng and Managii tudies, Irwin Mo	ng the Supply Chain: Cor cGraw Hill,Boston, MA	cepts, Strategies, and	2000					
Stadler, H., Kilger, C.:		Supply Softwar	Chain Manager e and Case Stu	nent and Advanced Planr udies,Springer-Verlag, Ber	ning: Cocepts, Models, lin Heidelberg	2002					
Evaluation criteria	Droov	A mination oblig	ssessment m	ethods			Points	Percentage			
	attendance - lectures/evercise 5 5%										
						activity	5	5%			
					s	eminar naner	30	30%			
					Mir	dterm test	20	20%			
					End-of	term test	20	20%			
	Final e	examination					20	2070			
					oral	examionation	20	20%			
	Total						100	100%			
Web sources	http://	sf.ues.rs.ba/e	ng/wp-conter	nt/uploads/2024/01/E	ngleski-NPP-II-ciklus.	<u>pdf</u>					
Applicable from	19.10.	2023 - 213th se	ession of the A	Academic Council, Facu	ulty of Transport and Tra	ffic Engineering	g Doboj				

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Logistics								
Course title	C	QUALITY MAN	AGEMENT N	ETHODS IN LOGISTI	CS				
Department	1	Fransport Engi	neering - Facu	Ity of Transport and T	affic Engineering Doboj				
Code			Co	ourse status	Semeste	r	E	CTS credits	
SAF12SL0322121	6,0311		electiv	/e 2			6.00)	
Professor/s	PhD Ži	vko Erceg							
Associate/s	PhD Ži	vko Erceg							
Weekly h	iours			Individu	al student hours (per s	emester)	Student workload coefficient S₀		
L	TE	LE		L	TE	LE		S₀	
3	1		1	3*15*1,4=63	1*15*1,4=42	1*15*1,4=0		1,4	
I otal teacher workload	(nours, per se Total wor	kload: W+T=U	$-1^{15} + 1^{15} =$ $_{opt} = 75 + 105$ concents and	= 75 I otal st 105 = 180 hours per sement definitions of quality	ident workload (hours, p	er semester)3	^15^1,4+ 1^1	5^1,4+ 1^15^1,4=	
Course aims and learning outcomes	3. 4.	Introducing str in logistics to enable stud apply the acq	udents to the r dents to indepute to indepute to indepute to indepute to indepute the second se	nethods, models and m endently apply existing ge in practice	ethodological procedures and develop new models	s of modeling a s of quality ma	and quality n anagement	nanagement	
Prerequisites	None								
Course content	 Evolutionary development of quality management system Quality of logistics service, processes and systems Quality functions in logistics, introduction of quality functions in logistics systems Measuring the quality of logistics services, measurement models and methods Measuring customer satisfaction Approach to the introduction of quality management systems. Purpose of quality management system documentation Development of procedures. Building business processes. Flowchart Process management through quality cost management Quality management methods The concept of continuous quality improvement. Quality loop Integrated management systems. Structure. Integration methods Total quality management (TQM) TQM concept and logistics 							nent system	
			Textbook (s)					
Author/s		Line P	Na	me of publication, pu	olisher	Year	F	ages (from-to)	
Kilibarda M., Zecevic, S	S.	Upravlja	nje kvalitetom	u logistici, Saobracajni	iakultet, Beograd	2008			
Bobreg M. I dr.		Upravlja	nje kvalitetom,	Mašinski fakultet, Ban	a Luka	2006			
		A	ssessment m	ethods			Points	Percentage	
	Preexa	mination obliga	ations						
Evaluation criteria	attenda	ince - lectures	s/exercise				10	10%	
					SE	eminar paper	20	20%	
					Mid	lterm test	10	10%	
					End-of	.term test	10	10%	
	Final ex	kamination							
oral examionation 30 30%					30%				
	Total						100	100%	
Web sources	http://s	f.ues.rs.ba/e	ng/wp-conter	nt/uploads/2024/01/E	ngleski-NPP-II-ciklus.r	odf			
Applicable from	19.10.2 Doboj	023 - 213th s	ession of the	Academic Council, Fac	ulty of Transport and Tra	ffic Engineerir	ng		

Study programme: Traffic Profile: Telecommunications and postal trafficIl cycleI year of studyCourse titleMODELS, SIMULATIONS AND ANIMATIONS IN TRAFFICDepartmentDepartment of Transport Engineering - Faculty of Transport and Traffic Engineering DobojCodeCourse statusSAF12SD03118116,0311mandatoryI6,00Professor/sPhD Mirko Stojčić, Assistant ProfessorAssociate/sPhD Mirko Stojčić, Assistant ProfessorWeekly hoursIndividual student hours (per semester)LTEL31163212111,4Total teacher workload (hours, per semester)3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours										
Profile: Telecommunications and postal traffic Il cycle I year of study Course title MODELS, SIMULATIONS AND ANIMATIONS IN TRAFFIC Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering Doboj Code Course status Semester ECTS credits SAF12SD03118116,0311 mandatory I 6,00 Professor/s PhD Mirko Stojčić, Assistant Professor Student workload coefficient So Associate/s PhD Mirko Stojčić, Assistant Professor Student workload coefficient So L TE LE TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) 3*15*1,4 + 1*15*1,4 + 1*15*1,4 + 105 hours										
Il cycle Il year of study Course title MODELS, SIMULATIONS AND ANIMATIONS IN TRAFFIC Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering Doboj Code Course status Semester ECTS credits SAF12SD03118116,0311 mandatory I 6,00 Professor/s PhD Mirko Stojčić, Assistant Professor Student workload coefficient So Associate/s PhD Mirko Stojčić, Assistant Professor Student workload coefficient So L TE LE L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours 3*15*1,4 + 1*15*1,4 = 105 hours										
Course title MODELS, SIMULATIONS AND ANIMATIONS IN TRAFFIC Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering Doboj Code Course status Semester ECTS credits SAF12SD03118116,0311 mandatory I 6,00 Professor/s PhD Mirko Stojčić, Assistant Professor Student workload Associate/s PhD Mirko Stojčić, Assistant Professor Student workload L TE LE L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours 3*15*1,4 + 1*15*1,4 = 105 hours										
Department Department of transport Engineering - Faculty of transport and Transport										
Course status Semester EC is credits SAF12SD03118116,0311 mandatory I 6,00 Professor/s PhD Mirko Stojčić, Assistant Professor Associate/s PhD Mirko Stojčić, Assistant Professor Weekly hours Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours										
Professor/s PhD Mirko Stojčić, Assistant Professor Associate/s PhD Mirko Stojčić, Assistant Professor Weekly hours Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours										
Associate/s PhD Mirko Stojčić, Assistant Professor Weekly hours Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 = 105 hours										
Weekly hoursStudent workload coefficient SoLTELELTELESo3116321211,4Total teacher workload (hours, per semester) $3*15 + 1*15 = 75$ hoursTotal student workload (hours, per semester) $3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105$ hours										
Weekly hoursIndividual student hours (per semester)LTELELSo311632121Total teacher workload (hours, per semester)Total student workload (hours, per semester)Total student workload (hours, per semester) $3*15 + 1*15 + 1*15 = 75$ hours $3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105$ hours										
L TE LE So 3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours Total student workload (hours, per semester) 3*15*1,4 + 1*15*1,4 = 105 hours										
3 1 1 63 21 21 1,4 Total teacher workload (hours, per semester) Total student workload (hours, per semester) 3*15 + 1*15 + 1*15 = 75 hours 3*15*1,4 + 1*15*1,4 = 105 hours										
Total teacher workload (hours, per semester)Total student workload (hours, per semester) $3*15 + 1*15 + 1*15 = 75$ hours $3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105$ hours										
<u>3*15 + 1*15 + 1*15 = 75 hours</u> <u>3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours</u>										
I otal workload: $W+I=U_{opt}=75+105=180$ hours per semester										
By mastering the content of this course, the student will be able to:										
Course aims and										
learning outcomes										
4. animate traffic processes										
Prereguisites None										
Teaching methods Lectures, auditory exercises, seminar paper										
1. Modeling. Definition, types of models. Modeling and models										
2. Simulation. Computer simulation. Historical overview of simulation development										
3. Model classification. Model classification. Formal model specification										
4. Estimation of model parameters										
5. Validation and verification of the model										
6. Probability and statistics in simulation										
Course content										
9. Process ontimization. Problem formulation. Classification of ontimization methods										
10 Modular simulation										
11. Calculation blocks (modules)										
12. Matrix form of technological scheme structure										
13. Matrix methods for determining computational cycles										
14. Exercises on modern simulation software: SIMUL8, PC CRECH, SIMIO										
15. Exercises on modern simulation software: SIMUL8, PC CRECH, SIMIO										
Textbook (s)										
Author/s Name of publication, publisher Year Pages (from-to)										
Averill M. Law Simulation Modeling and Analysis, McGraw-Hill Education 2014.										
Rozičković R Metede optimizacije. Faculty of Transport and Traffic Engineering 1-257										
Doboi										
Additional readings										
Author/s Name of publication, editor Year Pages (from-to)										
Čupić M. et al. Specijalna poglavlja iz teorije odlučivanja, FTN Novi Sad 2009. 1-135										
Evaluation criteria Assessment methods Points Percentage										
Pre-exam obligations										
attendance - lectures / exercises 10 10%										
positively assessed seminar paper / project / essay 10 20%										
case study - group work 10 10%										
test 20 10%										
Final exam (oral / written) 50 50%										
TOTAL 100 100%										

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Telecommunications and postal traffic Il cycle I year of study TEL EMATICS SYSTEMS									
Course title			,	TELI	EMATICS SYSTE	MS				
Department		Informatio	on - Communicat	tion Systems in Traf	fic - Faculty of Tran	sport and Traffic	c Engineering D	oboj		
Code			Co	urse status	Seme	ester	ECTS	credits		
SAF12ST03121916,0 SAF12SI03121916,0)311 <u>311 </u>		elect	ive			6.0			
Professor/s	PhD A	leksanda	r Stjepanović,	Associate Profess	or					
Associate/s	PhD A	leksanda	r Stjepanović,	Associate Profess	or					
Weekly ho	ours			Individual s	tudent hours (p	er semester)	Student coefficie	workload nt So		
L	TE		LE	L	TE	LE		So		
3	1		1	3*15*1.4=63	1*15*1.4=21	1*15*1.4=21		1.4		
Total teacher v 3*15 +	vorkload 1*15 + 1	(hours, p *15 = 75	er semester) hours		Total student 3*15*1.4 + 1	t workload (ho 1*15*1.4 + 1*1	urs, per seme 5*1.4 = 105 ho	ster) ours		
		Tota	I workload: W+	T=Uopt= 75 + 10	5 = 180 hours per	semester				
Course aims and learning outcomes	By ma 1. Ac 2. Pr 3. Ro 4. IT 5. By	istering the ctive know coposal of esearch c S archite y defining	te content of the vledge of regul f solution of dis of ITS and inter cture user requirem	is course the stud ations and norms, tributed informatio action with spatial ents for the purpo	ent will be able to European regula n and communica information infras	: itions related to ation systems f structure sport problems	o ITS for transport m s	nonitoring		
Prerequisites	There	is no pric	or conditionality	, , ,		•				
Teaching methods	Lectur	es, audito	ory exercises, I	aboratory exercise	es, consultations					
Course content	1. Tr 2. Ad 3. Ba 4. Eu 5. IT 6. Tr 7. Te 8. Do 9. Si 10. § 11. \ 12. T 13. (14. 15.	 Traffic management. Traffic management strategies Adaptable systems. Network capabilities Basic definitions of ITS. ITS development. European ITS projects, Standards, norms of the directive, legal bases, FRAME project ITS architecture. Theoretical foundations, Possible applications of ITS Traffic management - traffic distribution and application of ITS. Technical preconditions for the application of ITS Detectors and sensors Simulation programs, Evaluation of effects Spatial infrastructure of GIS and ITS. ITS and GPS Variable signaling, standards Traffic management on highways in urban areas Congestion management and application of ITS in congestion management Informing traffic participants, Human factor, QoE, QoS Internet and ITS. 								
Author/s			Nam	e of publication,	publisher	Year	r Page	es (from-to)		
A. Stjepanović, M. Ko	ostadinov	/ić To	elematski siste	mi, University of E	ast Sarajevo	2020)			
	Pre-ex	A kam oblig	Assessment m ations	ethods			Points	Percentage		
				atte	endance - lectures	s / exercises	5	5%		
				ро	sitively graded se	minar paper	15	15%		
Evaluation criteria					N	lidterm test	15	15%		
					End-	of.term test	15	15%		
					laborato	ry exercises	10	10%		
	Final e	Final exam								
	oral 40 40%							40%		
	IN TO	IAL					100	100%		
Web sources	http://s	st.ues.rs.l	pa/eng/wp-cont	tent/uploads/2024	/01/Engleski-NPF	2-II-ciklus.pdf				
Applicable from	19.10.	.2023 2	13th session o	t the Academic Co	ouncil, Faculty of	I ransport and	I raffic Engine	ering Doboj		

Faculty of Transport and Traffic Engineering Dobg Study programme: Traffic Profile: Telecommunications and postal traffic Course title LectroNic Systems in Traffic Faculty of Transport and Traffic Engineering Dobg Course situe Semester ECTS credits SAF125703222016.0311 elective I 6.0 Code Course situe Semester ECTS credits SAF125703222016.0311 elective I 6.0 PhD Miroslav Kostadinović, Associate Professor Student tworkload (hours, per semester) Student workload (hours, per semester) Total teacher workload (hours, per semester) W = 3°15 + 1 Total student workload (hours, per semester) Course aims and learning uotic colspan="2">advice total colspan="2">Student Warkload (hours, per semester) Total teacher workload (hours, per semester) W = 3°15 + 105 = 160 hours per semester Course aims and learning uotic colspan="2">Total teacher workload (hours, per semester) Total teacher workload (hours, per semester)	Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly how L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods	0311 0311 P P P P P P P P P P P P P P P P P P	F Information a hD Mirosla hD Mirosla	aculty of Tra S Profile: Tele II cycle EL and Communi Co elect v Kostadino v Kostadino	Ansport and Traffi tudy programme communication ECTRONIC SYS cation Systems in urse status ive vić, Associate Pro-	c Engineering Dobc e: Traffic s and postal traffic I year of study TEMS IN TRAFFIC Traffic, Faculty of Tran Semes	j sport and Tra ter	iffic Engine	ering Doboj		
Study programme: Traffic Profile: Telecommunications and postal traffic I cycle I year of study Course title Department Information and Communication Systems In TRIG. Faculty of Transport and Traffic Engineering Doboj Code Course status Senset ECTS credits SAF125T00322016.0311 elective I 6,0 Professoris PhD Miroslav Kostadinović, Associate Professor Associate's Norking Westa Meekly hours Individual student hours (per semester) Student worklog Course sims and networks and their applications in traffic and transport X Y Z V15'TS Total teacher workload (hours, per semester) Total student will acquice Total teacher workload (hours, per semester) Total student will acquice Total student will acquice Total student will acquice Total student will acquice	Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly hou L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods)311)311 P vurs TE Y ad (hours 5 + 15 = 7 Total wo	hD Mirosla	S Profile: Tele II cycle EL and Communi Co elect v Kostadino v Kostadino	ECTRONIC SYS Cation Systems in Urse status ive vić, Associate Prović	e: Traffic s and postal traffic I year of study TEMS IN TRAFFIC Traffic, Faculty of Tran Semes	sport and Tra	affic Engine	ering Doboj		
Profile: leicommunications and postal traffic Profile: leicommunication systems and postal traffic Course title LECRONIC SYSTEMS IN TRAFFIC Department Information and Communication Systems in Traffic, Faculty of Transport and Traffic Engineering Dobj Course status Semester ECTS credits SAF12ST03222016.0311 elective I 6.0 Professoris PhD Minoslav Kostalinović, Associate Professor Mortica LE LE Sasociate/s PhD Minoslav Kostalinović, Associate Professor Weekly hours Individual student hours (per semester) Sudent workload (hours, per semester) Total leacher workload (hours, per semester) Total student workload (hours, per semester) Total workload (hours, per semester) Total workload (hours, per semester) Total workload (hours, per semester) Total workload (hours, per semester) Total workload (hours, per semester) Total workload (hours, per semester) <th< th=""><td>Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly hou L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods</td><th>)311)311 P ours TE Y ad (hours 5 + 15 = 7 Total wo</th><td>nformation a hD Mirosla hD Mirosla</td><td>Profile: Tele II cycle EL Ind Communi Co elect v Kostadino v Kostadino</td><td>ECTRONIC SYS ECTRONIC SYS cation Systems in urse status tive vić, Associate Prović</td><td>s and postal traffic I year of study TEMS IN TRAFFIC Traffic, Faculty of Tran Semes</td><td>, sport and Tra ter</td><td>affic Engine</td><td>ering Doboj</td></th<>	Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly hou L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods)311)311 P ours TE Y ad (hours 5 + 15 = 7 Total wo	nformation a hD Mirosla hD Mirosla	Profile: Tele II cycle EL Ind Communi Co elect v Kostadino v Kostadino	ECTRONIC SYS ECTRONIC SYS cation Systems in urse status tive vić, Associate Prović	s and postal traffic I year of study TEMS IN TRAFFIC Traffic, Faculty of Tran Semes	, sport and Tra ter	affic Engine	ering Doboj		
II Cycle Type of study Course title ELECTENDIC SYSTEMS IN TRAFFIC Department Information and Communication Systems in Traffic, Faculty of Transport and Traffic Engineering. Doboj Account Status Semester ECITS credits Shef12ST0322016,0311 PhD Minoslav Kostadinović, Associate Professor Student worklo Associate/s PhD Minoslav Kostadinović, Associate Professor Student workload (hours, per semester) Weekly hours Individual student hours (per semester) Student workload (hours, per semester) Coll leacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester) Total taudent will acquire: Total student workload (hours, per semester) Total student workload (hours, per semester) The student will acquire: Theoretical knowledge of stelecommunication systems and networks infead their applications in traffic and transport systems. Course aims and learning outcomes No Lecture, auditory exercises, laboratory exercises, consultations Perequisites No Lecture, auditory exercises, laboratory exercises, consultations Perester in public breadcasting systems (RDS, DAB) in traffic Perester in public breadcasting systems (RDS, DAB) in traffic <t< th=""><th>Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly how L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods</th><th>)311 P P P P P P P P P P P P P</th><th>nformation a hD Mirosla hD Mirosla</th><th>II cycle EL Ind Communi Co elect v Kostadino v Kostadino</th><th>ECTRONIC SYS cation Systems in ⁻ urse status ive vić, Associate Pro</th><th>Tems IN TRAFFIC Traffic, Faculty of Tran Semes</th><th>sport and Tra ter</th><th>affic Engine</th><th>ering Doboj</th></t<>	Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly how L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods)311 P P P P P P P P P P P P P	nformation a hD Mirosla hD Mirosla	II cycle EL Ind Communi Co elect v Kostadino v Kostadino	ECTRONIC SYS cation Systems in ⁻ urse status ive vić, Associate Pro	Tems IN TRAFFIC Traffic, Faculty of Tran Semes	sport and Tra ter	affic Engine	ering Doboj		
Course title ELECTRONIC SYSTEMS IN TRAFFIC Department Information and Communication Systems in Traffic, Faculty of Transport and Traffic Engineering. Dobj Code Course status Semester ECTS credits SAF12ST03222016,0311 elective I. 6,0 Professoris PhD Miroslav Kostadinović, Associate Professor Associate/s Student workload Verdessories PhD Miroslav Kostadinović, Associate Professor Student workload (hours, per semester) Student workload (hours, per semester) Student workload (hours, per semester) Total student workload (hours, per semester) Ta3*15*1,4 + 115*1,4 + 3 + 3 + 3 + 2 + 21 + 2105 hours Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester) Ta3*15*1,4 + 115*1,4 + 115*1,4 + 3 + 21 + 21 + 2105 hours Total workload, W + T = U _{ot} = 75 + 105 = 180 hours per semester Te3*15*1,4 + 115*	Course title Department Code SAF12ST03222016,0 Professor/s Associate/s Weekly how L X Total teacher workloa 1*15 + 1*15 = 45 + 15 Course aims and learn outcomes Prerequisites Teaching methods)311 P P P P P P P P P P P P P P P P P P	hD Mirosla hD Mirosla hD Mirosla	EL Ind Communi Co elect v Kostadino v Kostadino	ECTRONIC SYS cation Systems in urse status ive vić, Associate Pro	TEMS IN TRAFFIC Traffic, Faculty of Tran Semes	sport and Tra ter	affic Engine	ering Doboj		
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attendance - lectures / exercises 10 10%			<i>F</i>	ssessmen	t methods			Points	Percentage		
nositively evaluated seminar paper 10 10%		F	re-exam or	ligations		ttandanaa laatura	Lavaraiaaa	10	100/		
						allenuance - lecture:	minor nono	10	10%		
Midterm tect 15 150/					pos		ninai papel dterm test	10	1070		
Evaluation criteria End_of term test 15 15%	Evaluation criteria	F				Fnd_o	f term test	15	15%		
		F	End-of.term test 15 15%								
Final exam	Final exam								10/0		
Theoretical 40 40%			inal exam			laboratory	5.0101000	-			
TOTAL 100 100 %		F	inal exam			laboratory	Theoretical	40	40%		
Web sources http://sf.ues.rs.ba/eng/wp-content/uploads/2024/01/Engleski-NPP-II-ciklus.pdf	Web sources		inal exam			laboratory	Theoretical	40	40% 100 %		
Applicable from 19.10.2023 - 213th session of the Academic Council. Faculty of Transport and Traffic Engineering	Applicable from	- - - - - - - - - - - - - - - - - - -	inal exam OTAL ttp://sf.ues.	rs.ba/ena/w	p-content/uploads	laboratory	Theoretical	40 100 s.pdf	40% 100 %		
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	I	Profile: Tele	ecommunica	ations	and postal traff	fic		La		
5 4.5rg 30 54		II cycle			l year of stu	dy		V		
Course title	PROJECT N	MANAGEM	ENT IN POS	TAL T						
Department	Information	- Communi	cation Syste	ms in T	Fraffic - Faculty c	of Transport				
Codo	and Traffic E				Somo	ctor		БСТО	S orodito	
SAF12ST03222116 0311		elect	uise siaius		Senie	5161		6.00	5 credits	
Professor/s	PhD Ar	nel Kosova	n Associate	Profes	sor			0,00		
Associate/s	PhD Ar	nel Kosova	c. Associate	Profes	sor					
	p							Stude	nt workload	
Weekly hours			Individ	dual st	udent hours (pe	er semester)		coe	fficient S _o	
L TE	LE		L		TE	LE			S₀	
3 1		1	3*15*1,4=63	3	1*15*1,4=2	1*15*1,4=	2		1,4	
					1	1				
Total teacher workload	l (hours, per s	semester)			Total student	workload (he	ours, p	er seme	ester)	
3*15 + 1*15 + 2	<u>1*15 = 75 hoι</u>	75 hours 3*15*1,4+ 1*15*1,4+ 1*15*1,4= 105 hours ad: W+T=Llas= 75 + 105 = 180 hours per semester								
l otal v	vorkload: W+	$I=U_{opt}=75$	+ 105 = 180	hours	per semester					
	By mas	stering the c	ontent of this	s cours	e, students will b	e able to:	tman	aamon	L.	
Course aims and learning	1. ap	1. apply the latest knowledge in the field of project and investment management;								
outcomes	z. ap	st achiever	nents in the	a techini arv and	nractice.		int ma	nayeme	ni, as well as the	
outcomes	3 rec	conize and	defines the r	role and	d place of projec	t and investn	nent m	anagem	ent:	
	4. per	form perfor	mance impro	overner	nt in project mana	agement.	lonen	anagon	iont,	
Prereauisites	None					gement				
Teaching methods	Lecture	s, auditory	exercises, la	borato	ry exercises, con	sultations				
	1. Co	ncept and d	efinition of th	ne proje	ect. Types of pro	jects. Project	s in po	ostal traf	fic.	
	2. Pro	ject Manag	ement accor	ding to	PMI (Project Ma	anagement Ir	stitute	e).		
	3. Pro	ject manag	ement conce	ept.		•				
	4. Pro	oject manag	ement organ	nization						
	5. Hu	man resour	ce managem	nent						
	6. Co	ntract Mana	igement							
	7. Pro	pject quality	managemer	nt.						
Course content	8. Pro	oject risk ma	inagement							
	9. Pro	oject commu	inication mai	nagem	ent. Project char	ige manager	nent.			
	10. P	10. Freparation and evaluation or investments in communications.								
	11. III 12 D	roject realiz	ation plannin	agemer	ιι.					
	12.1 13 M	lonitoring ar	nd control of	nroiect	implementation	lementation.				
	14. P	14. Project realization reporting system.								
	15. C	omputer pro	ograms for p	roject n	nanagement. Pro	oject manage	ment	methods	and techniques	
		Textbook (s)								
Author/s		Name	of publicat	tion, pu	ublisher	Yea	r	Page	es (from-to)	
Jovanović P	Upravlja	nje projektor	n, Faculty of C	Organiza	ational	200	4.			
	Science	S	ma Crefeele	o Deler	rada	200	 ว			
	Opravlja		ama, Gratosio	у, веіği	laue	200	۷.			
Author/s		Nan	ne of nublic	ation	editor	Ver	r	Page	es (from-to)	
Lock D	Project	manademe	nt Gower P	ress 1	ondon LIK	1977		i age	(IIOII-10)	
	Shedul	ing of resou	rce - constra	ained n	roiects.	2000				
Klein R.	Kluwer	Academics	Publishers.	Boston	, MA					
Evaluation criteria	Assessment methods Points Percent							ercentage		
	Pre-exa	am obligatio	ns							
	attenda	nce continu	ied				10)	10 %	
						activity		5	5 %	
	positive	ely graded s	eminar pape	er			10)	15 %	
	Midterm test, End-of-term test 2 x 25 50%						50%			
						oral exam	50)	50 %	
		written exam 25 25 %						25 %		
	TOTAL				1 1000 1 10 1 10		10	0	100%	
Web sources	http://si	tues.rs.ba/e	eng/wp-conte	ent/uplo	pads/2024/01/En	gleski-NPP-I	I-ciklu	s.pdf		
Applicable from	19.10.20	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering Doboj								

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-18.		- Fa	aculty of 1 ra	ansport and 1	raffic E	ngineering Dobo	Ŋ	5 /3	A MARKEN AND AND AND AND AND AND AND AND AND AN	
		F	o Profile: Tele	ecommunicat	tions a	and postal traffic	c	HI		
275 4.500 30 J.15			II cycle			l year of stud	у	E.	40E01	
Course title				MUL	TIMED		ATIONS			
Department	Info	rmation	- Communi	ication Systen	ns in T	raffic - Faculty of	Transport a	ind Traffic E	Engineering Doboj	
Code			Co	urse status		Semes	ster	E	CTS credits	
SAF12ST03210516,0	311		elect	tive	,			6.0		
Protessor/s	PhD Aleks	andar S	tjepanović, tiopanović	Associate Pro	ofesso	r r				
Maakky have			gepanovic,					Stude	ent workload	
vveekiy not	urs TE	1 10		Individ	ual sti	udent nours (pe	r semester)	coeff	icient S₀	
L 3	1E 1		1	L 2*15*1 /-63	1	1E *15*1 /-21	LE 1*15*1 /-01		3 0	
J Total teacher w	ı orklaad (boı		I somostor)	5 15 1.4-05	I	Total students	1 13 1.4-21 workload (b)		1.4 mostor)	
3*15 + 1	*15 + 1*15 :	= 75 hou	Jrs			3*15*1.4 + 1*	15*1.4 + 1*	15*1.4 = 10	5 hours	
01011	10 1 10	Total w	vorkload: W	+T=U _{opt} = 75 +	105 =	= 180 hours per s	emester			
	1. web a	oplicatio	ns with tech	nnologies of m	nodern	multimedia com	munications			
	2. distrib	uted mu	Itimedia ap	plications						
Course aims and	3. "Data	mining"	of multimed	lia data in trar	nsport					
learning outcomes	4. quality	of serv	ice in multin	nedia commu	nicatio	ns				
Duran and altera	5. develo	pment o	of multimed	ia applications	s for tra	ansport purposes	5			
Prerequisites	None	uditory	ovoroisos	laboratory ove	roicoc					
reaching methods		ncent o	f multimedi	a and multime	dia co	mmunication in a	all modes of	transport		
	2 Multim	iedia ele	ments - im	a anu muitime ane analysis	edne r	Aetection detection	on of faces	ohiects		
	3 Creati	na multi	media annli	cations for tra	nsport	t nurnoses-annlic	ation of HTM		ss	
	4. Multim	edia da	ta mining		nopon					
	5. Multim	edia co	mmunicatio	ns: modern tr	ends					
	6. Multim	iedia we	b applicatio	ons - integratio	on with	spatial informati	on infrastruc	ture (INSP	RE)	
	7. Multim	iedia sig	nal process	sing: compres	sion te	chniques			-	
0	8. Distrib	uted m	ultimedia s	ystems and	their a	application in pa	issenger tra	cking, con	trol and informatio	
Course content	systen	าร								
	9. Multim	iedia on	the Interne	t-google maps	5					
	10. Multi	media c	ommunicati	on standards						
	11. Interi	net acce	ess network	S F I I H, ADSI Itimadia aamn	L, VDS	SL, DUCSIS				
		ity of so	rvice in mul	timedia comm	nunica	tions_OoE user e	vnerience c	uality of Oc	Service	
		matic im		ution - applica	tion in	transport (use of	f tools in Ma	hlah)		
	15. 5G m	nobile co	ommunicatio	ons. multimed	ia in m	nobile communica	ations	indb)		
				Textbo	ok (s)					
Author/s			Namo	e of publicati	on, pı	ublisher	Yea	ır P	ages (from-to)	
K. R. Rao, Z. S. Bo	jkovic, D. A	Multim	edia	Communic	ation	Systems	: 200	2		
Milovanovic		lechni	ques,Stand	ards and Net	vorks,	Prentice-Hall	200	2 Delinte	Deveryferie	
Evaluation criteria	Pro ovam	ASS obligatio		iethods				Points	Percentage	
	rie-exam	obligatic	115		atten	idance - lectures	/ exercises	5	5%	
	positively graded seminar paper 15 15%									
					poor	Mi	dterm test	15	15%	
						End-o	f term test	15	15%	
						laborator	v exercises	10	10%	
	Final exam	1					,		1070	
							oral	40	40%	
	TOTAL							100	100%	
Web sources	http://sf.ue	s.rs.ba/	eng/wp-con	tent/uploads/2	2024/0	1/Engleski-NPP-	II-ciklus.pdf			
Applicable from	19.10.2023	3 - 213t	h session o	f the Academ	ic Cou	ncil, Faculty of T	ransport and	Traffic En	gineering Doboj	

ST J NETOHIOT	UNIVERSITY OF EAST SARAJEVO									
-18-		Faculty of Tran	sport and Traffic E	Ingineering Doboj			Har &			
·82·		Profile: Telec	ommunications a	and postal traffic						
915 1.5vo 30 1.5		II cycle	l yea	r of study		AOF	101			
Course title	COM	MUNICATION SY	STEMS IN POST	AL TRAFFIC						
Department	Inforr	mation - Communi	cation Systems in	Traffic - Faculty of	Transport an	d Traffic Eng	ineering Doboj			
Code	4	Co	urse status	Semes	ster	ECT	S credits			
SAF 125103222216,031	l DhD Amal		to Professor			6,00				
Associate/s	PhD Amel	Kosovac, Associa	te Professor							
		1000000,7000000				Stude	ent workload			
Weekly hours			Individual	student hours (pe	r semester)	coe	fficient S _o			
L TE		LE	L	TE	LE		S₀			
3	1	1	3*15*1,4=63	1*15*1,4=2	1*15*1,4=2		1,4			
Total teacher work	load (hou	rs ner semester)		Total student	workload (ho		ester)			
3*15 + 1*1	5 + 1*15 =	75 hours		3*15*1,4+ 1	*15*1,4+ 1*1	5*1,4= 105 h	ours			
	Total v	vorkload: 75 + 105	= 180 hours per	semester	·					
	By master	ing the content of	this course the stu	dent will acquire a	nd be able to	apply:				
Course aims and	1. theore	tical,								
learning outcomes	2. protes	sional,	o field of tolocom	munication to chool	ogiog					
	3. practic	edge of systems a	nd networks inten	ded for modern trai	ogles, ffic and transi	nort systems				
Prereguisites	There is no	o prior conditionali	tv			Jon Oystomo.				
Teaching methods	Lectures, a	auditory exercises	laboratory exerci	ses, consultations						
	1. Introd	uction to telecomr	nunication system	s and their potentia	al applications	s in traffic and	transport.			
	2. Applic	cation of public bro	adcasting system	s (RDS, DAB) in tra	affic.		·			
	3. Public	c networks for mot	ile communicatior	ns. Mobile commur	ications for c	losed user gr	oups.			
	4. Dedic	ated radio netwo	orks for data tra	nsmission (MOBI	TEX, TETRA	, TRAXYS,	ARDIS,			
	RICO	CHEI).	aa ID natwarka							
	5. Fixeu 6. Virtua	I Private Networks	SS IF Helworks	s (ROF)						
•	7. Senso	or and ad-hoc network	orks for traffic mo	nitoring and regula	tion. Typesof	sensor techr	nologies			
Course content	8. Wirele	ess communication	n systems designe	ed for safe traffic.						
	9. Dedic	ated Short Range	Communications	in Road Traffic (DS	SRC). Wireles	s local area r	networks			
	10. Satell	ite communication	systems and thei	r applications in tra	ffic.					
	11. Vehic	le positioning, nav	igation and trackir	ng systems.						
	12. Comn	nunication system	s for the needs of	electronic payment	t for services	(toll, ticket sa	les, etc.)			
	13. GSIVI-	R - global mobile	communications s	ystem for railway a	pplications					
	15 Com	nunication system	s in river and mari	time traffic River in	nformation se	rvices				
	101 0011	Text	ook (s)			11000.				
Author/s		Nam	e of publication,	publisher	Year	· Page	es (from-to)			
M. A. Chowdhury, A. Sadek	ζ,	Fundamentals of li Artech House,	ntelligent Transport	ation Systems Plan	ning, 2003					
J. Lavergant, M. Sylvain,		Radio Wave Propag Одабрани чланци Мадазіра	ation: Principles из часописа IEE	and Techniques, V E Vehicular Techno	Viley, blogy					
		Assessment r	nethods			Points	Percentage			
l l	Pre-exam	obligations					.			
			а	ttendance - lecture	s / exercises	5	5%			
			ŗ	ositively graded se	eminar paper	15	15%			
Evaluation criteria				M	idterm test	15	15%			
				End-c	of.term test	15	15%			
-	Final aver	<u>,</u>		laboratory exercises 10						
-	rinai exam	1								
	τοται				oral exam	40	40%			
Web sources	TOTAL	s.rs.ba/eng/wn-co	ntent/uploads/202	4/01/Enaleski-NPP	oral exam	40 100	40% 100 %			

SET Y MCTOHNOIT	UNIVERSITY OF EAST SARAJEVO									
		Faculty of Trai	nsport and Traffic	Engineering Dobo	J	HE I	N MA			
82		Pro	file: Informatics	in traffic			DEOJ			
15 4.5 YO 30 MIN		II cycle		I year of study	1		1.5			
Course title		DESIGN A	ND APPLICATIO	N OF DIGITAL SY	'STEMS					
Department	Elec	ctronics and Electro	onic Systems - ET	East Sarajevo						
Code	1	Co	urse status	Seme	ster	ECT	S credits			
SAF 125103209316,031	I PhD Gora	eleci n Kuzmić Assistar	IVe at Professor	I		6,0				
Associate/s	PhD Gora	in Kuzmić, Assistar	nt Professor							
Weekly hour	s		Individual s	tudent hours (pe	er semester)	Stude	nt workload fficient S₀			
L TE		LE	L	TE	LE		So			
X Y		Z	X*15*S₀	Y*15*S₀	Z*15*S₀					
Total teacher workload	(hours, pe	er semester) W =	3*15 +	Total student	workload (ho	ours, per sem	ester)			
$\frac{1^{1}15 + 1^{1}15 = 45 + 15 + 15}{T_{c}}$	15 = 75 holds	ours	= 	<u>3*15*1,4 + 1*15*1</u>	,4 + 1^15^1,4	1=63 + 21 + 2	1=105 nours			
	Students v	will get acquainted	$\frac{3+103-100100}{100}$ with and master th	ns per serriester	e field of					
Course aims and	-construct	tion, structure, appl	ication of digital sy	stems,						
learning outcomes	-procedur	es and phases of d	esign, design of c	ombination and se	quential syst	ems,				
	-design of	f digital systems.								
Prerequisites	No		-							
Teaching methods	Lectures,	auditory exercises,	aboratory exercis	tal systems. Appl	cation of dia	ital systems ?	Procedures			
	and basic	stages in digital sv	rstem desian	lai systems. Appi	cation of uly	ilai systemis 2	FIOCEGUIES			
	Ways an	d styles of design.	Project documen	tation 4 Basic						
	parameter	rs of digital circuits	and systems							
	Design an	nd application of co	mbination assemb	lies and systems						
	Compone	nts and criteria to	r selection of rea	combination sys	tems 7 State	9				
Course content	Automats Design	and State Diagram	is (Colloquium 1)	mhlies and svs	toms 9					
	Optimizati	ion of real sequenti	al systems	indico ana oyo						
	Programm	nable logic circuit	s and their app	lication in digita	l system de	esign 11				
	Combinat	ional and sequentia	al programmable le	ogic components						
	Design ap	proach with micro	processors and m	icrocontrollers 13	Display of					
	a specific	microcontroller	an support with mi	crocontrollers						
		ent realization of a	small proiect (Coll	pauium 2)						
	1	Textb	ook (s)							
Author/s		Name of	publication, pub	isher	Yea	r Pag	es (from-to)			
Morshed, Bashir I.	Embeda Springer	led Systems-A Hard r International Publish	ware-Software Co- hing.	Design Approach.	202	1.				
Nayak, Aruna, et al.	Enginee	ering Education Confe	erence (EDUCON). I		202	2				
Deepa, M., et al.	micropro	cessors and microco	ontrollers course. Jo	ournal of Engineerin	g. 202	1				
	Increasi	ng the Accuracy of th	e Approximation of	/icroprocessor Fuz:	zy					
Vassiliev, A. E.	Solvers	Supporting Members	hip Functions of an A	rbitrary Type. Journ	al 202	1				
	of Comn	nunications Technolo	gy and Electronics (6.3 300-317.						
			eauings nethods			Points	Percentage			
	Pre-exam	obligations	lictious				reroentage			
			a	tendance - lecture	es / exercises	10	10%			
			pos	tively evaluated se	eminar paper	10	10%			
Evaluation criteria	Midterm test 15 15%									
				End-o	of term test	15	15%			
		10	10%							
	ΤΟΤΑΙ				THEOTELICAL	100	40%			
Web sources	http://sf.ue	es.rs.ba/ena/wp-cor	ntent/uploads/2024	1/01/Enaleski-NPF	P-II-ciklus.pdf	100	100 /0			
Applicable from	19.10.202	3 - 213th session o	of the Academic Co	ouncil, Faculty of T	ransport and	Traffic Engir	eering Doboj			

UNIVERSITY OF EAST SARAJEVO										
-18°		Faculty	of Iranspo	rt and Traffic Eng	ineering Doboj			N EE		
**************************************			Study pr Profile: Ir	ogramme: Tram formatics in traf	c fic		1 h	AOEOJ		
OL EVEN		II cyc	e		I year of stud	V		50		
Course title			DESIG	OF COMPUTER	RNETWORKS	/				
Department		Department of	computers,	information technol	ogies and biotechnol	ogy, ETF, Uni	versity of Eas	t Sarajevo		
Code			Co	urse status	Semes	ter	ECT	S credits		
SAF12SI03224616	5,0311		electi	ve			6,00			
Professor/s		PhD Gora	n Jauševa	c, Assistant Profes	ssor					
Associate/s		PhD Gora	n Jauševa	c, Assistant Profes	ssor					
Weekly	hours	1		Individual s	tudent hours (pe	r semester)	Stud co	ent workload efficient S₀		
L	TE	LE		L	TE	LE		S₀		
3	1		1	63	21	21		1,4		
Total teache	er workload	(hours, per s	emester)		Total student wo	rkload (hour	s, per semes	ster)		
W = 3*15-	<u>+ 1*15+ 1*1</u>	5=45 + 15 +	15 = 75		= 3*15*1,4+ 1*15*1	,4+ 1*15*1,4	4=63+ 21 + 2	21 = 105		
	I otal workle	bad: W+ I= L	lopt= 75+ 1	05 = 180 hours p	er semester					
		By master	ing this coi	urse the student w	vill be able to / will t	be able to:				
Course aims and	learning	1. Apply	the acquir	ed knowledge in p	practice,	l inconstance				
outcomes	•	2. Identi	different n	ates and solves p	roblems of practica	importance)			
		3. apply	inctalle un	elwork prolocols in	notworks					
Proroquisitos		4. pians	ilistalis, ut		Helworks.					
Teaching method	le		and laborat	ory exercises						
I. Introduction to computer networks										
	2. Division and topology of networks									
3. Network hardware and multimedia networks										
4. OSI model and its layers										
5 TCP / IP network protocols										
		6. Ether	net. Token	Ring, FDDI, Gigal	bit Ethernet					
		7. Conn	ection Orie	nted Networks (X.	25. Frame Relay.	ATM) (I collo	oquium)			
Course content		8. xDSL	and CATV	(,	, (· · · · · · · /			
		9. 802.3	(WLAN) w	ireless networks.	802.16 Wireless No	etworks (WN	IAN)			
		10. Blue	tooth 802.	15		,	,			
		11. IPV4	, IPV6 add	ressing modes						
		12. DNS	, ARP prot	ocols						
		13. NAT	protocol, F	irewalls						
		14. Inter	net applica	tions used in traff	ic					
		15. ll co	lloquium							
			Textbook	: (s)						
Author/	s	Name of	oublication	n, publisher		Year	Pag	jes (from-to)		
A.Tanenbaum, D. W	etherall.	Rašunarsk	e mreže, V i	zdanje, Mikroknjiga,	Beograd	2012	2			
W. Stallings		Computer I		With Internet Protoc	ols, Prentice-Hall, Inc	2009)			
S. Bigelow		Mikrokojias	e mreze, in: Beograd	stallranje, odrzavanj	e i popravijanje,	2004	1			
Vii. V.		Computer	Vetworks 1	axmi Publications P	/t Ltd.	2018	3			
Salmon, A., Levesau	ie, W., &	Acal	huard: O			2010	,			
McLafferty, M.		Applied Ne	twork Secur	ity. Packt Publishing].	2017	, ,			
		Ad	ditional re	adings						
Author/	S	Name of	oublication	n, editor		Year	Pag	jes (from-to)		
Evaluation	criteria	Assessment methods Points Percentage								
		Pre-exam	obligations	6						
					attendan	ce - lectures	10	10%		
					laboratory	/ exercises	10	10%		
					Mi	dterm test	20	20%		
					End-o	f.term test	20	20%		
		Final exar	n							
					W	riting exam	40	40%		
		TOTAL					100	100%		
Web sources		http://sf.ue	es.rs.ba/en	g/wp-content/uplo	ads/2024/01/Engle	ski-NPP-II-c	iklus.pdf			
Applicable from		19.10.2023	- 213th ses	sion of the Academ	ic Council, Faculty of	Transport an	d Traffic Engir	neering Doboj		

UNIVERSITY OF EAST SARAJEVO										
	23	Fa	culty of Trai	nsport and T	raffic E	ngineering De	oboj		S Stan	A LEAD
			St	udy program	nme: T	raffic			The	
			Pro	file: Inform	atics in	traffic				AOEOJ
		ll cy	cle of studie	S		l year of st	tudy			
Course title		.	DES	IGN AND AI	PPLICA	TION OF INI	FORMATIO	N SYS	TEMS	
Department		Department	of Compute	er and Inform	nation S	cience and B	Bioinformatic	SEIF	East Saraj	evo
Code	0044		Co	urse status		Se	mester		ECI	S credits
SAF125103224716	0,0311	Žalika Otian	elect	IVe Drofoccar			I		6,0	
Professor/s	PhD	Zeljko Stjepi Želiko Stiepi	anović, Full	Professor						
ASSOCIATE/S	PID		anovic, Full						Stud	ant workload
Weekly	hours			Indivi	dual st	udent hours	(per semes	ster)	CO	efficient S _o
L	TE	LE		L		TE	LE			S₀
3	1		1	63		21	21			1,4
I otal teache	r workload	(hours, per	semester)			I otal stud	ent workloa	d (hour	s, per sem	ester)
	15 + 1115	+ 1°15 = 75		T_11 _ 70	. 105 -	3"15"	1,4 + 1 15 1	,4 + 1"	15~1,4 = 1	05
	1	I Otal V	vorkioad: W-	$+1 = U_{opt} = 75$	= CUI +	- 100 nours p	er semeste	I		
Course aims and	1.0		and methods	of designin	nis uesi a inform	yıı. Dation system	ne on enocif	ic ovam	nloc	
learning outcome	s 2.1	beoretical h	ases for the	develonmer	nt of inf	ormation system	ams in the	field of t	ipies. traffic	
	3 3.1	nformation s	vstems and	their applica	ation in	traffic			anno.	
Prereguisites	Basic	s from and	Database ar	nd Information	on Syste	ems Desian				
Teaching method	s Lectu	ires, auditor	y exercises,	laboratory e	exercise	s, consultatio	ons			
	1. Introduction.									
2. UML standard, basic elements, diagrams.										
	3. [Diagrams of	use cases a	pplied in traf	ffic.					
	4. (Class diagrai	n.							
	5. 5	Sequence ar	id collaborat	ion diagram	S.					
	6. N	lethods of o	bject design	in traffic.						
0	7.1	mplementati	on of inform	ation system	ns in tra	ffiC.				
Course content	8.1	Colloquium	abitaatura a	f traffia infan	motion	avotom dooia		nto		
	9. 10	Application	of object me	thod	mation	system desig	n componei	1115.		
	10.	Design of lo	nistics telev	rommunicati	ions an	d nostal infor	mation syste	ems		
	12.	Design of tr	affic informa	tion system	s usina	class diagram	ns.	01110.		
	13.	Techniques	and method	ds of designi	ing info	mation syste	ms on a col	ncrete e	example.	
	14.	Use of appr	opriate stan	dard softwa	re envir	onment for m	ulti-layered	informa	ation syste	ms architectures.
	15.	II colloquiur	n				-		-	
				Textb	ook (s					
Author/s			Name	e of publication	tion, pı	ıblisher		Year	Pa	ges (from-to)
Fowler, M.		UML ir	n a nutshell					2004		-
		As	sessment n	nethods				Po	oints	Percentage
	atten	dance - lect	ures / exerci	Ses					5	
	positively graded seminar paper 15									
Evaluation criteria	Milderm test 15									
aboratory exercises 10										
	Eino		ral						10	
			Idl						40	
			1	1	10001				100	
Web sources	http://	st.ues.rs.ba	/eng/wp-cor	itent/uploads	s/2024/	J1/Engleski-N	NPP-II-ciklus	s.pdf	aine a sin a D	ah ai
Applicable from	19.10	.2023 - 213th	session of th	ie Academic (ouncil,	racuity of I rai	nsport and Tr	amic En	gineering D	loao

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Informatics in traffic								
				rofile: Infor	matics i	n traffic	N/	K	40E0J	
Course title				DESIG	N OF M		OR SYSTEN	IS		
Department		Con	nputers, informatio	n technolog	jies and	biotechnology, E	TF, Universit	ty of East	Sarajevo	
Code)		Co	urse status	5	Semes	ter	E	CTS credits	
SAF12SI02224	1816,0	320		elective					6,00	
Professor/s	PhD) Gora	an Jauševac, Assi	stant Profes	sor					
Associate/s	PhL) Gora	an Jauševac, Assi	stant Profes	sor			64		
We	ekly ho	ours	15	Indivi	dual stu	Ident hours (per	semester)	31	coefficient So	
2 3	1		1	62		21	21		3 0	
Total teacher	worklo	oad (h	ours per semeste	er)		Total student	workload (h	ours per s	emester)	
W = 3*15 + 1*15	5 + 1*1	5 = 4	5 + 15 + 15 = 75 h	ours	T = 3	*15*1,4 + 1*15*1,	4 + 1*15*1,4	= 63 + 21	+ 21 = 105 hours	
			Total workload	: U _{opt} = 75+ ´	105 = 18	0 hours per seme	ester			
Course aims and learning outcomes	1. S 2. S syst 3. S	tuder tuder ems. tuder	nts should acquire nts should acquire nts should acquire	knowledge knowledge knowledge	about th of the pr about th	e functioning of n inciples, methods e application of n	nicroprocess and tools fon nicroprocess	or system or designin or system	s. g microprocessor s in traffic	
Prerequisites	No.						•			
Teaching methods	Lec	tures.	Auditory exercise	s. Laborato	ry exerci	ses. Seminary w	ork.			
Course content	2. Ir 3. P 4. L 5. P 6. M 7. V 8. C 9. D 10. 11. 12. 13. 14. 15.	 Instructions. xoo instructions. Parallelism and synchronization. Logical processor design. Pipeline of data and control. Memory system hierarchy. Virtual machines. Connecting processors, memory and input / output devices. Design of input / output systems. Parallel program execution. Multi-core processors and multi-processors. Shared memory. Clusters. Multiprocessor network topologies. 								
				Text	book (s)					
Author/s William Stallings			Nam Organizacija i a	e of publica rhitektura ra	ation, pu ačunara:	iblisher Projekat u funko	Ciji 2013	r 3	Pages (from-to)	
David A Pattorson or	nd lob	n I	Computer	vou 9-tog IZ	uanja. C	v⊏ I. Beograd.	ho			
Hennessy		II L .	hardware/softwa	re interface	4th edit	ion	2012	2		
				Addition	al readi	nas	- I	I		
Author/s			Na	me of publi	cation,	editor	Yea	r F	Pages (from-to)	
Kip R. Irvine			Assembly langu Pearson Educa Jersey, USA.	age for x86 tion, Inc., l	6 proces Jpper S	ssors (6th edition Saddle River, Ne	n). ew 2011	l.		
			A	ssessment	tmetho	ds		Points	Percentage	
	Pre	-exan	n obligations							
					atter	tively graded as	/ exercises	10	10%	
Evaluation criteria					posi	uvery graded sen		40	40% 10%	
Evaluation criteria laboratory exercises 10 10%								10 /0		
Final exam										
Written exam 40 40%								40%		
	TOTAL 100 100%									
Web sources	http	://sf.u	es.rs.ba/eng/wp-c	ontent/uploa	ads/2024	1/01/Engleski-NP	P-II-ciklus.po	df		
Applicable from	19.1	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering Doboj								

ST J WCTOWHO		UNIVERSITY OF EAST SARAJEVO									
	S.		Faculty of Tra	nsport and Tra	ffic Eng	ineering Doboj			Salahas	HH Dan	
- YNC			St	udy programm	ne: Trai	ffic			H°()	A LEH	
			Pro	file: Informati	ics in tr	affic			the a	DEOJ	
875 4583 JO N	/		II cycle			I year of study					
Course title			E	LECTRONIC	SYSTE	MS IN TRAFFIC					
Department		Inforn	nation and Communi	cation Systems	s in Trat	ffic, Faculty of Tran	sport a	nd Traf	fic Engineeri	ng in Doboj	
Code	0.4.4		Co	urse status		Semest	ter		EC	TS credits	
SAF12S103222016,0)311 DhD I	Notoče	elect	IVE					6,0		
Associate/s	PhD	Nataša	a Đalić								
ASSOCIATE/S	שווין	valaso							Studen	t workload	
Weekly	hours			Indivi	idual st	udent hours (per s	semes	ter)	coeffici	ent So	
L	TE		LE	L		TE	L	.E		So	
3	1		1	63		21	2	<u>2</u> 1		1,4	
Total teacher worklo 1*15 = 45 + 15 + 15	ad (hours, = 75 hours	oer se	mester) W = 3*15 +	1*15 +		Total student T = 3*15*1,4 + 1*15	worklo 5*1,4 + ł	ad (hou 1*15*1 hours	ırs, per seme ,4 = 63 + 21	ester) + 21 = 105	
	Total	worklo	ad: W + T = Uopt = 7	75+ 105 = 180	hours p	er semester					
-	The s	tuden	t will acquire:								
Course sime and	1. t	heoret	tical knowledge of tel	ecommunicatio	on syste	ems and networks a	and the	irapplic	ations in traf	fic and transport,	
Lourse aims and	2. 6	experti	se in public broadcas	ting systems (I	RDS, D/	AB) in traffic from pu	ublic br	oadcas	ting systems	(RDS, DAB) in traffic	
icuming outcomes	3.	nowle	dge in the field of se	nsor and ad-ho	oc netwo	orks for traffic moni	toring a	and reg	ulation,		
	4.	nowle	dge of systems and	networks inten	ded for	modern traffic and	transpo	ortsyste	ems.		
Prerequisites	No										
leaching methods	Lectu	res, a	uditory exercises, lab	oratory exercis	ses, cor	sultations					
		elecor	nmunication systems	and networks	and the	eir potential applicat	tions in	traffica	and transport	•	
	2 Application of public broadcasting systems (RDS, DAB) in traffic										
	3 3 4 N	PUDIC	c networks for mobile		ns						
	4 10	Eived	communications for t	ID notworko	Jups						
6 Virtual Private Networks											
	7 7	Radio	over optics (ROF)								
Course content	8 S	ensor	and ad-hoc networks	s for traffic mor	nitorina	and regulation					
	9 9	Syste	ms designed for safe	traffic.							
	10 S	atellite	e communication syst	ems							
	11 V	ehicle	positioning and navi	gation systems	5						
	12 D	edicat	ed radio networks for	data transmis	sion (M	OBITEX, TETRA, T	RAXY	s, ard	IS, RICOCH	ET, ARRAY).	
	13 D	edicat	ed Short Range Con	nmunications in	n Road	Traffic (DSRC)					
	14 G	SM-R	- global system of m	obile commun	ications	for railway applicat	tions				
	15 A	ir tran	sport communication	s, River inform	nation se	ervices.	_	_			
			Textb	ook (s)			- h/			(5 ()	
Author/s	Karahov	0	Name of publicatio	n, publisher	ohnolog	ion for Smort	Ye	ar	Ра	ges (from-to)	
H Maune H & Re	hder G	0.	Millimeter-wave Svs	tems Cambrid	lae Univ	ersity Press		2022			
Gumbo, T., Movo, T.			Urban Public Tran	sport System	is Inno	vation in the Fo	urth				
Ndwandwe, B., Risin	, nati, B.,		Industrial Revolution	Era: Global S	outh			2022			
& Mbatha, S. G.			Perspectives, Reflect	tions and Conj	jectures	. Springer Nature.					
M. A. Chowdhury, A.	Sadek,		Fundamentals of In	telligent Trans	sportatio	on Systems Plann	ning,	2003			
			Artech House,					2000			
H. Lehpamer,			REID Desing Princip	ies, Artech Ho	use,	oppiques Miles		2008			
p. Lavergant, M. Sylv	/ain,		Radio wave Propag	auon: Principle	es and 1	echniques, Wiley,		2000	Dointo	Dercontore	
	Pro. o	xam o	hligations	enious					POINTS	reicentage	
	110-0	Auri U	Sigutorio		:	attendance - lecture	es / exe	ercises	10	10%	
					po	sitively evaluated s	eminar	paper	10	10%	
Evelvetien witer						Mic	dterm	test	15	15%	
Evaluation criteria End-of.term test 15 15%						15%					
laboratory exercises 10 1						10%					
	Final	exam									
		Theoretical 40 40%						40%			
	TOTA	L							100	100 %	
Web sources	http://	sf.ues	.rs.ba/eng/wp-conter	it/uploads/202	4/01/En	gleski-NPP-II-ciklus	s.pdf	<i>(</i> , –	· · -		
Applicable from	19.10	.2023	 213th session of th 	e Academic Co	ouncil, F	 acuity of Transport 	t and T	rattic E	ngineering D	odoj	

SUMMER SEMESTER – II CYCLE

UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Road Transport and Traffic III cycle I year of study										
Course title				II Cycle			ay STS			
Department		Roa	ad Trans	sport and T	raffic- Faculty of	Transport and Traff	ic Engineerin	a		
	Code	1 1 100		Co	urse status	Semes	ster	9	ECTS	6 credits
SAF12SD	03218926.	0320			elective					6.0
Professor/s	Ph	D Dra	gan Sta	nimirović						-) -
Associate/s	Ph	D Drag	gan Sta	nimirović						
	Weekly h	ours			Individual	student hours (pe	r semester)		Stude coe	ent workload efficient S₀
L	TE			LE	L	TE	LE	-		S₀
3	2			0	3*15*1,4=63	2*15*1,4=42	0*15*1,4=	0		1,4
l otal tea	icher workl	oad (h	nours, p	er semeste	r)	I otal student	workload (h	ours, pe	er sem	ester)
	315 + 2	15 + ($\frac{0^{-15}}{-15} =$	/5 	UT-11 - 75 40	<u>3°15°1,4</u>	+ 2°15°1,4 +	0~15~	1,4 =10	5
	1/	oquirir		Orkioad: W	$+1=U_{opt}=75+10$	= 180 nours per se	emester	ool troff	ia dama	nd models
Course aims and learning outcome	s s 2. I fore 3. A traf 4. A effe	nplem castin cquisi ic den cquirir cts an	entation, g. tion of sk nand and ng knowl d for the	improveme tills determin traffic supp edge in the f alignment o	nt and developmer ing interdependen ly. ield of using mode f transport demand	t of mathematical and cies between indicato m computer programs and supply	d statistical me rs of socioeco s application fo	ethods for nomic d or the te	or the tra levelopr sting tra	affic demand nent, land using, ansport policy
Prerequisites	No	speci	fic prere	quisities						
Teaching metho	de Leo	tures	, practic	al laborato	y and computation	onal exercises. This	course enal	oles stu	Idents	to perform
reaching metho	ind	epend	lent ass	ignment se	minar paper and	examination throug	gh partial exa	minatic	ons.	
Course content	 Course content 2. Temporal and spatial concentration of demand: causes and consequences. 3. Basic concepts of prediction and forecasting. 4. The importance and role of forecasts and / or prediction of traffic planning. 5. Methods and procedures of forecasting: time series, regression analysis, cross classification - category an 6. Application of the theory of probability to forecast traffic demand. 7. Statistical evaluations of forecast results. 8. Basic concepts and definitions of traffic supply, transport ability of vehicles, supply elements of transport networks. 9. Alignment methods of transport demand and supply. 10. Critical analysis of classical four step model. 11. Target modal split model. 12. Activity based models. 13. Tour-based models. 14. Computer programs for testing and simulation of the harmonization effects of transport demand and supply. 15. Appraisal of transport models. 								egory analysis.	
A 4 h .			1	News	I EXTDOOK	(S) muhliahan	Vee		Dea	an (fram ta)
	or/s			Name	e of publication,	publisher	Yea	r	Pag	es (from-to)
L G	msen,		Modell	ing Transpo	rt, Wiley, Chicheste	er	2011			
2.0.			I		Additional re-	dinas				
Auth	or/s			Nar	ne of publicatio	n editor	Yea	r	Pag	es (from-to)
F.Koppelman, C.Bl	nat		A sel Multino Transo	f Instructing omial and N	g Course in Milested Logit Mode	ode Choice Modeli Is, U.S. Department	ng: of 2006	.	i ug	-
Banister, D. Transport Planning, Spon Press, New York 2002.						-				
			, ~r	A	ssessment met	nods		Poi	ints	Percentage
Evaluation criteria Pre-examination obligations Evaluation criteria Lecture attendance 5 Exercise attendance 5 Final examination Term paper 20 Final examination Final exam 70										
Web sources	httr	.//sf.∪2	as rs hal	ana/wn_cont	ent/unloade/2024/0	1/Engleski_NIPP_II_oik	dus ndf			l
Applicable from	10	10 200	50.10.Ud/0		the Academic Carrie	nichyleski-INPP-II-CIK	Nus.pui	Enaina	orina D	oboi
Applicable from	19.	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering Doboj								

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Road Transport and Traffic Il cycle Il cycle Il cycle TRAFFIC REGULATION AND MANAGE					oj dy					
Course title		.			JLATION AND I	MANAGEMEI	NT				
Department	RO	ad Transport a	and Traffic- Facul	ty of Tra	Insport and Traff		g F(TS credite			
SAF12SD03219	026 0320		elective	1	Jenies	סוכו		6 0			
Professor/s	PhD Ma	rko Subotić	0.000110					0,0			
Associate/s	PhD Du	nja Radović St	ojčić								
Wee	kly hours		Indivi	dual stu	ident hours (pe	r semester)	Stu	udent workload coefficient S₀			
L	TE	LE	L		TE		<u> </u>	S _o			
3 Total tagahary	2 vorklaad (0*15*1,4=(1,4						
3*15	5 + 2*15 +	0*15 = 75	lester)		3*15*1,4	+ 2*15*1,4 +	0*15*1,4 =	=105			
		Total workloa	ad: W+T=U _{opt} = 7	<u>5+105=</u>	180 hours per se	emester					
Course aims and	1. knowledge of concepts and definitions of traffic regulation and management										
learning outcomes	3. Students master certain tools for traffic management										
······································	4. They	4. They apply the acquired knowledge in practice									
Prerequisites	None	None									
Teaching methods	Lectures	Lectures, auditory exercises, laboratory-computer exercises and demonstration exercises on the street network. Mastering the material: learning, tests, assignments and consultations									
Course content	2. Devel 3. Traffid 4. Depe 5. Traffid 6. Traffid 7. Traffid 8. Princi 9. Traffid 10. Reg 11. Traff 12. Traff 13. Spec 14. Fund 15. Dire	opment of a sy c management dent and sem c management c management c management ples and proce c management ulation and ma fic management c management c management c management c management dic management c management dic managemen	ystem for regulati tools ii-dependent syst via classic detect via video surveil with help of rada dures of traffic n system planning inagement of traffic nt on city roads a nt on the street no opment of the sy	ing and i tems ctors and llance ar system hanagen fic at isc nd corri- etwork on of the stem for	d controllers ns nent lated intersectio dors introduction of tu	ns raffic manage <u>n in the future</u>	ment syste	ems			
A 4h			l ext	000k (S)		Ver)			
Autnor/s		Регуписани	vame or publica	ιιιοπ, ρι		OM Year	P	ages (from-to)			
Ђорђевић Т.:		СИГНАЛИЗАЦ	ијом, Институт з	апутев	е, Београд	1997		-			
Washinton D.C.:		Highway Ca Board	apacity Manual,	Transp	ortation Resea	^{rch} 2011		-			
			Assessment	metho	ds		Points	Percentage			
	Pre-exa	mination obliga	ations								
						attendance		5 %			
						activity	5 10	5 %			
_					Sei	ninar naner	20	20 %			
Evaluation criteria					M	idterm Test	15	15 %			
					End of th	e Term test	15	15 %			
	Students	s who pass all	tests are exempt	ted from	the written part	of the examin	ation.				
	Final ex	am									
					Final exa	am (written)	6U 100	6U %			
Web sources	http://sfu	es.rs.ba/eng/wn	-content/unloads/2	2024/01/F	naleski-NPP-II-cil	dus.pdf	100	100 /0			
Applicable from	19.10.20	23 - 213th sess	ion of the Academi	c Counci	I, Faculty of Trans	port and Traffic	Engineerin	ng Doboj			

A CONTRACTOR OF A CONTRACTOR		UNIVERSITY OF EAST SARAJEVO									
			t transport and tr	affic Engineering			N III				
*82°		Profil	e: Road Transpo	rt and Traffic		L					
4580 30 500		II cycle		I year of stud	ly		ACROS -				
Course title	Der	TR	AFFIC DESIGN -	ENGINEERING O	F STREET S	SYSTEMS	ring				
Department	Dep		ransport and Tran	Semes	sport and Tra ter		ring IS credits				
SAF12SD03219	126,0320		elective				6,0				
Professor/s	PhD Mar	ko Subotić									
Associate/s	PhD Dur	ija Radović Stojčić									
Wee	kly hours	I	Individual s	tudent hours (per	semester)	Stu	dent workload befficient So				
	TE	LE	L	TE	LE	0	S₀				
J Total teacher v	Z workload (ł	U Jours per semeste	r)	Z 15 1,4=42 Total student		U Durs ner sei	I,4 nester)				
3*15	5 + 2*15 +	0*15 = 75	')	3*15*1,4	+ 2*15*1,4 +	· 0*15*1,4 ='	105				
Total workload: W+T=U _{opt} = 75+105= 180 hours per semester											
	1. knowledge of research methodology and design of advanced solutions in traffic										
Course aims and	2. knowle	edge and application	on of advanced so	lutions in the field (of HS, VS, LS projects) for	S advanced so	olutions				
learning outcomes	4. indepe	endent work on cal	culations and optir	nization of more co	mplex svste	ms of light s	ianals				
Prerequisites	Complete	ed the course Traff	ic Design I cycle			<u></u>	.g				
Teaching methods	Lectures	Lectures, debates, graphic exercises, independent seminar papers									
	1. Introdu	I. Introduction, spatial program elements, advanced approach to design									
	2. Paven	2. Pavement and pavement speech - examples 3. Engineering of street systems, complex intersections									
	4. Development and application of vertical signaling, advanced systems										
	5. Develo	opment and application	ation of horizontal	signalization, adva	nced solution	ns					
	6. Develo	opment and application	ation of light signal	s on streets and ro	ads, telemat	tics, etc.					
Course content	7. Comp	lex light signal man	agement systems	, zones and line co	ordination						
Course content	9 Conve	entional and uncon	yn settiements, pr ventional intersect	ion solutions	g						
	10. LOW	COAST measures	for roads and roa	id passes through	settlements						
	11. Stree	et furniture (street fe	erniture), road ligh	ting							
	12. Secu	rity of public space	S.								
	13. Huma 14. Evan	an engineering in c	ice in street engin	eerina							
	15. IT en	gineering on the st	reet network, citie	s of the future							
			Textbook (s)							
Author/s		Name	e of publication,	oublisher	Yea	r Pa	ges (from-to)				
Stephen Ezell		A Concise Encyclo	rtation Systems	fic Pergamon Press	2010).	1 - 45				
Papul Kala		On-Road Intelligen	t Vehicles - Motion	Planning for Intellige	ent 2016	·.	1 502				
		Transportation Sys	tems (конгрес)		2010).	1 - 503				
George Papageorgiou, A Maimaris	Athanasios	Modelling, Simulat Systems	ion Methods for In	telligent Transportati	on 2006	õ.	101 - 119				
Walloth, Christian, Gu	rr, Jens	Understanding Co	omplex Urban Syst	ems: Multidisciplina	ary 2014	l.	-				
Intelligent Transportation	Svstems	ITS Photos Courte	esv of USDOT 201	5 – 2019 STRATEG			4 00				
(ITS) - Joint Program Offi	ce (JPO)	PLAN	,		2014	·.	1 - 82				
A			Additional rea	dings	Ver						
Аитног/s		Nar Часопис ТЕХНИК	ne of publication A – селарат САОБ	, editor PATAJ	2011	r Pa	ges (from-to)				
Српско друштво за путе	Be	Часопис Пут и сас	браћај		2011		-				
EUROFILE		Часопис WORD H	IGHWAYS	- d-	2011		-				
	Assessment methods Points Pere										
	attendance 10 10 %										
Evaluation criteria positively graded semester paper 30 30 9						30 %					
	Final exa	am	•								
				Final exa	am (written)	60	60 %				
Webecurren	IOTAL	no ro halanahun ac-+	opt/uploada/2024/0	Englocki NDD II -	luc odf	100	100 %				
Applicable from	19 10 202		the Academic Cour	ICIL Faculty of Trans	ort and Traffi	c Engineering	Doboi				
				,			j				

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programem: Traffic Profile: Railway traffic II cycle I year of study						A A A A A A A A A A A A A A A A A A A				
Course title			R	ISK ANALYSIS							
Department	Transport En	gineering - Fac	ulty of Transport and	Traffic Engineering D	oboj						
Code		Co	ourse status	Semest	er		ECTS	6 credits			
SAF12SZ03220426,0311		electiv	e 4				6.00				
Professor/s	PhD Ratko Đuričić,	Full Professor									
Associate/s Neekly hours	ASc Sanja Simić		Individual s	tudent hours (per se	emester)		Stude	nt workload ficient S₀			
L TE	L	E	L	TE	LE			L			
3	1	1	3*15*1,4=63 1*	15*1,4=21 1*	*15*1,4=21	1,4					
Total teacher workload (hours, hours	urs, per semester)3*15 + 1*15 + 1*15 = 75 Total student workload (hours, per semester)3*15*1,4 + 1*15*1,4 + 1*15*1,4 = 105 hours										
		Fotal workload:	$W+T=U_{opt} = 75 + 105 = 100$	180 hours per semest	er						
Course aims and learning outcomes	d By mastering this course the student will be able / able to: 1. Perform risk identification; 2. Assess and manage risk; 3. Risk management at the enterprise level; 4. Apply the acquired knowledge in practice.										
Prerequisites	None										
Teaching methods	ectures, auditory a	nd calculation e	xercises, consultations								
Course content	 Risk analysis Modeling and Risk assessm of options, ro Static and ad Risk modeling The impact of Risk modeling The concept of Risk evaluation Financial estimation Financial estimation Risk managed Integral risk managed Incorporate mathematical estimation Incorporate mathemathmatical estimation Incorporate mathematical	and methods fo simulation of ris ent and risk mail le of cost / bene aptive risk contro g - uncertainty, p uncertainty on of acceptable ris in: an overview of nates in decision of uncertainty, ment in a neutra nanagement: sca ultiple objectives ent and risk ma k management rrnal and extern	r risk analysis sk as a basis for risk mai hagement. Evaluation, a fit analysis of strategies probability of events, sim decision making. Ways of k and social norms. Qua of the basic principles of a making - present value, l sense and under the in enarios and Total consect is into risk analysis and r nagement during the intu to reduce impacts on hal factors Textbook (s)	nagement cceptability, risk meas ulations, "what-if", "de of making decisions. litative and quantitativ financial managemer rate of return on capit fluence of risk percep quences. nanagement roduction of new tech organizational structu	ures, possibility ecision tree". ve safety object nt. al, capital flow. otion. nologies. re and financi	y of re tives. Proje	duction, ev ct planning formance o	aluation and financing due to potential			
Author/s		Na	me of publication, publication	isher	Year		Pac				
Dale F. Cooper. Stephen Grev	Author/s Name of p				Year		r Pages (from-to)				
Project Risk ManagementGuid	Geoffre	ev Ravmond. Ph	il Walker		2004	Dale F. Cooper, Stephen Grey Geoffrey Raymond, Phil Walker 2004 Project Risk ManagementCuidelines Managing Risk in Large Projects and ComplexProcurements, John 2004					
	Geoffre elines Manag Wiley	ey Raymond, Ph ing Risk in Large	il Walker e Projects and Complexi	Procurements,John	<u>2004</u> 2004			es (from-to)			
	Geoffre elines Manag Wiley	ey Raymond, Ph ing Risk in Large Assessment m	il Walker e Projects and Complexi ethods	Procurements, John	2004		oints	Percentage			
Evaluation criteria	Geoffre Manag Wiley Pre-exam obligation	ey Raymond, Ph ing Risk in Large Assessment m s	il Walker e Projects and Complexi ethods	Procurements, John Attenda Positively evaluated	2004 2004 ance - lectures seminar paper Exam/test	P 10 20 30	l <mark>oints</mark>))	Percentage 10% 20% 30%			
Evaluation criteria	Geoffre elines Manag Wiley Pre-exam obligation	ey Raymond, Ph ing Risk in Large Assessment m s	il Walker e Projects and Complexi ethods	Procurements, John Attenda Positively evaluated	2004 2004 ance - lectures seminar paper Exam/test	P 10 20 30	ioints	Percentage 10% 20% 30% 40%			
Evaluation criteria	Geoffre elines Manag Wiley Pre-exam obligation	ey Raymond, Ph ing Risk in Large Assessment m s	il Walker e Projects and Complexi ethods	Procurements, John Attenda Positively evaluated Fina	2004 2004 ance - lectures seminar paper Exam/test al exam(orsl)	P 10 20 30 40	Points)))))))	Percentage 10% 20% 30% 40% 100%			
Evaluation criteria	Geoffre elines Manag Wiley Pre-exam obligation Final exam	epg/wp-conter	il Walker e Projects and Complexi ethods	Procurements,John Attenda Positively evaluated Fina	2004 2004 ance - lectures seminar paper Exam/test al exam(orsl)	P 10 20 30 40 10	Points))))) 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Percentage 10% 20% 30% 40% 100%			

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18.			Faculty of 1	ransport and Traffic En	gineering Doboj		28	N FE		
• 82°	_		,	Profile: Railway traf	fic		L			
1945 4.50° 30 558	- F		II cvcle		l vear of study		1	4060		
Course title				MODELING IN RAILV	VAY TRANSPORT					
Department	Т	ransport Engir	neering - Faci	ulty of Transport and	Traffic Engineering [Doboj				
Code			Co	ourse status	Semes	ter	ECTS credits			
SAF12SŽ03220526,03	11		electiv	el 4	II		6.0	00		
Professor/s	PhD Pre	edrag Jovanov	ić, Associate	Professor						
Associate/s	Vladimir	r Malčić, Senic	or Assistant							
Weekly hours	6			Individual	student hours (per s	emester)	5	coefficient S₀		
L 1	ſE	LE		L	TE	LE		L		
3	1		1	3*15*1,4=63	*15*1,4=21 1	*15*1,4=21		1,4		
Total teacher workload (hours, per semester)3*15 + 1*15 + 1*15 = 75 hours Total student workload (hours, per semester)3*15*1,4 + 1*15*1,4 = 105 hours										
	Total work	kload: W+T=U	_{opt} = 75 + 105	= 180 hours per seme	ster					
	Basic a	aim of the su	ibject is to e	nable students to ap	ply different models	for railway tra	ansport an	d traffic optimization of		
	organiz	ation, technol	ogy, and capa	acity. After the course	each student should	be able tound	erstand and	describe basic methods		
Course aims and	for solv	ing the problem	ns of railway of	organization and techno	logy and to apply spe	ecific optimizati	on model. I	Also, student should be		
learning outcomes	able to	understand a	nd use specific related to on	IC orations recearch and	statistics. The best st	udante will ha	abla ta dafi	no a problem and solve		
	it by cor	by contemporary software tools and methods.								
Prereguisites	None	ntomporary oc								
Teaching methods	Lectures	s, auditory exe	ercises, semina	ary work, consultations						
	1. G	Senerally about	Modeling							
	2. Generally about Prediction and selecting factors,									
	3. M	lethods and M	odels of Predi	ction						
	4. Pl	hase in proces	s of predictior	n and application methor	ods and models					
	5. 0	ptimization of	Capacity							
	0. IVI	rethod "Wonte	Carlo	on and Assignment						
Course content	8 10		pacity Allocation	on and Assignment						
	9. B	asic in Decisio	n Theory							
	10. D	ecision in Risk	Condition							
	11. M	Iulti-Criteria De	ecision Making	(MCDM)						
	12. E	xamples of MO	CDM							
	13. M	lethods of mul	ticriteria analy	sis						
	14. A	pplications of I	Multi-Criteria A	Analysis in Railway Tra	nsport					
	15.1	colloquium	Textbook (s	4						
Author/s			Nai	,, me of publication, pu	blisher	Year	•	Pages (from-to)		
		Modeling	in rail traffic (Modeliranie u železnič	kom saobraćaju). Facu	lty coor				
Mirko J. Cicak:		of Transp	ort and Traffic	cengineering and ŽELN	IID, Belgrade	2003	5 1	1-28; 31-75; 463-502		
Čunić M., Pao Tumala V M.		Contemp	orary decision	making - methods and	d application (Savreme	eno 1007	,	1 57: 071 088		
	-	odlučivar	nje – metode i	primena), III edition, F	ON, 1997, Belgrade	1997		1-57, 271-200		
	_	As	ssessment m	ethods			Points	s Percentage		
	Pre-exa	m obligations					40	400/		
	Attenda	ince during lec	tures				10	10%		
Evaluation aritaria	Positive	ely evaluated p	roject work			Test (tesks)	20	20%		
Evaluation criteria						Test (theory)	20	20%		
	Final ev	am					20	20 /0		
		Mulli			Fir	al exam(oral)	30	30%		
	Total				111		100	100%		
Web sources	http://st	f.ues.rs.ba/er	ng/wp-conter	nt/uploads/2024/01/F	naleski-NPP-II-ciklu	s.pdf		10070		
Applicable from	19.10.20	023 - 213th se	ssion of the A	cademic Council, Facu	Ity of Transport and T	raffic Engineerii	ng Doboj			

Star Tueromon			UNIVERSITY OF EAST SARAJEVO						2005		
·18·			Faculty o	of Transport and	d Traffic	Engineering Doboj			NY THE		
**************************************				Study prog	ramme: · Logisti	I ramic					
275 4.543 30 1.5 ⁴³			ll cycle	T TOING.	Logisu	l vear of study		ES.	ΔΟΕΟΙ		
Course title			SPE	CIAL AREAS	OF CITY	LOGISTICS					
Department		Transport Engi	ineering - Facu	Ity of Transpor	t and Tr	affic Engineering Doboj					
Code			Co	ourse status		Semeste	r	ECT	S credits		
SAF12SL03221426,03	320		electiv	re 3		I		6.00			
Professor/s		PhD Sne	ežana Tadić, A	ssociate Profes	ssor						
Associate/s		PhD Sne	PhD Snežana Tadić, Associate Professor						Chudont		
Weekly hour	S			1	Individu	al student hours (per s	emester)		workload soefficient S₀		
L	TE	LE		L		TE	LE		S₀		
3	2		0	3*15*1,4=63		2*15*1,4=42	0*15*1,4=0		1,4		
Total teacher workload (hou	urs, per s	emester)3*15 +	+ 2*15 +0*15 =	: 75	Total stu 105	ident workload (hours, p	er semester)3'	*15*1,4+ 2*15	*1,4+ 0*15*1,4=		
	Total wo	orkload: W+T=U	J _{opt} = 75 + 105 :	= 180 hours pe	er semes	ter					
Course sime and looming	_	1. D	efines the stru	cture of the city	y logistic	s database;		ting althe averta			
Course aims and learning	}	2. 0	 Choose the optimal concept of city logistics for individual activities and the entire city system; Creates intermedial colutions for different structures of logistics requirements in the city. 								
outcomes		3. 0 4 lo	 Creates intermodal solutions for different structures of logistics requirements in the city; Identifies and quantifies the effects of the city logistics solution 								
Prereguisites		None									
Teaching methods	ectures, tutorials, case studies, debate classes										
1. Integrated concepts of city logistics;											
		2. C	concepts of city	logistics of tra	de and i	ndustrial companies;					
		3. C	concepts of city	logistics of co	nstructio	n and service companies	S;				
		4. C	Concepts of city	forming the sit	nical taci	lities, cultural, administra	itive institution:	s, etc.			
		р. IV С. Т	echniques and	methods for d	y logistic atarminir	s periorinance base,	logistics:				
		7. N	lodeling of city	logistics flows	through	the city logistics termina	. Colloquium '	1.			
Course content		8. Ir	ntermodal trans	sport systems in	n city log	istics.					
		9. U	9. Underground transport systems.								
		10. A	10. Application of hub & spoke concept in city logistics.								
		11. T	11. The concept of integration of courier-express shipments in the city.								
		12. N	12. Models of justification for the construction of a city logistics terminal.								
		14.0	ity logistics and	d sustainable o d smart cities	ily devel	opment.					
		14. 0 15. E	xamples of wo	rld experiences	s in citv l	oaistics solutions. Colloc	uium 2.				
			Textbook (s)	, .	<u>- j</u>					
Author/s			Na	me of publica	tion, pu	blisher	Year	Pa	ges (from-to)		
Tadić S., Zečević S.		Modelira	nje koncepcija	city logistike			2016		-		
Zečević S., Tadić S.		City logis	stika, Saobraća	ajni fakultet Dob	ooj		2013		-		
		Ac	dditional read	ings							
Hesse M.		The City	as a Terminal	l - The Urban (Context	of Logisticsand Freight	2012		-		
		The Her	rt, Asngate Publ	lisning Lta	tribution	Janagamant Kagan					
Rushton A.			INDOOK OI LOQ Ihlicharc	JISTICS and DIS	Inonnau	Management, Kogan	2010		-		
Evaluation criteria		agert A	ssessment m	ethods				Points	Percentage		
	Preex	xamination obligations									
						attendance - lec	tures/exercise	10	10%		
						S6	eminar paper	30	30%		
						Mic	lterm test	20	20%		
						End-of	.term test	20	20%		
	Final	examination									
	<u> </u>					oral ex	camination	20	30%		
	l ota	l //of.use.rs.l=		ontont/ur-l	o d - 10			100	100%		
web sources	10.10	1/51.UES.[S.D	ba/eng/Wp-0	f the Academ	vaus/2	UZ4/U I/Engleski-i	vrr-II-CIKI	<mark>is.pui</mark> roffic Encir	ooring Doboi		
	19.10	J.ZUZJ - ZIJI	36331011 0			andi, i acuity UI IIdl	isport and 1	ranic Eligili			

			U Faculty o Il cycle	NIVERSITY OF EAST S of Transport and Traffic Study programme: Profile: Logistic							
Course title				GOODS TERMIN	ALS						
Department	Tra	insport Engi	neering - Fac	ulty of Transport and Tra	affic Engineering Doboj						
Code			C	ourse status	Semester	•	E	CTS credits			
SAF12SL0322152	5,0320		electi	ve 3			6.0)			
Professor/s	PhD Sne:	żana Tadić,	Associate Pro	ofessor							
Associate/s Weekly h	PhD Snei	źana Tadić,	Associate Pro	Individu	al student hours (per se	emester)		Student workload coefficient So			
L	TE	LE		L	TE	LE		So			
3	2		0	3*15*1,4=63	2*15*1,4=42 0	*15*1,4=0		1,4			
Total teacher workload	(hours, per sem Total worklo	ester)3*15 + ad: W+T=Uo	- 2*15 +0*15 = opt= 75 + 105	= 75 Total stu 105 = 180 hours per semes	dent workload (hours, pe	er semester)3'	'15*1,4+ 2* <i>'</i>	15*1,4+ 0*15*1,4=			
Course aims and learning outcomes Prerequisites	1. kr 2. to 3. In te 4. ap	 knowledge of concepts and definitions of goods flows to acquaint the student with the basic types and structures of logistics flows and logistics centers Introducing students to the preparation of studies on the structural and spatial functions of various categories of terminals and logistics centers apply the acquired knowledge in practice None									
Teaching methods	lectures	utorials cas	se studies del	hate classes							
Course content	1. 11 2. Ty 3. 0 4. To 5. C 6. A 7. S 8. A 9. To da 10. In 11. C 12. Pi 13. A 14. Q 15. E	ansformatio ypes of freig bjectives of erminal grav riteria and p nalysis of flo tructure of flo nalysis of re echnological angerous go rminal, gooo tegrated free ooperation in rocedure for nalysis and c uantitative-s kamples of e	ns of common ht terminals - development ity zone parar rocedure for s was through th unctions and s quirements fo and spatial ods terminal, is and transpo e zone and lo n logistics cha determining t quantification of patial analysis elaboration of s	logistics centers of freight transport center meters electing the macro and le logistics center subsystems of the freigh r dimensioning of freigh characteristics of logisti container terminal, bord ort center, etc.). gistics center concept lins through the freight a he characteristics of goo of logistic requirements for s of terminal subsystems structural-spatial function	ers micro location of the term t transport center t terminal subsystems cs centers (terminal for er terminal, goods and tra ods flows in the gravity zo or terminal subsystems in s s of various categories of	ninal different type ade center, dis one of the terr deterministic s f terminals and	s of goods, stribution ce ninal stochastic o d logistics o	customs terminal, inter, cross-docking conditions centers			
Author/s			Na	me of publication, pub	lisher	Year		Pages (from-to)			
Zecevic, S.		Robni te	rminali i robno	o-transportni centri		2006.					
		A	ssessment m	ethods			Points	Percentage			
Evaluation criteria	Preexami Final ex	nation obliga	ations		ures/exercise minar paper term test term test	10 20 15 15	10% 20% 15% 15%				
	oral examination 40 40%										
A/.1	l otal		. 1		004/04/5		100	100%			
web sources Applicable from	http://si 19.10.20	r <u>.ues.rs.b</u>)23 - 213t	<u>a/eng/wp-</u> h session c	content/uploads/2 of the Academic Cou	ucil, Faculty of Tran	<u>IPP-II-CIKIL</u> sport and T	<u>us.pdf</u> raffic Eng	jineering Doboj			

Set THETOING			UN	IVERSITY OF E	AST SA	RAJEVO			2	2005	
-18-			Faculty	of Iransport a	nd I raffic	c Engineering			2	N FE	
- SPIC				Study progra	nine: n	anic					
1075 4 Stra 30)		ll cvcle	11011101	iogiotioe	l vear of st	tudv		5	A OEOJ	
Course title	I	NTERMODAL	TRANSPORT	TECHNOLOG	IES	,	,				
Department	Ţ	ransport Engi	neering - Facu	lty of Transport	and Tra	ffic Engineering	Doboj				
Code			Co	ourse status		Se	mester			ECTS credits	
SAF12SL0322162	6,0320	- × T	electiv	ve 4					6.0	00	
Protessor/s	PhD Shi PhD Shi	ezana Tadić,	Associate Pro	fessor							
Weekly h	nours			lr	ndividua	I student hours	(per se	mester)		Student workload coefficient S₀	
L	TE	LE	-	L		TE		LE		So	
3	2	10*45	0	3*15*1,4=63	2	*15*1,4=42	0*	15*1,4=0	45+4 4 01	1,4	
Total teacher workload	(nours, per ser	mester)3" 15 +	- 2″15 +0″15 =	10	lotal stud 105	aent workioad (ne	ours, per	semester)3	15"1,4+ 2"	15 1,4+ 0 15 1,4=	
	Total work	<pre>doad: W+T=U</pre>	_{opt} = 75 + 105 =	= 180 hours per	semest	er					
	1.	knowledge of	concepts and	definitions of inf	termodal	transport	the cor	nmodity flow	e markat	interms of the	
Course aims and	Ζ.	application of	fintermodal te	chnologies	5 00310	iequirements or		innounty now	5 market		
learning outcomes	3.	3. Introducing students to the simulation experiment of the operation of the container terminal									
	4. 6	4. apply the acquired knowledge in practice									
Prerequisites	None	None									
Teaching methods	lectures	ectures, tutorials, case studies, debate classes									
Course content	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Modeling of g Rolling Shelf f Trends and re Analysis and Benchmarking New generative intermodal te Concepts of c Concepts of c Concepts of Requirements Scenarios of s Requirements Simulation ex Introduction to studies	oods flows in i technology equirements for planning of IT g in intermodal ons of intermo erminals connecting mar transport of in s of forming a da for calculating strategic devel for the design periment of co o software pac	ntermodal trans r standards of ir quality performa transport dal transport ne itime and land i termodal termir atabase for IT the logistics cos opment of Euro of telematics s ntainer terminal kages for plann	port networks a ance atworks a ntermoda nals. Op sts of inter pean inter ystems i operatio ing and	vorks I transport units Ind terminals. De al transport. Dry imization and a ermodal transpor ermodal transpor n IT n managing the op	evelopme port con daptation t chains t beration o	ent of a mode cept n of certain n	el for the c modes of erminals. I	ptimal location of transport to IT T terminal location	
Author/s		Name of	f publication.) publisher				Year	Pages	s (from-to)	
Lowe D.:		Intermod	lal freight trans	sport, Elsevier				2005.		-	
Bontekoning Y.:		Hub exc IOS/De	hange operatio Iph	ons in intermod	al hub-a	nd-spokenetwor	ks,	2006.		-	
		A	ssessment m	ethods				I	Points	Percentage	
Evaluation criteria	Preexan	mination obligation	ations								
						attendance	e - lectur	es/exercises	5	5%	
							007	activity	5 15	5% 15%	
		Midterm test 20 20%							20%		
		End-of term test 20 20%							20%		
	Final ex	Final examination									
							oral ex	amionation	35	35%	
	Total								100	100%	
Web sources	http://sf	f.ues.rs.ba/e	ng/wp-conter	nt/uploads/202	<u>4/01/En</u>	<u>gleski-NPP-II-c</u>	<u>iklus.pd</u>	<u>f</u>	<u>.</u>		
Applicable from	19.10.20	023 - 213th se	ession of the A	cademic Counc	ul, Facul	y of Transport a	nd Traffic	c Engineering	Doboj		

SOL Y WCTOWNO		UNIVERSITY OF EAST SARAJEVO						005 JIHH @ARPA				
			i acuity	Study programme: T				A FA				
• *82*				Profile: Logistics			L					
1915 1.583 30 13	III		II cycle		I year of study			UR01				
Course title			LOG	SISTICS ORGANIZATI	ON DESIGN		•					
Department		Transport Eng	ineering - Facu	Ity of Transport and Tr	affic Engineering Doboj							
Code			Co	ourse status	Semester	r	EC	TS credits				
SAF12SL0322172	6,0320		electiv	re 4			6.00					
Professor/s	PhD	Żeljko Stević, /	Associate Profe	ssor								
Associate/s	PhD	Zeljko Stević, A	Associate Profe	ssor								
Weekly h	nours			Individual st	udent hours (per semes	ster)	Student coeff	workload ficient S₀				
L	TE	LE		L	TE	LE	S₀					
3	2		0	3*15*1,4=63	2*15*1,4=42 0)*15*1,4=0		1,4				
Total teacher workload	(hours, per s	semester)3*15 ·	+ 2*15 +0*15 =	: 75 Total stu 105	ident workload (hours, pe	er semester)3	*15*1,4+ 2*15	;*1,4+ 0*15*1,4=				
	Total wo	orkload: W+T=U	l _{opt} = 75 + 105 =	= 180 hours per semes	ter							
	1	. knowledge c	of concepts and	definitions of the scier	nce of organization							
Course aims and lear	ning 2	. Introducing s	students to des	ign in the organization	of logistics							
outcomes	3	. Introducing s	students to mad	cro and micro logistics	models							
D	4	. apply the ac	quired knowled	ge in practice								
Prerequisites	None	ONE aturas tutarials asso atudios debate elessos										
leaching methods	lectu	ectures, tutoriais, case studies, debate classes										
		. Fundamenta	is of organizati	onal science	organization							
	2	Three main	ses of develop	ment of the science of	organization							
	4	Modern theo	vies of organiz	ation and management								
	5	5. The concept and definitions of organization										
	6	6. Organization of logistics										
	7	. Trends and	approaches of	logistics organization								
Course content	8	. Tasks and g	oals of design	in logistics								
	9	. Design of log	gistics centers	Ū								
	1	0. Macro and n	nicro planning a	and design in logistics								
	1	 Methodology 	/ of design and	planning in logistics								
	1	2. Macro and n	nicro logistics n	nodels								
	1	3. Models of st	ochastic quanti	fication of logistics cen	ters							
	1	4. Procedures	for optimizing the	he flow of materials and	d goods by order principle	es						
		5. Methodologi	cal principles o	r designing individual s	ubsystems							
Author/s			Nor	ne of publication, pul	lisher	Voar	Da	ans (from to)				
Autions		Погисти	ка-организаци	іа и менацмент. Биље	ике сапредавања	Icai	10	-				
Станивуко	вићД.:	Нови С	ка-организациј Сал	ја и менаџмент, визве	шке сапредавања,	2003		_				
Rupper	rP·	Transpo	ort, Lager und	Logistic, Verlag Indu	strielleorganisation,	1990		-				
		Zurich	Assessment m	ethods			Points	Percentage				
	Pree	xamination obli	gations									
			0			activity	10	10%				
project 25 2							25%					
	Midterm test 15 15%							15%				
End-of.term test 20 20%							20%					
	Fina	examination										
					oral e	xamionation	30	30%				
	Tot	al					100	100%				
Web sources	http	://sf.ues.rs.	ba/eng/wp-	content/uploads/	2024/01/Engleski-I	NPP-II-cik	lus.pdf					
Applicable from	19.1	0.2023 - 213	Bth session of	of the Academic Co	uncil, Faculty of Trai	nsport and	Traffic Eng	ineering Doboj				

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-18-			Faculty of	I ransport and	I rattic Eng	ineering Doboj			N EE	
÷ 82°				Profile I	onistics					
1315 4 Sto 3	3		II cycle		.09/3//03	l vear of study			0601	
Course title	-		WAR	EHOUSE SYS	TEMS MA	NAGEMENT				
Department		Transport Engi	neering - Facu	ulty of Transpor	rt and Trat	fic Engineering Doboj				
Code			C	ourse status		Semester	r	EC	S credits	
SAF12SL032218	26,0320		Electiv	ve 4				6.00		
Professor/s	PhD Ż	Źeljko Stević, A	ssociate Profe	essor						
Associate/s	PhD Ż	Źeljko Stević, A	ssociate Profe	essor						
									Student	
Weekly	hours				Individual	student hours (per s	emester)		workload coefficient S₀	
L	TE	LE		L		TE	LE		S₀	
3	2		0	3*15*1,4=63	2	*15*1,4=42	0*15*1,4=0		1,4	
l otal teacher workloa	d (hours, per	semester)3*18	5 + 2*15 +0*1	5 = 75	l otal stud	ent workload (hours, pe	er semester)3	*15*1,4+ 2*15	o*1,4+ 0*15*1,4=	
	Total wa	vrkload: W+T-I	L - 75 + 105	- 190 hours n	100 or comost	or.				
		nowledge of c	oncents and d	efinitions of sto	rane svete	ns management				
	2 s	hould enable s	tudents to ma	ster the basic of	concents o	f engineering graphics				
Course aims and	3. s	tudents should	be able to m	aster the basic	software	tools of engineering de	sian with app	lication to the	management	
learning outcomes	of w	arehouse pro	cesses			J	J			
	4. a	pply the acquir	ed knowledge	in practice						
Prerequisites	None									
Teaching methods	lecture	es, tutorials, sp	ecial exercise	at warehouse	system					
	1.	Introduction 1	o storage syst	tems managen	nent					
	2.	Data storage								
	3.	Process man	lagement in w	arehouses						
	4.	Inventory ma	inagement	ande						
	5.	Dimensioning	n of technologi	ious ical elements o	f the ware	house				
	7.	Mathematica	models for a	uantification of	f technolo	pical requirements and	sizing of tec	hnological ele	ements of the	
		warehouse					0. <u>_</u> g 0. 100			
Course content	8.	Theory of qu	euing systems	;						
	9.	Models of sir	nulation of rea	I processes in	warehouse	es				
	10	. Dimensioning	g of technologi	cal elements o	f the stora	ge system				
	11	. Evaluation of	variant techno	ological solution	ns					
	12	. Multicriteria a	analysis							
	13	Mothods of F	UU I Dromothaa \/							
	14	AHP method								
	10	. /	Textbook (s)						
Author/s			Na	me of publica	tion, publ	isher	Year	Pa	ges (from-to)	
S. Vukičević		Skladišta	a. Univerzitet u	J Beogradu, Sa	aobraćajni	fakultet	1995		- ,	
		A	ssessment m	nethods			•	Points	Percentage	
	Preex	amination oblig	ations						-	
						attendance - lect	tures/exercise	10	10%	
						Se	minar paper	10	10%	
Evaluation criteria						Mid	term test	15	15%	
		End-of.term test 15 15%								
	Final	examination						50	F0 0/	
	T - 4 - 1					oral	examination	50	50%	
Wah any reas	I Otal	//of upp rol		oontont/	loods/2	004/01/Englast:			100%	
Applicable from	10 10	<u>1/51.085.15.1</u>	<u>Ja/eng/wp-</u>	-content/up	min Cou	DZ4/UT/ETIGIESKI-I	NFF-II-CIK	<u>us.µui</u> Troffic Enci	pooring Doboi	
Applicable from	19.10	j.ZUZJ - ZIJ	ui session (л ше Асайе	ոու օսս	IICH, FACULY OF ITA	ISPOIL AND	I I AIIIC EIIQI		

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study program: Traffic					Stallin ogg				
· 82			Profile: 1	Telecommunic	cations	and postal traffic			the	1060J		
Course title			ll cycle			I year of study				2		
Department		Info	rmation and cor	mmunication te		ies			ATION	5		
Dopultion	Code	1110		Course status	6	Semeste	r		ECTS	6 credits		
SAF12S	ST032223	326,0311		Elective		II			6	5,00		
Professor/s		Assistant	professor PhD	Suzana Miladi	<u>ić-Tešić</u>							
Associate/s		Assistant	protessor PhD	Suzana Miladi	ić-lešić					Student		
	Week	dy hours		Ind	ividual	student hours (per	semeste	r)	с	workload		
2		<u>TE</u>	LE	2*15*1 /	1-63	TE 1*15*1 4-21	1*15*1	1-21		S ₀ 1.4		
Total t	eacher w	ı vorkload (h	I Inurs ner seme		+-03	Total student w	orkload (h	,4-21 nurs n	er semi	I,4 ester)		
Total t	3*15 + 1	1*15 + 1*1	5 = 75 hours	5(01)		3*15*1,4 + 1*1	5*1,4 + 1* <i>1</i>	15*1,4	= 105 h	iours		
Total workload: W+T=U _{opt} = 75 + 105 = 180 hours per semester												
Upon completion of the course, student will: 1. Gain theoretical knowledge on selected topics in the field of telecommunications												
Course aims and 2. Be able to perform analysis and synthesis of selected modern communication systems												
learning outco	omes	3. Gain knowledge on the exploitation of modern communication systems										
		4. Gai	4. Gain theoretical knowledge on the application of modern communication systems in traffic and transport									
Prerequisites		None	transport.									
Teaching met	hods	Lectures	ectures, theoretical and laboratory exercises, consultations									
		1. Des	1. Design principles of modern digital telecommunication systems									
		2. Dev	elopment trend	s of modern te	lecomm	unication systems						
		3. Nev	v telecommunic ical transmissio	ation technolog	gies and	services						
		5. Rad	lio communicati	on systems								
		6. Ope	eration of teleco	mmunication s	ystems							
		7. I tes	st									
Course conter	nt	8. IVIOC 9. Into	lligent networks	nication netwo	orks odao-cli	oud concent						
		10. Tele	ecommunication	infrastructure	for the r	needs of intelligent t	raffic svste	ems				
		11. Tele	ecommunication	infrastructure	for the r	needs of smart citie	S					
		12. Inte	rnet access with	nin vehicle com	nmunica	tion systems. IoV p	aradigm					
		13. V2X	communication	ns and loV env	vironmer	it fic management pur	moses Co	mmur	vication	requirements		
		of s	pecific application	ons.	anu lian	ne management pu	poses. Co	mmu	lication	requirements		
		<u>15.</u> II te	st									
				Text	book (s)							
Aut	thor/s		Na Drine i de la CT	me of publica	ation, pu	ublisher	Yea	r	Pag	es (from-to)		
IVI. L. DUKIĆ			Principles of Te	ecommunication	ns, Acad	emic Mind Belgrade	2014	+		-		
M. Elhoseny, A.	E. Hassar	nien	and Intelligent T	ransportation S	ystem Ne	etworks: Emerging	2020)		-		
		<u> </u>	Technologies for	or Connected an	d Smart	Vehicles, Springer						
R. I. Meneguette	e, R. E. De	e Grande,	Intelligent Trans	sport Systems in /ehicular Networ	Smart C	ities – Aspects and	2018	3		-		
				Addition	al readi	ngs	1	1				
Aut	thor/s		1	Name of publi	cation,	editor	Yea	r	Pag	es (from-to)		
			Selected journ	al and confere	ence pap	pers in the field	New	er				
				Assessment	tmetho	ds	Teleas	Poin	ts	Percentage		
		Pre oblig	ations									
					Positiv	ely evaluated semir	ar paper	3	30	30 %		
Evaluation cri	teria						Test I		15	15 %		
	-	Final eva	mination				rest II		10	10 %		
	·		mination		Fir	al examination (or	l/written)	4	10	40 %		
		TOTAL						1	00	100 %		
Web sources		http://sf.	ues.rs.ba/eng/	wp-content/u	ploads/	2024/01/Engleski	-NPP-II-ci	iklus.p	<u>odf</u>			
Applicable fro	m	19.10.202	23 - 213th sessi	on of the Acad	emic Co	ouncil, Faculty of Tra	ansport an	d Traff	ic Engir	neering Doboj		

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Doboj Study programme: Traffic Profile: Telecommunications and postal traffic											
45 4 Stra 30		II cycle		I year of study	y							
Course title	APP	LICATION OF REI	NEWABLE ENERG	Y SOURCES IN	TRANSPOR	T SYSTEM	S					
Department	Infor	mation and Comm	unication Systems i	n Traffic, Faculty	of Transport							
Code	μπα		urse status	Semes	ter	FC	TS credits					
SAF12ST03222526.03	11	elect	tive			6.0						
Professor/s	PhD Slobo	odan Lubura, Full F	Professor			-,-						
Associate/s	PhD Slobo	odan Lubura, Full F	Professor									
Weekly hou	rs		Individual st	udent hours (pe	r semester)	Stude coeffi	nt workload cient S₀					
L 1	Έ	LE	L	TE	LE		S₀					
3	1	1	3*15*1,4=63	1*15*1,4	1*15*1,4		1,4					
Total teacher wo	JIKIDAD (nours, per semester)I otal student Workioad (nours, per semester) $*15 + 1*15 = 75$ hours $3*15*1 4 + 1*15*1 4 + 1*15*1 4 = 105$ hours											
3*15 + 1*15 + 1*15 = 75 hours [3*15*1,4+ 1*15*1,4+ 1*15*1,4= 105 hours												
1(tal workloa	10: VV + 1 = U _{opt} = 7	5 + 105 = 180 hours	s per semester								
	1 monit	ors trends in the field.	d of renewable end									
Course aims and	2. acquires basic knowledge of alternative propulsion in vehicles,											
learning outcomes	3 differs	2. acquires basic knowledge of alternative propulsion in vehicles, 3. differs in the construction of electric vehicles and hybrid vehicles										
	4 monit	 allers in the construction of electric vehicles and hybrid vehicles, monitors the economic aspects of the application of alternative power sources in 										
	transport.	4. monitors the economic aspects of the application of alternative power sources in transport										
Prereguisites	None	None										
Teaching methods	Lectures,	Lectures, auditory exercises, laboratory exercises, consultations										
Course content	and BiH. 2. Legisl 3. Solar 4. Solar 5. Electr 6. Fully e 7. Sourc 8. Charg 9. Mode 10. Cons 11. Spec 12. Ecol 13. HEV 14. Alter 15. Ener	ation. energy: Basic prop energy: Practical e ic vehicles. Types electric vehicles (E es of electricity. Mo jing the battery. So rn heat engines. struction of EV and cifics of EV constru ogy and HEV development trend native energy sour rgy from biomass	perties of solar radia examples. Economic of electric vehicles V). Hybrid Electric N odern batteries and lar cells, fuel cells a I HEV iction ds rces and new fuels	ation. Converting s c significance. Wo /ehicles (HEV) autonomy of elec and reformers	solar energy rld trends. E tric vehicles	into electric	ty.					
Author/s		Name of publicat	tion nublisher		Year	Pa	ges (from-to)					
Labudović. B.		Renewable energy	v sources. Enerav n	narketing. Zagreb	200	2						
		Renewable energy	y sources with a foc	cus on								
Sijivac, D., Simić, Z.		management, text	book, ETF Osijek.	-	200	ŏ						
Evaluation crit	eria		Assessment metho	ods	Poin	ts	Percentage					
	Pre-exam	obligations										
			att	tendance-lecture:	s / exercises	5	5%					
			positi	vely evaluated se	minar paper	15	15%					
	Midterm test 15 15%											
	End-of.term test 15 15%											
	laboratory exercises 10 10%											
	Final exam											
	Theoretical 40 40%											
	TOTAL 100 100 %											
Web sources	http://sf.ue	s.rs.ba/eng/wo-cor	ntent/uploads/2024/	01/Engleski-NPP	-II-ciklus.pdf							
Applicable from	19.10.202	3 - 213th session	of the Academic Co	uncil, Faculty of T	ransport an	d Traffic En	gineering Doboj					

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-18.		Facul	ty of Transpo	rt and Traffi	c Engine	ering Doboj	_	_	2 8	A HERE	
			Study pr	ogramme:	Traffic				H(_		
1945 4.543 30 h)		Profile: In	formatics i	n traπic	Fotudy			The second secon	AOEOJ	
Course title		11 C				NT AND SEDV					
Denartment		Computers	information	technologie	s and hi	otechnology F	TE Univ	ersity o	of Fast Sara	ievo	
Code		oomputore		irse status		Seme	ster		FCTS credits		
SAF12SI03210326	5.0311		electi	ve					6.00		
Professor/s	PhD	Goran Jau	ševac, Assista	ant Professo	or				0,00		
Associate/s	PhD	Goran Jau	ševac, Assista	ant Professo	or						
Weekly	hours			Indivi	dual stu	ident hours (pe	er seme	ster)	Student coeffici	workload ent S₀	
L	TE	L	E	L		TE	LE			S₀	
3	1		1	63		21	21			1,4	
Total teache	r workload	load (hours, per semester) Total student workload (hours, per semester)									
W = 3*15+	$\frac{1}{1} = \frac{3^{15}^{1,4+1}}{15^{1,4+1}} + \frac{15^{1,4+1}}{15^{1,4+1}} + \frac{15^{1,4+1}}{$										
	I otal worki	Dad: VV+ I=	= Uopt= 75+ 1	05 = 180 hc	be able	semester	to				
	By m	Astering the l	is course the basic techniqu	student Will	be able	to / will be able	10: mont				
Course aims and	Ma	ster the has	sic techniques	of maintain	nina tele	communications	s and co	mnuter	networks a	nd services	
learning outcome	s To	To use various application software for management and design of telecommunication networks and services.									
	Opi	net, Cisco F	Packet Tracer	,).			<u>.</u>	••••••			
	4. (Configure a	nd manage th	, ie telecomm	nunicatio	n networks.					
Prerequisites	None)									
Teaching method	s Lectu	ires and lat	boratory exerc	cises							
	1.	ntroduction	. Changing th	e maintena	nce phile	osophy accordir	ng to the	mainte	enance conc	ept	
	2. 6	Processes i	n telecommur	nications							
	3.1	nternationa	I organization	is and stand	lards in	the field of netw	ork and	service	emanageme	ent	
	4. 6	micipies o	rielecommun	ications mai	nageme	nı					
	5.	CP / IP nr	ntocols (Midte	rm test)							
	7.6	Platforms for	or manageme	nt implemen	itation						
Course content	8.1	TU-U recor	nmendations								
	9. <i>F</i>	Application	of the concep	t of network	and se	vice manageme	ent				
	10.	Mana	gement tools								
	11.	SDH r	management								
	12.	ATM r	management								
	13.	GSM	and UMTS ma	anagement							
	14.	Servic End of	e manageme	nt: TOM and							
	15.	Lina-C	Toythook	· (c)							
Author/s		Nam	of nublicati	on nuhlish	her		Ye	ar	Page	es (from-to)	
A Tananhaum D	Wetherall	Rašu	narske mreže	V izdanie.	Mikrokr	iiga, Beograd	100	2012	- i ugi		
	wetheran.	Unde	rstanding Da	ta Commu	inication	s (3rd Edition). J.	2012			
Held, G.		Wiley	& Sons			- (,,	2001.			
Hold C		Interr	networking LA	Ns and WA	Ns (2nd	Edition), J. Wil	ley &	2001			
		Sons						2001.			
Evaluation criteria			<i>e</i> .	Assessment	t methoo	s		Points	P	ercentage	
	Pre-e	exam obliga	ations			_	noc 1-	ture -	40	100/	
						attenda		icoc	10	10%	
		Midterm test 20 20%								20%	
		Imilia 20 20% End_of term test 20 20%									
	Final	Final exam									
	i indi	Writing exam 40 40%									
	TOT	TOTAL 100 100%									
Web sources	http:/	/sf.ues.rs.b	a/eng/wp-con	tent/uploads	s/2024/0	1/Engleski-NPF	P-II-ciklu	s.pdf			
Applicable from	19.10).2023 - 21	3th session o	f the Acade	mic Cou	incil, Faculty of	Transpo	ort and	Traffic Engi	neering Doboj	

ST WCTOWHOL		UNIVERSITY OF EAST SARAJEVO								5	
		Faculty of Transport and Traffic Engineering Doboj							S Stan	A REAL	
		Study programme: Traffic							HINGH		
		Profile: Informatics in traffic							AOS		
15 4 5 to 10 10			I cycle			I year of study					
Course title				APPL	ICATIO	N OF GIS					
Department	Information - Communication Systems in Traffic - Faculty of Transport and Traffic Engineering Doboj								gineering		
Code			Co	urse status		Seme	ster		ECTS	S credits	
SAF12SI03223826,0312	1		elect	ve		II			6.0		
Professor/s	PhD	Ljubiša Prera	adović, Full	Professor							
Associate/s	PhD Ljubiša Preradović, Full Professor										
Weekly hours	S			Individual student		: hours (per semester)			Student coefficie	workload ent S₀	
L T E		LE		L		TE LE				S₀	
3 1		1		63		21	21		1,4		
Total teacher wor	kload	(hours, per s	semester)	Total student wor			workload (hours,	ours, per semester)		
3*15 + 1*1	5 + 1	*15 = 75 hou	irs			3*15*1.4 + 1	*15*1.4 + 1	*15*1.4	4 = 105 h	ours	
Т	otal w	orkload: W+	T=U _{opt} = 75	+ 105 = 180	hours	per semester					
•	After	successfully	mastering	the content of	of the co	ourse, the studer	nt will be at	ole to:			
Course aims and	-mod	eis spatial ol	ojects,	f							
learning outcomes	-aecc	mposes the	elements o	r space,							
Dronomulaitea	-WORK	WITH GIS TOO	DIS								
Prerequisites	None	uraa auditar	, avaraiaaa	laborator / a	voroioo	a concultationa					
Teaching methods	Leciu	lifes, auditory	exercises,	Taboratory e	tome (C	s, consultations					
	Introc	fuction to GI	e ol geolinic S. Basic col	ncents and t	erminol	113). Dav					
	Introduction to GIS. Basic concepts and terminology.										
	Geospatial data Intrastructure. Spatial reference frames.										
	space	ai object inc 9.	doning, ore		, 100101		dolo, goom	iony, io	pology a	ia topography of	
	Decomposition of space elements.										
	GIS system architecture. Space databases.										
Course content	Interpretation and presentation of spatial data.										
Course content	Midterm test										
	Introduction to geospatial data visualization. Spatial analysis. GIS tools.										
	Standardization in the field of geoinformation systems and technologies - OpenGis, ISO TC2										
	Servi	ce Oriented	Architecture).							
	GIS -	three-layer	architecture								
	Appli	cation of stai	ndards in th	e implement	tation of	GIS systems.					
	Appli	calions of G	S systems	in dinerent a	ireas.						
			Toyth	ook (s)							
Author/s			Name of	f nublication	n nuhli	shor		Yoar	Page	s (from-to)	
Additions	Geo	oranhical Inf	ormation Sv	stems and (Comput	er Cartography	Pearson	i cui	i age	3 (IIOII-10)	
C. Jones,	Edu	Education Inc.						1997.			
S. Shekhar, S. Chawla,	Spatial Databases: A Tour. Pearson Education Inc							2003.			
Peter A. Burrough,	Prin	cipi geografs	kih informa	cionih sisten	na,						
Rachael	Grad	đevinski faku	iltet Beogra	d				2006.			
A. McDonnell,											
Keith R. McClov	Res	ource Manag	gament Info	rmation Sys	tems Re	emote Sensing,	GIS and ,	2006			
	Mod	lelling, Taylo	r & Francis					2000.			
	_		Additiona	al readings							
Evaluation criteria	Assessment methods								P	ercentage	
	Pre-e	xam obligati	ons					-	_		
	Attendance - lectures / exercis Positively graded seminar pa							es	5	5%	
								en 1	5	15%	
						M The d	naterm tes	π 1 + 4	ວ ຬ	15%	
	End-or.term test 15							0	15%		
	Final exam								10%		
									10%		
	TOTA	NI						4	. <u>.</u> 	40%	
Web sources	http://	n∟ lefuee re hol		tent/unload	s/2021/)1/Engleski NDC	D_II_ciklue n	u df	50	100 /0	
Annlicable from	10 10	01.000.10.00/	h speeinn n	f the Acader	nic Cou	ncil Faculty of T	Fransnort a	nd Trat	ffic Engin	eering Doboi	
	10.10			I UIC ACAUEI		non, i acuity of I	nanopulla	מושיות	ாட் டாதார		

ST WCTOWNOD		UNIVERSITY OF EAST SARAJEVO							2005		
18 .		Faculty of Transport and Traffic Engineering Doboj						S Stan and Arit			
			S	tudy progran	nme: 1	Traffic		H			
		Pro	ofile: Informa	tics ir	n traffic		A060J				
Course title											
Course lille	Flectronics and Electronic Systems ETE University of East Sarajevo										
Code	P.			uree status		Semester		ECTS credits			
SAF12SI03224926 0311						Geniester		6.00			
Professor/s	PhD Mir	roslav Kost	adinović			•		0,00			
Associate/s	PhD Mir	PhD Miroslav Kostadinović									
Weekly hours				Individu	ual stu	ident hours (per se	mester)	Stuc	lent workload efficient S₀		
L 1	ΓE	LE		L		TE	LE		S₀		
3	1		1 63		21	21		1,4			
Total teacher wo W = 3*15+ 1*1	orkload (h 5+ 1*15:	hours, per s =45 + 15 +	semester) 15 =75		T = 3	Total student worklo 3*15*1,4+ 1*15*1,4+	ad (hours · 1*15*1,4	, per seme =63+ 21 +	ster) 21 = 105		
Tota	l workloa	ad: W+ T= l	Jopt= 75+ '	105 = 180 hou	irs per	semester					
	By mast	tering this o	course the s	student will be	able t	o / will be able to:					
Course aims and	1. Plar	n, install, us	ses and ma	intain wireless	s sens	or networks,					
learning outcomes	2. App	oly different	network pr	otocols in pra	ctice,						
······	3. App	bly the acqu	lired knowle	edge in practic	ce,						
Duous autoites	4. Ider	ntifies, form	iulates and	solves proble	ms of	practical importance					
Prerequisites	Locturo	s and labor	atory ovoro	icoc							
reaching methods	1 Dofi	5 and labor		nts of complex	veone	or notworks					
		view of the	structure of	complex sense	sor nei	tworks					
	3 Bas	A Review of the structure of complex sensor networks, Basic properties of complex sensor networks									
	4. Rev	4. Review of IEEE 1451 standards for smart converter networking									
	5. Ove	. Overview of network communication model									
	6. Prot	tocol for co	mmunicatio	on and synchro	onizati	ion					
	7. Clas	sses of elec	ctrical interf	aces with exa	mples	of implementations					
Course content	8. Mid	lterm test									
	9. Ove	erview of ex	cisting indus	strial wired inte	erface	S.,					
	10. Ne	etwork topo	ologies, inte	rface specifica	ations	and communication	protocols				
	11. EX	11. Examples of industrial interfaces									
		12. Wileless usurdated sensor networks, nub architecture, 13. Overview of standard wireless interfaces, routing protocols for wireless sensor networks									
	13. 01 14 Pr	ohlems of a	data transm	nission protect	ion an	d reduction of sense	n node co	nsumntion	10		
	15. Er	nd-of-term	test		lon an		1100000	noumption			
			Textbook	((s)							
Author/s			Name	Name of publication, publisher Y			Year	Pa	iges (from-to)		
Haenselmann, T.		Wireles	eless Sensor Networks: Design Principles for Scattered 2011								
Systems. Oldenbourg Verlag.							2011				
López, J., & Zhou, J. (Eds.). Wireless sensor network security (Vol. 1). los Press. 20						2008					
Anjum, F., & Mouchtaris, P. Security for wireless ad hoc networks. John Wiley & Sons. 2007											
	D	Ass	essment m	lethods				Points	Percentage		
	Pre-exa	im obligatio	10	10							
Evaluation criteria		laboratory exercises							10%		
		Midterm test 20 20%									
		End-of term test 20 20%									
	Final ex	am									
	Written exam 40 40'							40%			
	TOTAL 100 1009							100%			
Web sources	http://sf.	.ues.rs.ba/e	eng/wp-con	tent/uploads/2	2024/0	1/Engleski-NPP-II-c	klus.pdf				
Applicable from	19.10.2023 - 213th session of the Academic Council, Faculty of Transport and Traffic Engineering Doboj										

		UNIVE Faculty of Tra S Pro Il cycle								
Course title	urse title PARALLEL COMPUTING SYSTEMS									
Electrical Engineering East Sarajevo										
Code		Co	ster	ECT	S credits					
SAF12SI03225026,031	11	elective II				6,0				
Professor/s	PhD Gor	2hD Goran Kuzmić, Assistant Professor								
Associate/s PhD Goran Kuzmić, Assistant Professor										
Weekly not	urs		Individual stude	nt nours (per sen	iester)	Stude	fficient So			
L	TE	LE	L	TE	LE		So			
3	1	1	63	21	21		1,4			
Total teacher workload	(hours, per	semester) W = 3*15	+ 1*15	urs, per semester)						
+ 1*15 = 45 + 15 + 15 :	= 75	-	T	= 3*15*1,4 + 1*15	5*1,4 + 1*15*	,4 = 63 + 21	+ 21 = 105			
	To	tal workload: W+T=l	Jopt= 75+ 105 = 18	80 = hours p	er semester					
	After suc	cessfully mastering	the content of the c	ourse, the student	will be able t	0:				
Course aims and	-applies t	tast Fourier transform	n with the use of pa	arallelism,						
learning outcomes	-solves tr	ne problem of N bod	ies with the use of a	parallelism,						
Proroquisitos	There ar	e no prior prerequisi	as using parallelisi	11						
Teaching methods	Lectures	auditory exercises	laboratory exercise	s consultations						
Course content by weeks	4 Typolo 5 Softwa 6 Messag 7 Paralle 8. Midter 9. Examp 10. Algor 11. Fast 12. The p 13. Carlo 14 Efficie 15 End-o	 3 Parallelism at the shared memory level, parallelism at distributed memory 4 Typologies of communication networks and their impact on performances 5 Software protocols for parallel processing 6 Message Forwarding Protocol (MPI) protocol: Basics, 1-N, N-1 and N-M communication. 7 Parallel Virtual Machine (PVM) 8. Midterm test 9. Examples of parallelization of numerical algorithms 10. Algorithms in linear algebra using parallelisms 11. Fast Fourier transform using parallelisms 12. The problem of N bodies with the use of parallelisms 13 Monte 13. Carlo analysis using parallelisms 14 Efficiency of parallel computing 								
			Textbook (s)						
Author/s		Nam	r Pag	ges (from-to)						
M. Dubois, M. Annav	/aram, P.	Parallel Compute	er Organization and	2						
A. F. Lorenzon, A.C.S. B. Filho Parallel computing hits the power wall: principles, challenges and a survey of solutions. Springer Nature 2019										
		Assessment r	nethods			Points	Percentage			
	Pre-exan	Pre-exam obligations								
			5	5%						
Evaluation criteria			15	15%						
			15	15%						
			15	15%						
	Et al.		Laboratory exercises 10 10%							
	rinai exam									
TOTAL OF AL							40%			
Wah courses	http://cf.uce.re.bo/ong/wp.content/uploade/2024/01/Engloak/ NDD.II.eik/wa.ndf									
Applicable from	10 10 20	23 - 213th session o	t the Academic Ca	uncil Faculty of T	anenort and	Traffic Engin	eering Doboi			
Applicable from	19.10.20	23 - 213th session o	f the Academic Co	uncil, Faculty of Tr	ansport and	Traffic Engin	eering Doboj			

Y UCTONU		UNIVERSITY OF EAST SARAJEVO							A STATE OF STATE		
		Faculty of Transport and Traffic Engineering Doboj									
		Study programme: Traffic							$f((\underline{N}))$		
A CONTRACTOR		Profile: Motor Vehicles								A0503	
Course title		I	cycle			er of stud	ay Se				
Course title	UNUNVENTIONAL VEHILLE DKIVES Motor Vehicles: Operation: Maintenance and Diagnostics of Vehicles:										
Code	Inviolor vehicles, Operation, infantenance and Diagnostics of vehicles									TS cradits	
SAF12SM03226426.032											
Professor/s	PhD Snežana	Petković.	Full Profes	sor							
Associate/s PhD Snežana Petković, Full Professor											
Weekly hours Individual student hours (per semester) Student workload coefficient So											
L T	E	LE		L	T	E	L	E		S₀	
3	2		0 3*15*1,4=63 2*15*1,4=42 0*15*1,4=0					=0	1,4		
Total teacher workload (hours, per semester) Total student workload (hours, per semester)											
3*15 + 2*1	5 + 0*15 =	75 hours		3*15	*1,4 + 2*´	15*1,4 + (0*15*1,4	= 105	hours		
Total su	ibject load (1	teaching	+ studer	nt): 75 + 105 = 18	0 hours p	er semes	ster			-	
	1. introduc	ction to	the his	story of unconv	entional	motor v	ehicle d	rives,	reasons	for	
	developm	ent, poss	sible impl	lementations and	the impor	rtance of	these so	lutions		f	
Course aims and	2. masteri	ng the K	nowieage	e of the principles	of opera	tion of un	iconventi	onal d	rives and t	neconcepts of	
learning outcomes	3 masteri	na the	knowler	tae on the cor	struction	and de	avelonme	ant of	compone	nts of	
	Unconvent	tional mo	tor vehic	cle drives	1311 4011011	and ac	sveiopine		compone		
	4. apply th	ne acquir	ed know	ledge in practice							
Prerequisites	does not ha	ve									
Teaching methods	Lectures, a	uditory e	xercises,	consultations							
	1. Review	of per	ormance	es of unconventi	onal mot	or vehic	le drives	s, histo	ory of dev	elopment and	
	assessment of their future significance.										
	2. Compa	2. Comparison of different unconventional drives from the point of view of application invehicles and									
	their comp	eir comparison with conventional drives.									
	3. Wankel	Wankel engine.									
	4. Electric	Electric vehicle propulsion - concepts and designs.									
	5. Venicie	. Venicle electric drive components - electric motors and rectifiers.									
Course content	6. Compo	 Components of electric drives of vehicles - energy storage and its provision. Midtarm test 									
Course content		8 Fuel cells - working principle and vehicle concepts									
	9 Fuelce	o. Fuel cells - working principle and vehicle concepts. 9. Fuel cells - hydrogen storage and necessary infrastructure									
	10. Hybrid	10. Hybrid drives - concepts, advantages and perspectives.									
	11. Hybrid drive components.										
	12. Stirling engine as a propulsion engine - theoretical foundations.										
	13. Gas tu	13. Gas turbine as propulsion engine.									
	14. Flywh	I. Flywheel as propulsion engine.									
	15. Solar	drive. (E	nd-of-ter	m test)							
A with a rila			lextb	000K (S)	muhliah			Veer			
Author/s Mitschke M. Wallentowitz H.:		Name of publication, publisher f Dynamics of power vehicles. Springer Verlag Berlin 20					2004	Pages (Iroini-to)			
Bauer H.:	1	Motor ve	Motor vehicle manual Bosch. Springer Verlag Berlin 2004								
		Vieweg handbook for motor vehicle									
Braess H.H., Seinert U.:		technology, Vieweg Verlag, Braunschweig 2001.									
	Assessment methods								Points	Percentage	
	Pre-exam obligations										
	attendance								10	10%	
	Midterm test								30	30%	
Evaluation criteria	End-of.term test								30	30%	
	Students who pass all tests are exempted from the written part of the										
		idi UXdili final ayam (aral)							30 200/		
	τοται							100	100%		
Web sources	http://sf.ues	.rs.ba/er	na/wn-co	ntent/uploads/202	24/01/Enc	aleski-NP	P-II-ciklu	s.pdf	100	10070	
Applicable from	19,10,2023	- 213th	session (of the Academic (Council F	aculty of	Transpor	t and	Traffic Eng	ineerina Doboi	
	1.0.10.2020	21001				adding of					