UNIVERSITY OF EAST SARAJEVO FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING DOBOJ



I CYCLE OF STUDY STUDY PROGRAMME TRANSPORT AND TRAFFIC

Doboj, 2021

CURRICULUM

FIRST CYCLE OF STUDY (BACHELOR OF SCIENCE WITH HONOURS)

- TRANSPORT AND TRAFFIC-

The Faculty of Transport and Traffic Engineering is an educational – scientific institution that provides all levels of higher education 4+1+3 (four years of the first cycle of study, one year of the second cycle of study and three years of the third cycle of study), pursues knowledge innovations and invests constantly in professional development in the field of transport and traffic engineering and its applications in informatics and motor vehicles.

In the academic year 2005/06 students were enrolled at two out of five Departments: Road and Urban Transport and Traffic and Rail Transport and Traffic. After completing studies at these departments, students are awarded titles of Bachelor of Science in respective fields. Since the academic year 2006/07 students enrolled at the other three Departments as well: Postal Transport and Traffic, Telecommunications and Logistics.

In 2014 the Ministry od Education and Culture of the Republic of Srpska, by the Decision numbered 07.050/612-10-1-2/14 of 2 July 2014, approved the implementation of the innovated programme of the first and second cycle of studies in the study program Transport and Traffic. Thereby eight teaching modules were approved, six of them being active at the Faculty:

- Road Transport and Traffic
- Rail Transport and Traffic
- Logistics
- Telecommunications and Postal Transport and Traffic
- Informatics in Transport and Traffic
- Motor Vehicles

The main characteristics of the innovated curriculum was its harmonization with the Bologna process. It had been conducted together with other high education institutions in the country and the region. In comparison to the previous, the content of the new syllabi was optimized together with the number of courses thus achieving not only rationalisation but also the flexibility of the syllabi.

First and second year of the study consist of common subjects, mandatory for all students regardless the study module. Students gain general knowledge they need for further education. Third and fourth year of study is when students choose specific module. Students gain knowledge from the field they have chosen. Certain number of courses are mandatory but there are also elective courses which students choose based on their wishes and interests.

After eight semesters, students who pass all the exams proscribed in the curriculum at the study programme Transport and Traffic and successfully defend the B.Sc. thesis are awarded the title of Bachelor of Science in Transport and Traffic.

Together with the Degree certificate a Diploma supplement is also issued (in English at request) containing skills, competencies and knowledge of the degree bearer.

Vice Dean

Miroslav Kostadinović, PhD

Common courses – first and second year of study

and the second	CY NCTOWAGH C		STRAIM COL								
		- Fe	Study program: Traffic Profile: Common Courses	18			A0603				
Number		Code	ode Course title			Semester	se	Hour per mes	s ter LE	ECTS	
	I year of study										
1.	САФ11С3	07100116,0320	MATHEMATICS I	0	1	I	3	2	0	6.00	
2.	САФ11С3	807100914,0211	INFORMATICS	0		Ι	2	1	1	4.00	
3.	САФ11С3	807100316,0321	ELECTRICAL ENGINEERING	0		I	3	2	1	6.00	
4.	САФ11С3	807100415,0220	NARRATIVE GEOMETRY WITH TECHNICAL DRAIN	0		I	2	2	0	5.00	
5.	САФ11С3	07100516,0321	PHYSICS	0		Ι	3	2	1	6.00	
6.	САФ11С3	807100613,0120	ENGLISH LANGUAGE I	0				_	-		
7.	САФ11С3	807100713,0120	GERMAN LANGUAGE I	0		I	1	2	0	3.00	
8.	САФ11С3	807100826,0320	MATHEMATICS II	0	1	Ш	3	2	0	6.00	
9.	САФ11С3	807133125,0211	INTRODUCTION TO TRAFFIC AND TRANSPORT	0		II	2	1	1	5.00	
10.	САФ11С3	07101026,0220	MECHANICS	0		Ш	2	2	0	6.00	
11.	САФ11С3	807101124,0210	TRANSPORT GOODS OF GOODS	0		Ш	2	1	0	4.00	
12.	САФ11С3	807133226,0211	COMPUTER AIDED DESIGN IN ENGINEERING	0		II	2	1	1	6.00	
13.	САФ11С3	07101323,0110	101323,0110 ENGLISH LANGUAGE II O		6						
14.	САФ11С3	807101423,0110	GERMAN LANGUAGE II	0	7	11	1	1	0	3.00	
					тс	TAL	26	19	5	60	
			II year of study								
15.	САФ11С3	807133334,0210	TRANSPORTATION TRAFFIC LAW	0		Ш	2	1	0	4.00	
16.	САФ11С3	807101636,0320	TECHNICAL ELEMENTS	0		Ш	3	2	0	6.00	
17.	САФ11С3	807133536,0220	MATHEMATICS III	0		Ш	2	2	0	6.00	
18.	САФ11С3	807133435,0220	ECONOMICS	0			2	2	0	5.00	
19.	САФ11С3	807130136,0220	ANALYSIS OF TRANSPORT NETWORKS	0			2	2	0	6.00	
20.	САФ11С3	807102033,0120	ENGLISH LANGUAGE III	0	13	Ш	1	2	0	3.00	
21.	САФ11С3	807102133,0120	GERMAN LANGUAGE III	0	14					5.00	
22.	САФ11С3	80711746,0320		0		IV	3	2	0	6.00	
23.	САФ11С3	807133645,0311	BASICS PROGRAMMING	0		IV	3	1	1	5.00	
24.	САФ11С3	807102445,0220		0		IV	2	2	0	5.00	
25.	САФ11С3	80/102645,0220	TRANSPORT MEANS AND DEVICES	0		IV	2	2	0	5.00	
26.		072222045 0222		0		IV	2	2	U	4.00	
~-		07202245,0320	DATABASES IN TRAFFIC ENGINEERING	┨.		n <i>1</i>	~		~	5.00	
27.	CA#11C3	07202245,0320		11		IV	3	2	U	5.00	
	CAΦ11C3	507233745,0320									
					TO	TAL:	27	22	1	60	

L - lectures
TE - theoretical exercises
LE - laboratory exercises

		UNIX Faculty of P I cycle	,	A DEDJ							
Course title		- /		MATHEMATICS I							
Department											
Coo	de	Co	Course status Semester			ECTS credits					
САФ11С30710011	.6,0320	N	landatory	I		6,00					
Professor/s	PhD Ve	esna Mišić									
Associate/s	PhD Ve	esna Misic				Student workload					
W	eekly hour	s	Individual s	tudent hours (per	semester)	coefficient So					
L	TE	LE	L	TE	LE	S ₀					
3 Total tabahar	2		60	45	U vrklaad (haur	1.33					
W/= 3*1	5 + 3*15 +	0*15 =90 hours		T= 3*15*S ₂ + 3*	15*S ₀ + 0*15	s, per semester) *S _o = 120 hours					
	Tc	otal workload: W+	$T=U_{ont}=90+120$	0 = 210 hours per s	emester	50 120 110015					
Course aims and learning outcomes1. Adoption of mathematical concepts 2. Mastering Mathematical Techniques 3. Limit value of arrays and functions 4. Testing functions											
Prerequisites	There a	There are no conditions for listening and laying objects.									
Teaching method	eaching methods Teaching process is realized mainly through the frontal form of work - lectures and interaction forms of work - auditory exercises.										
Course content	1. Basic 2. Bino 3. Com 4. Trigo 5. Expo 6. Degr 7. The 8. Collo 9. Meth 10. Lim 11. Cor 12. Sca three p 13. Equ 14. Dis breakth 15. II co 16. 17	c concepts from the mial formula plex numbers and ponential form of a ree and root of a c term matrix. Dete oquium 1 hods for solving a hit value of arrays. Incept of vector and milar, vector and mil points Juations are real. T tance of the point hrough is made the olloquium	the theory of sets d operations f a complex number complex number complex number rminants and the system of linear Convergent arr d operation over ixed product of the the various form from the right frough the plane	s and mathematica ber er r equations. Inverse ays. r vectors. Linear de the vector. Equation s of the equation a and the plane. The	e matrix and i ependence ar n level. A leve re true cross is two r	matrix operations nd vector coordinates el equation through real. The					
Author/	's	Name	lextbook	(S) nublisher	Vear	Pages (from-to)					
1. V. Mišić	, R. Mišić	Matematika 1 M Takači, Stojan F	atematika 1 za Radenović	inženjere, Đurđica							
Author/	s	Nan	ne of publication	n, editor	Year	Pages (from-to)					

		As	Poi	nts	Percentage					
	Pre-exa	Pre-exam obligations								
			aching	10		10%				
Evaluation exitaria	And the colloquium							30%		
Evaluation criteria	II colloquium							30%		
	Final exam									
	final exam (oral / written)							30%		
						100)	100 %		
Web sources	IN TOTA	L								
Applicable from	16.06.20	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common Courses					g				
975 4583 30 Lat			I	cycle	-		I year of stu	ıdy			40E0J
Course title						•	INFORMATICS				
Department		Dep Elec	partment for Computer and Information Sciences and Bioinformatics, Faculty of actrical Engineering East Sarajevo								
c	Code			Cou	ırse status		Seme	ster		ECTS	credits
САФ11С307100	914,0211			M	Vandatory I					4	4.00
Professor/s	Želj	ko St	jepanovi	ć, PhD, a	associate p	rofesso	or				
Associate/s	Go	ran Ku	uzmić, M	Sc, senio	or assistant						
	ours			Individ	ual stu	dent hours (pe	er semester))	Stude coe	nt workload efficient So	
L	TE		LE		L		TE	LE			So
2	1		1		37.5		18.75	18.75			1.25
Total teach	ner worklo	oad (h	nours, pe	r semes	ter)		Total student	workload (h	ours,	per se	mester)
W = 2*15	+ 1*15 +	1*15	= 30 + 15	5 + 15 =	60		T = 2*25*1.25	5 + 1*25*1.2	25 + 1	*25*1.	25 = 75
		Tot	al worklo	bad: W+	$T=U_{opt}=60$) + 75 =	= 135 hours pe	r semester			
	1.5	tuder	nts will a	cquire b	asic knowl	edge re	elated to infor	mation syste	ems		
Course aims and	d 2.5	2. Students will acquire basic knowledge related to databases									
learning outcon	nes 3.5	4. Students will acquire basic knowledge related to husiness intelligence systems									
	4.3	tuder	nts will b		inted with	compu	iter architectu	re and comr	utor	potwo	rkc
Prerequisites No formal prerequisites									K5		
Trerequisites		tures	laborate	orv exer	cises com	nuter c	lassroom exer	cises and tu	torial	s Stud	ving and
Teaching metho	ods sen	ninar	papers.		0.000) 00111				corrar	5. 5144	ying and
	1. C 2. F	 Computer architecture Programming methodology and development of programming languages Structure and types of information systems 									
	3. 5	3. Structure and types of information systems									
	4. [4. Design of information systems									
	5. A	5. An integral approach to the organization of information systems									
	6. F	6. Protection and security of data and information									
Course content	/.E	7. Basic concepts of data organization									
course content		8. Colloquium I 9. Problems and Challenges in data management									
	10	9. Problems and Challenges in data management 10. Database structure									
	11.	10. Database structure 11. Basic trends in further development of computer networks									
	12.	Basic	compon	ents of	computer	networ	rks				
	13.	Deve	lopment	and cor	nnection to	the In	ternet				
	14.	Inter	net servi	ces							
	15.	Collo	quium II								
					Textb	ook (s)					
Autho	or/s			Name	of publicat	tion, p	ublisher	Yea	r	Page	es (from-to)
Dr Krstan Bošnja	ak		Informa Luka	itics, Nat	tional Univ	ersity l	library Banja	2004	4		
					Additiona	al read	ings				
Autho	or/s			Nam	e of public	ation,	editor	Yea	r	Page	es (from-to)
Żeljko Stjepanov	vić		Teachin	g mater	ials, Traffic	Engine	eering Doboj	2014	4		1 - 149
				As	sessment	metho	ds		Poir	nts	Percentage
Evaluation crite	Pre	-exan	n obligati	ions				,	1		
					At	tendan	ce to lectures	/ exercises		5	5%
		Seminar paper / project / essay positively assessed								15	15%

	Test / colloquium	40	40%						
	Final exam	40	40%						
	TOTAL	100	100%						
Web sources									
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

Faculty of transport and trainc Engineering Study program: Traffic Profile: I cycle I year of study Course title ELECTRICAL ENGINEERING Department Department of General Electrotechnics - Faculty of Electrical Engineering Code Course status Semester ECTS credits CAΦ11C307100316,0321 required I 6,00 Professor/s PhD Miroslav Kostadinović, associate professor Student workload coefficient S₀ Associate/s Individual student hours (per semester) Student workload coefficient S₀ L TE LE L TE S₀ 3 2 1 X*15*S₀ Y*15*S₀ Z*15*S₀ 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester)
Course title ELECTRICAL ENGINEERING Department Department of General Electrotechnics - Faculty of Electrical Engineering Code Course status Semester ECTS credits CAФ11C307100316,0321 required I Professor/s PhD Miroslav Kostadinović, associate professor Associate/s Uweekly hours Individual student hours (per semester) Coefficient So L TE L TE 3 2 1 X*15*So Y*15*So Total teacher workload (hours, per semester) Total student workload (hours, per semester)
I cycle I year of study Course title ELECTRICAL ENGINEERING Department Department of General Electrotechnics - Faculty of Electrical Engineering Code Course status Semester ECTS credits CA0011C307100316,0321 required I 6,00 Professor/s PhD Miroslav Kostadinović, associate professor Associate/s Student workload coefficient So L TE LE So 3 2 1 X*15*So Z*15*So 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
Course title ELECTRICAL ENGINEERING Department Department of General Electrotechnics - Faculty of Electrical Engineering Code Course status Semester ECTS credits CAФ11C307100316,0321 required I 6,00 Professor/s PhD Miroslav Kostadinović, associate professor Associate/s Individual student hours (per semester) Student workload coefficient S₀ L TE LE TE LE S₀ 3 2 1 X*15*S₀ Z*15*S₀ 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
Department Department of General Electrotechnics - Faculty of Electrical Engineering Code Course status Semester ECTS credits CAΦ11C307100316,0321 required I 6,00 Professor/s PhD Miroslav Kostadinović, associate professor Student workload coefficient S₀ Associate/s Individual student hours (per semester) Student workload coefficient S₀ L TE LE L TE LE S₀ 3 2 1 X*15*S₀ Y*15*S₀ Z*15*S₀ 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
CodeCourse statusSemesterECTS creditsCAΦ11C307100316,0321requiredI6,00Professor/sPhD Miroslav Kostadinović, associate professorAssociate/sPhD Miroslav Kostadinović, associate professorMeekly hoursIndividual student hours (per semester)Student workload coefficient S₀LTELELTELES₀321X*15*S₀Y*15*S₀Z*15*S₀1.5Total teacher workload (hours, per semester)Total student workload (hours, per semester)Total student workload (hours, per semester)
CAΦ11C307100316,0321 required I 6,00 Professor/s PhD Miroslav Kostadinović, associate professor Associate/s Individual student hours (per semester) Student workload coefficient S₀ L TE LE TE LE S₀ 3 2 1 X*15*S₀ Y*15*S₀ Z*15*S₀ 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
Professor/s PhD Miroslav Kostadinović, associate professor Associate/s Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 2 1 X*15*So Y*15*So Z*15*So 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
Associate/s Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 2 1 X*15*So Y*15*So Z*15*So 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
Weekly hours Individual student hours (per semester) Student workload coefficient So L TE LE L TE LE So 3 2 1 X*15*So Y*15*So Z*15*So 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
L TE LE L TE LE So 3 2 1 X*15*So Y*15*So Z*15*So 1.5 Total teacher workload (hours, per semester) Total student workload (hours, per semester) Total student workload (hours, per semester)
321 $X*15*S_0$ $Y*15*S_0$ $Z*15*S_0$ 1.5Total teacher workload (hours, per semester)Total student workload (hours, per semester)Total student workload (hours, per semester)Total student workload (hours, per semester)
I otal teacher workload (hours, per semester)
$W = 2^{-15} + 1^{-15} + 1^{-15} - 60 \text{ Hours}$ $I = 2^{-15} + 3^{-0} + 2^{-15} + 3^{-0} + 1^{-15} + 3^{-0} - 90 \text{ Hours}$ Total workload: W+T=1 last = 60 + 90 = 150 hours per semester
1 Explains the basic concepts and laws of electrostatics, time constant currents, basi
concepts and laws of electromagnetism and time-varying currents.
2. 2. Calculates the electric force, field, pote33ntial, and potential difference of the
voltage, flux and energy of the electric field, determines the expression for the
capacitance of the different conductor bodies.
3. 3. Apply Om's law, Kirchhoff laws, and theorem of electrical networks to solve
electric networks with time constant currents, with and without capacitors.
4. 4. Calculates the magnetic force, induction, flux, magnetic field and magnetic energy
5. 5. It distinguishes the general equations of electric networks with time-varyin
currents and simple-current currents.
0. 6. Apply a phase and complex account for solving the circuit of simple-time current.
Teaching methods Lectures, seminar papers, auditory exercises and laboratory exercises
1. Introduction, Kulonov law, the concept of electrostatic field, potential, voltage
2. Capacitance
3. Power of the electric current, Omov and Julius Law, Kirchhoff's laws
4. Contour current method
5. Potential of knots
6. Tevenen's theorem
7. The magnetic field and the size that characterize <i>it</i>
8. I colloquium
Course content 9. Electromagnetic induction
10. Concept and representation of alternating sizes, circuits of alternating current with
basic elements
11. Regular RLC connections, impedance, concept of resonance
12. Parallel RLC connection, admittance
13. Solving complex collisions with a complex method
14. Recessed circuits, transformers
15. Il colloquium
Author/s Name of publication, publisher Year Pages (from-to)

Поповић Б.	Основи електротехнике 1, Грађевинска књига Београд	1989.							
Поповић Б.	Основи електротехнике 2, Грађевинска књига Београд	1990.							
М. Костадиновић	Практикум за аудиторне вјежбе из електротехнике, Саобраћајни факултет Добој	2012.							
	Additional readings								
Author/s	Name of publication, editor	Yea	r	Page	es (from-to)				
Божиловић Х., СпасојевићЖ., Божиловић Г.	Збирка задатака из основа електротехнике, електростатика, сталне једносмерне струје, Академска мисао Београд	1998.	•						
БожиловићХ.,	Збирка задатака из основа електротехнике,								
СпасојевићЖ.,	магнетизам, наизменичне струје, Академска	лагнетизам, наизменичне струје, Академска 1998.							
БожиловићГ.	мисао Београд	исао Београд							
	Assesment methods		Poir	nts	Percentage				
	Pre-exam obligations								
attenda	nce at lectures		5		5				
1st colle	oquium		25		25				
Evaluation criteria 2nd col	oquium		25		25				
laborat	ory exercises		15		15				
	Final exam								
oral or s	written		30		30				
IN TOTA	AL		100)	100 %				
Web sources									
Applicable from 16.06.2	021 - 175 Session of the Councile, Faculty of Transport	and Tr	affic	engine	ering				

			UNI Faculty of	VERSITY OF EAST		2005				
	Vesy .		i acarty ci	Study program:	Traffic	,				
				Profile:			40501			
4.58-3-10			l cycle		I year of stud	yk				
Course title			NARRATIVE GEOMETRY WITH TECHNICAL DRAIN							
Department		Chair of Enginee	air of Mechanical Structures and Engineering Product Design - Faculty of Mechanical gineering							
C	ode		Co	Course status Semester			ECTS credits			
САФ11С3071004	15,0220			required			5,0			
Professor/s	PhD) Perica G	ojković, ful	l professor		·				
Associate/s										
v	Veekly ho	ours		Individual stu	udent hours (per	semester)	Student workload coefficient S _o			
L	TE		LE	L	TE	LE	So			
2	2		Z	X*15*S₀	Y*15*S₀	Z*15*S₀				
Total teach	er worklo	bad (hour	s, per seme	ster)	Total student v	vorkload (ho	urs, per semester)			
W= 3*	*15 + 2*1	<u>.5 + 0*15</u>	=75 hours	T 11 T 105	$T=3*15*S_{o}+2$	*15*S _o + 0*	$15^{*}S_{o} = 105 \text{ hours}$			
		Total wo	orkload: W	+T=U _{opt} = 75 + 105	= 180 hours per	r semester				
	1. A	Acquisitio	n of engine	ering knowledge	for the most ratio	onal graphic	presentation of			
Course sime and	con	ndined to	rms. 2. mas	stering the basic p	procedures, conc	epts and me	thods of forming			
Learning outcom		Activities that are necessarily followed by the design process								
	2 3. F	raining of	ning of students for independent production of technical drawings both by manual and							
	by i	using com	nuters	or macpendent p			igs both by manual and			
Prerequisites There is no listening and laving requirements										
Teaching metho	ds Lec	tures. ser	ninar paper	rs and auditory ex	ercises					
	1. [Display of	the basic g	eometric element	ts of the space in	a slit projec	tion and a pair of			
	ort	orthogonal projections								
	2. N	2. Mutual spatial relationships of points, real and straight								
	3. C	3. Drawing new projections based on two known transformations								
	4. F	4. Rotation								
	5. C	Displaying	splaying some geometric bodies and surfaces							
	6. T	he quote	e quoted projection							
Course content	/.1	7. I colloquium								
	8.5	3. Standardization and tolerance								
	10	Automat	ed drawing	of technical drav	vings					
	11.	Mechanie	cal materia	Is and operating v	oltages					
	12.	11. Mechanical materials and operating voltages								
	13.	Bearings								
	14.	Coupling	s and brake	S						
	15.	II colloqu	ium							
				Textbook (s)					
Author	r/s		Nam	e of publication,	publisher	Year	Pages (from-to)			
1. Сорак, М., Гој	ковић, П	l. Hai Tex	цртна гео кнолошки ф	метрија и осн ракултет, Бањалу	ови машинств /ка	^{a,} 2003				
2. Алексић, В.	, Коси,	Ф., На	цртна	геометрија,	Савремен	1007				
Нинчић, М.		ади	линистрац	ија		1331				
				Additional rea	dings					
Author	r/s		Nar	ne of publication	, editor	Year	Pages (from-to)			
3. Станковић, П.		Зби	ірка рец	зених задатак	а из нацртн	1e 2002				
		гео	метрије, 1	. део, Саобраћај	ни факултет					

	Assesment methods	Points	Percentage					
	Pre-exam obligations							
	presence in lectures / exercises	10	10 %					
	graphic tasks	10	10 %					
Evaluation criteria	And a colloquium	25	25 %					
	II colloquium	25	25 %					
	Final exam							
	final exam (oral)	30	30%					
	IN TOTAL	100	100 %					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common Courses I cycle								
Course title						PHYSICS				
Department	De	partme	ent of Phys	ics - Facult	y of Phi	ilosophy Pale				
Code		-	Соц	urse status	-	Semes	ster		ECTS	credits
САФ11С307100516	0321		required			I		6,0	0	
Professor/s	Ph.D. Z	loran Ć	urguz, asso	ociate profe	essor					
Associate/s	Ph.D. Z	loran Ć	urguz, asso	pciate prof	essor					
Wee	ekly hours	5		Individ	ual stu	dent hours (pe	er semester))	Stude coe	nt workload fficient So
L	TE		LE	L		TE	LE			So
3	2		1	45		22,5	22,5			1,5
Total teacher v	vorkload (hours,	per semes	ter)		Total student	workload (h	ours	, per se	mester)
3*15 +	2*15 + 1*	15 = 90) hours			3*15*So + 2*	*15*So + 1*	15*S	o = 135	hours
	Tota	l workl	oad: W+T=	Uopt= 90	+135 =	225 hours p	per semeste	r		
	1.Introc	duction	to studen	ts with the	basics	of certain phys	sics fields th	at ar	e neede	ed for
Course aims and	student	students of traffic.								
learning outcomes	2.Introc	Introduce students to classical mechanics								
Dronoguisitos	3.Introc		to specific	fields of t	nermoc	iynamics and c	optics			
Prerequisites	Inere a	ctures auditory exercises seminar papers laboratory exercises								
Teaching methods	Lectures, addition vertices, seminar papers, laboratory exercises								ware at af	
Course content	 1.Introduction: Introduction to Newtonian mechanics. Kinematics. Haristated movement the material point. 2.Kinematics. Rotary motion of the material point 3.Dynamics of the material point 4.Work, power and energy 5.Dynamics of rotational motion of solid bodies 6.Oscillatory motion 7.Colloquium I 8.Mechanical waves 9.Elements of thermodynamics. Ideal gas 10.Work and heat. Laws of thermodynamics 11.Fundamentals of molecular-kinetic theory of gases 12.Optics 13.Electromagnetic radiation 14.Structure of atom and atomic nucleus 									
Author/s			Name	of publica	tion. p	ublisher	Yea	r	Page	es (from-to)
V.Vucic. D Ivan	ovic		Physics I. I	I, III Scien	tific bo	ok Belgrade	199	8	. 49,	
J. Setraicic. D. M	irjanic		Bioph	ysical basi	cs of te	chnique	201	2		
F. Adrovic, Z. Cı	irguz		Physic	s I Traffic	Faculty	y Doboj	201	7		
			-	Addition	al readi	ings				
Author/s			Nam	e of public	ation,	editor	Yea	r	Page	es (from-to)
G. Dimic, M.Mitrino	vic	Colle	ction of ph	iyics, Adva	nced Co	ourse D	1991			
			Δ	ssesment	nethor	ls		Poi	nts	Percentage
	Pre-eva	m oblig	rations							. c. centage
Evaluation criteria	nresend	re in ler	rtures / ev	ercises				5		5%
	Collogu	ium I						20		20%
	Conoqu							20		20/0

	Colloquium I	20	20%						
	Test and seminar work, laboratory exercises	15	15%						
	20	20%							
Web sources	Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common Courses I cycle									
Course title			•		Er	iglish language	e l				
Department											
Code	1		Сон	urse status	•	Semes	ter		ECTS	credits	
САФ11С30710	0613,012	20	Μ	landatory		I			3	3.00	
Professor/s	Tanja	Petrović									
Associate/s				1							
Wee	ekly hou	rs		Individ	ual stu	dent hours (pe	r semester)	Stude coe	ent workload efficient S _o	
L	TE		LE	L		TE	LE			So	
1	2		0	21		42	0			1.4	
Total teacher v	vorkload 45 h	i (hours, ours	per semes	ster)		Total student v	workload (h 63 hou	iours rs	s, per se	mester)	
	43 11	ours	Total wo	orkload: 10	8 hours	per semester	051100	15			
Course aims and learning outcomes	The ai comm (readi comm	m of the nunicate ng, lister nunicativ	of the language course is to enable students to improve both their ability to nicate and their linguistic competence in English language. A balance of receptive (, listening) and productive (speaking, writing) skills are developed through nicative classes and self-study. After completing the course students should be able to fully read and understand English texts, understand and use grapmatical concents								
and give presentations in English									concepto		
Prereguisites None											
Teaching methods	Comm	nunicativ	e, inductiv	ve, structur	al, TPR	method					
	1	Past a	nd present	t verb form	S						
	2	Uses c	Uses of auxiliary verbs								
	3	Formi	Forming adjectives								
	4	Formi	Forming nouns and gerunds								
	5	Narra	Narrative tenses								
	6	Contin	Continuous aspects in other tenses								
	7	Midte	rm test	6.11							
Course content	8	Use ai	nd non-use	of the pas	sive						
	9	Pussiv	e joins wi	forms	gei						
	10	More	complex a	juillis vestions fo	rmc						
	12	Perfec	t tenses	uestions jo	11115						
	13	Preser	nt perfect s	imple and	continu	IOUS					
	14	Revisi	on								
	15	End of	f the term t	test							
				Text	oook (s)						
Author/s			Name	of publica	tion, pu	ublisher	Yea	r	Page	es (from-to)	
Sarah Cuppingam	Poto	r Cut	ting Edge,	third editio	on, uppe	er intermediate	2,				
Moor, Johnatan Byg	, reter		Pearso	on, Harlow	Essex, I	England	2015		1-66		
				Addition	al readi	ings					
Author/s			Nam	ne of public	cation	editor	Yea	r	Page	es (from-to)	
Raymond Murphy		Enali	sh Gramm	ar in Use. (CUP		2009	-	1-313		
,			As	ssessment	metho	ds	, ,	Poi	ints	Percentage	
Evaluation criteria										, j	
	Attend	dance						10		10%	

	Midterm test	20	20%				
	End of the term test	20	20%				
	Final test	50	50%				
Web sources							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering						

JARC B2		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common Courses						ADDO		
Course title										
Department					GER		GET			
Code		Cou	Course status		Seme	ster	ECT	'S credits		
САФ11С30	7100713,	0120	M	andatory		I			3.00	
Professor/s				-						
Associate/s										
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester) Stud	ent workload efficient S₀	
L	TE		LE	L		TE	LE		So	
1	2		0	21		42	0		1.4	
Total teac	teacher workload (hours, per semester) Total student workload (h 45 hours 63 hour						iours, per semester) rs			
	Total workload: 108 hours per semester									
Course aims an learning outcor	id mes									
Prerequisites										
	oas									
Course content				Toytk	ook (c)					
Autho	or/s		Name	of publica	tion n	ublisher	Vea	r Da	ges (from-to)	
Autro	5175		Nume				ica			
				Addition	al readi	ngs				
Autho	or/s		Nam	e of publi	cation,	editor	Yea	r Pa	ges (from-to)	
	-			-						
			A	ssesment	method	ls		Points	Percentage	
	_									
Evaluation crite	eria									
									•	
Web sources										
Applicable from	n 16.	06.2021	- 175 Session	of the Cou	uncile, F	aculty of Tran	sport and T	raffic engin	eering	

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course						Constant Constant	
13 4.583 40 10		l cycle			I year of stud	у			(CRO)
Course title				Μ	ATHEMATICS II				
Department									
Code		Со	urse status		Semest	er	ECTS credits		5 credits
САФ11С30710	0826,0320	M	landatory		II			(6,00
Professor/s	PhD Ves	sna Mišić							
Associate/s	PhD Ves	sna Mišić							
We	ekly hours		Individua	l stud	lent hours (per	semester))	Stude coe	ent workload efficient So
L	TE	LE	L		TE	LE			So
3	2	0	60		45	0			1.33
Total teacher W = 3*:	workload (L5+3*15+0	hours, per semes 1*15=90 hours	ster)		Total student w T=3*15*S₀ + 3*	orkload (h *15*S₀ + 0'	ours, *15*S	per se 50 = 120	mester) 0 hours
	Тс	otal workload: W	+T=U _{opt} =90+1	20=	210 hours per s	emester			
	1. Acqui	iring knowledge f	rom an integi	ral ac	count.				
Course aims and	2. Acqui	iring knowledge f	rom many ro	ws.					
learning outcomes	3. Acqui	iring knowledge f	rom the prop	ertie	s of a given inte	egral.			
	4. Acqui	iring knowledge f	rom different	tial e	quations.				
Prerequisites	Mathen	natics I							
Teaching methods	forms o	g process is realiz f work - auditory	zed mainly the exercises	roug	h the frontal for	m of work	- lect	ures a	nd interactive
Course content	1.Limit copies 2.Differ 3.Undet 4.The in 5. Integ 6. Integ 7. Defin 8. I Collo 9. Calcu 10. Non 11. Diffe 12. Diffe 13. Def 14. Alte 15. II co	 1.Limit values and continuity of the function of two or more independently variable. Partial copies 2.Differentiability. Excerpt of the function in the given direction. Differentials of higher orders 3.Undetermined integral 4.The integration of shifts is variable. Partial integration 5. Integration of rational functions 6. Integration of trigonometric and some irrational functions 7. Definition and basic properties of a particular integral. Newton-Leibniz formula 8. I Colloquium 9. Calculating a given integral. Application of a specific integral 10. Non-integral integrals. 11. Differential equations of the first order 12. Differential equations of second order with constant coefficients 13. Definition of numerous order and its convergence. Rows with positive members. Comparative convergence criteria. Dalamber and Koši criteria 14. Alternative and stepped rows. Macl ocation Order. Summing the ranges 							
		I	Textboo	ok (s)					
Author/s		Name	of publicatio	n, pı	ıblisher	Year	r	Pag	es (from-to)
1. V. Mišić,	R. Mišić	Matematika 2, Zadaci i riješe primjenom na t	Vesna Mišić, ž ni primjeri iz cehničke nauk	Zorar z viš c <u>e</u> ,B.F	n Mitrović e matematike P. Demidovič	S			
			Additional r	readi	ngs				
Author/s		Nam	ne of publicat	ion, (editor	Year	r	Pag	es (from-to)
							T		
		Δ	ssesment me	thod	s		Poin	nts	Percentage
Evaluation criteria	Pre-exa	m obligations			-				

	Presence and activity in teaching	10	10%					
	I colloquium	30	30%					
	II colloquium	30	30%					
	Final exam							
	final exam (oral / written)	30	30%					
	IN TOTAL	100	100 %					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							STRUTALING OF THE
ANC			-	Study prog	<i>ram:</i> Ti	raffic			
)		P	Profile: Con	nmon c	ourse			AOEOJ
Course title			I cycle			I year of stud	IV ID TRANSD	ОРТ	
Department		Faculty of	f Transnort	and Traffi	c Engin	Pering			
Department		Taculty O			C LIIGIII				
	Code		Cou	urse status	5	Semest	ter		ECTS credits
САФ11С30	7133125,	0211	0	obligatory II				5.00	
Professor/s	Ph.	D. Djordje	Popovic, a	ssociate pr	rofessor	•			
Associate/s									
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semester)		Student workload coefficient S _o
L	TE		LE	L		TE	LE		So
2 Tatal tasak	1		1	45		22,5	22,5		1,5
otal teach ו	ier workl(*15 ± 1*1	oau (nours, 5 + 1*15 -	per semes	iter)		2*15*1 5 ± 1*	иогкіоаd (hi 15*1 5 ± 1*	ours ∙1⊑*	, per semester) 1 5 – 90 hours
2	13+1 1	Total wo	rkload: W+	T=Llopt = 60) + 90 =	2 13 1,3 + 1 : 150 hours per	semester	13	1,5 – 90 110015
	Aft	er attendin	g classes a	nd passing	the exa	m. the student	will be able	e to:	
	✓	describe	the histori	cal develo	pment	of traffic and a	analyze the	fac	tors that caused the
		phenome	non and de	evelopmen	t of tra	ffic;	-		
	~	define the concept, features, and specifics of traffic services;							
		describe the traffic system's multidimensional concept, elements, and subsystems;							
Course aims an	d ✓	define and debate the basic traffic-geographical and exploitation-technical characteristics							
learning outcom	nes	of the dif	terent type	es of traffi	c, as we	ell as their plac	ement in ti	ne ti	ramic system and the
	✓	✓ compare types of transport and argument comparative analysis of							
		characteristics/performance:							
	✓	describe a	and debate	e current tr	ends in	the developme	ent of transp	porta	ation systems;
	✓	describe a	and debate	e modern ti	rends in	the developm	ent of traffi	c sys	stems.
Prerequisites	No	conditions							
Teaching metho	ods Lec	tures, audi	tory exerci	ses, consu	Itations				
	1.	Introduct	ion: An ove	erview of t	he histo	orical developm	ent of traffi	ic	
	2.	Division o	of traffic an	d transpor	t a of trai	fic and transpo	rt		
	3. 1	Transport	requirem	erpretation	n of tr	ansformation a	nd modelin	ησ	
		Flements	of product	tion in traf	fic		ind modelin	15	
	6.	Traffic sys	stem infras	tructure, r	neans o	f transport, and	d selected c	hara	acteristics
	7.	Transport	: integratio	n: Concept	t and le	vels (I colloqui t	ım)		
Course content	8.	Transport	: market—	basic term	s and co	oncepts			
	9.	The conce	ept and the	e specifics (of trans	port services			
	10). The intera	action of tr	ansport su	pply an	d demand			
	11	New cond	cepts of tra	iffic, transp	oort, an	d communicatio	on		
	12	. Transport	, tramc, ar	id the envi	ronmer affic an	it d transport			
	14	. Globaliza	tion. inform	national sc	cietv. a	nd the new cor	ncept of trai	ffica	and transport
	15	. Regulatio	n of the tra	affic and tr	ansport	market (II coll	oquium)		
		<u> </u>		Text	ook (s)	•			
Autho	or/s		Name	of publica	tion, pu	ublisher	Year	•	Pages (from-to)
Boiković N P	Petrović N	/ "Intr	oduction t	o Traffic ar	nd Trans	port", Belgrade	2018	2	_
		Facu	Ity of Trans	sportation	and Tra	ffic Engineering	2010		
Adamov	vić M.	"Intr	oduction to	o Traffic", I	Faculty	ot Transport an	d 2003	3	-
			IC EIIGIIIEEI	ning, delgfa	aue		1		

Additional readings										
Author/s		Name of publication, editor	Year	r Pa	ges (from-to)					
		The Geography of Transport Systems, Hofstra								
Rodrigue, J-P e	t al	University, Department of Global Studies & 2009		9	-					
		Geography								
Presentations from lectures -				-						
		Assesment methods		Points	Percentage					
	pre-exam obligations									
		Attendance at lectures and ex	ercises	5	5%					
		Positively graded seminar	15	15%						
Evaluation criteria		Colloc	2x20	40%						
	Final ex	Final examination								
		Oral exami	nation	40	40%					
	TOTAL			100	100%					
Web sources										
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	raffic engin	eering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course					A OFOJ
Course title		l cycle			I year of stu	idy	
Department	Dena	MECHANICS					
Code		Co	urse status		Seme	ster	ECTS credits
САФ11С30710	1026,0220	C	bligatory				6.0
Professor/s	PhD Zorai	n Ćurguz, assoc	iate profess	or			
Associate/s	PhD Zorai	n Ristikić, assist	ant professo	ors			
Wee	ekly hours		Individu	ial stud	lent hours (pe	er semester)	Student workload coefficient So
L	TE	LE	L		TE	LE	S ₀
Z	2 vorklaad (br		30		30 Total student	U workload (br	1.33
W/= 2*15	+ 2*15 + 0*	15 =60 hours	ster)		T=.2*15*So +	2*15*So + 0	*15*So = 80 hours
vv-2 15	Tota	I workload: W·	+T=Uopt= 90	+ 80 =	170 hours per	r semester	15 50 - 00 110015
Course aims and learning outcomes 1. The student is able to independently formulate and solve professional tasks. 2. Students will be able to recognize important laws and methods of mechanics - Static Kinematics and Dynamics. 3. Proper approaches to solving problems in practice. 4. Able to independently improve their knowledge in this area					onal tasks. mechanics - Statics,		
Prerequisites	There are	no conditions	for listening	; and ta	king the cour	se	
Teaching methods	Lectures,	auditory exerc	ses, semina	r pape	rs.		
Course content	 The student is able to independently formulate and solve professional tasks. Students will be able to recognize important laws and methods of mechanics - Statics, Kinematics and Dynamics. Proper approaches to solving problems in practice. Able to independently improve their knowledge in this area There are no conditions for listening and taking the course Lectures, auditory exercises, seminar papers. Statics, introduction - basic concepts of theoretical mechanics and definitions, axioms statics. Interface system of forces. Moment of force in relation to a point, Varignon's theore (moment rule). Parallel forces in the plane. Stacking forces. Coupling force. System of couplings of forces in the plane. Arbitrary plane system of forces. Examples of body balance under the action of a pla system of forces. Flat girders. Solid beam girders differently supported and differently loade 6. Sliding and rolling friction. Center of gravity of a rigid and homogeneous body. Determination of the center of grav of complex surfaces from known geometric surfaces. I colloquium Kinematics. Number of degrees of freedom of movement. Point kinematics. Positic velocity and acceleration vector. Cartesian, polar and natural coordinate system. Translational motion. Rotation of the body. Plane body motion. Relationship of velocities of body points. Properties of angu velocity and angular acceleration. Current pole speed. Acceleration point connection. Curre pole acceleration. Complex point movement. Absolute velocity of a point. Absolute acceleration point. Dynamics. Material point dynamics. Newton's laws of dynamics. Inertial coordinat system. Types of forces. Two dynamics tasks. Differential equations of point motion. The fi integrals. Measures of mechanical movement. Measures of mechanical actio						

	Lagrange-	Lagrange-Dalambert principle. Lagrangian equations of the second kind.								
	15. Il collo	oquium								
		Textbook (s)	-							
Author/s		Name of publication, publisher Ye			Pages (from-to)					
Rusov, L.:		Mehanika – Statika, Naučna knjiga, Beograd	1992	2.						
Rusov, L.:		Kinematika, Dinamika, Naučna knjiga, Beograd 1992								
Mišić,B.;Ćurguz,Z.;M	ilotić,M:	Mehanika –Statika, Kinematika, Dinamika, Tehnička knjiga-udžbenik,UIS, S-TF, Doboj	2010).						
		Additional readings	-							
Author/s		Name of publication, editor	Yea	r	Page	es (from-to)				
T.P.Anđelić		Teorija vektora, Građevinska knjiga, Beograd	1959).						
Blagojević,D;Babić,Ž.	:	Statika-repitorijum i riješeni zadaci, UuBL, MF	2000).						
		Assesment methods		Point	s	Percentage				
	Pre-exam	Assesment methods ination obligations		Point	s	Percentage				
	Pre-exam	Assesment methods ination obligations e.g. attendance at lectures / exe	ercises	Point 10	s	Percentage 10%				
	Pre-exam	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project /	ercises / essay	Point 10	s))	Percentage 10% 10%				
Evaluation criteria	Pre-exam	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col	ercises / essay lloquia	Point 10 10 25x	s)) 25	Percentage 10% 10% 50%				
Evaluation criteria	Pre-exam e.g. integ	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the	ercises / essay lloquia e test /	Point 10 10 25x	s)) 25))	Percentage 10% 10% 50%				
Evaluation criteria	Pre-exam e.g. integ	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the coll	ercises / essay lloquia e test / oquia)	Point 10 25x (50	s)) 25))	Percentage 10% 50% (50%)				
Evaluation criteria	Pre-exam e.g. integ	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the coll Final test	ercises / essay lloquia e test / oquia)	Point 10 25x (50	s)) 225))	Percentage 10% 50% (50%)				
Evaluation criteria	Pre-exam e.g. integ	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the coll Final test orally or in v	ercises / essay lloquia e test / oquia) writing	Point 10 10 25x (50 30	s)) 25))	Percentage 10% 50% (50%) 30%				
Evaluation criteria	Pre-exam e.g. integ TOTAL	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the coll Final test orally or in v	ercises / essay lloquia e test / oquia) writing	Point 10 25x (50 30 10	s) 25)))	Percentage 10% 50% (50%) 30% 100%				
Evaluation criteria Web sources	Pre-exam e.g. integ TOTAL	Assesment methods ination obligations e.g. attendance at lectures / exe e.g. positively evaluated seminar paper / project / e.g. test / col gral written exam (for students who do not pass the coll Final test orally or in v	ercises / essay lloquia e test / oquia) writing	Point 10 25x (50 30 10	s) 25))) 0	Percentage 10% 50% (50%) 30% 100%				

ALCONO CONTRACTOR		U	NIVERSITY OF EA	ST SARAJEVO	ng		2005 halles @age			
		Faculty	Study progra	m. Traffic	Ig	See.				
· · · · · · · · · · · · · · · · · · ·	/		Profile: Comm	on course						
4.500 30 555		l cycl	e l	I year of st	udy		ΔΟΕΟΙ			
Course title		-	TRAI	NSPORT GOODS C	OF GOODS					
Department	De	partment of T	ransportation En	geneering - Facult	ty of Transpo	rt and Traff	ic Engineering			
Cod	e		Course status	Seme	ester	ECT	S credits			
САФ11С30710	01124,021	0	required II				4,0			
Professor/s	PhD Pe	rica Gojković, i	full professor							
Associate/s										
We	ekly hours	;	Individual	student hours (po	er semester)	Stude co	efficient So			
L	TE	LE	L	TE	LE		So			
2	1	0	X*15*S ₀	Y*15*S₀	Z*15*So					
I otal teacher	workload	(nours, per ser	nester)	Iotal student	workload (h	ours, per se	emester)			
VV = 2*1	5 + 1*15	Total work	rs	$1 = 2^{+}15^{+}S_{0}$	$+ 1^{-15} - 5_{0} + 0$	$1^{15} \cdot 5_0 = 75$	nours			
	1 To a	nalyze the divis	sion and classific:	ation of goods from	m the point (of view of tr	ransport as			
	well as the characteristics of goods:									
Course aims and	2. To g	et acquainted	with the packagir	ng and packaging (of goods, as v	well as tran	sit funds;			
learning outcomes	3. Enga	ige actively in t	ransport in term	s of safety;	0 /		·			
	4. To g	et acquainted	with internationa	I and national reg	ulations as w	vell as to ac	quire acquired			
	knowle	dge in practice	2.							
Prerequisites	There a	are no conditio	ns for listening a	nd laying objects.						
Teaching methods	Lecture	es, auditory exe	ercises, seminar j	papers.						
	1. Divis	Division and classification of goods from the point of view of transport Ouality of goods and its control in the transport process								
	2. Qual	2. Quality of goods and its control in the transport process 3. Properties of goods								
	3. Prop	3. Properties of goods								
	4. Qua	4. Quality of service quality in the transport of goods. Stability of service								
	6 Prop	5. Prackaging and packaging of goods from the aspect of the transport process 6. Properties of transport means from the aspect of transport of goods								
	7. I coll	oquium			150011 01 800					
6	8. Divis	ion and classif	ication of means	of transport						
Course content	9. Safe	ty aspects of tr	ansport							
	10. Ma	rking of goods								
	11. Typ	es of labels on	the goods							
	12. Div	ision and class	ification of mean	s of transport						
	13. Inte	13. International and national regulations related to the transport of goods and dangerous								
	goods	ndardization a	nd standards							
	14. Sta		nu stanuarus							
	15.110	Shoquium	Textboo	k (s)						
Author/s	;	Na	me of publicatio	n. publisher	Yea	r Pag	es (from-to)			
		Транспорт	не особине ј	робе, Саобраћа	іни родо					
тојковић, П.		факултет До	, обој		2012					
			Additional r	eadings						
Author/s	;	Ν	lame of publicat	ion, editor	Yea	r Pag	es (from-to)			
			Assesment me	thods		Points	Percentage			
Evaluation criteria	Pre-exa	am obligations								
			for example. pr	esence in lectures	/ exercises					

	colloquium		
	tests		
	Final exam		
	final exam (oral)		
	IN TOTAL		
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic					Service and a service of the service	
)		P	rofile: Common	course	•	AOEOJ	1
Course title			l cycle	Computer /	l year of stu Vided Design in	dy Engineering		×
course title		Departm	ent of com	outers, informati	on technologies	and biotect	nology, FTF, Univ	versitv
Department		of East Sa	arajevo					,
	Code		Cou	urse status	Semes	ster	ECTS credi	its
САФ11С307133	226,0211		m	andatory	II		6,00	
Professor/s	Ass	istent Prof	ffesor Gora	n Jauševac				
Associate/s	Ass	istent Prof	ttesor Gora	n Jauševac			Churchauthaut	ب المالية م
	Weekly h	ours		Individual stu	udent hours (pe	er semester)	coefficie	nt So
L	TE		LE	L	TE		So	
2 Tatal taga	1		1	37,5	18,75	18,75	1,25	
	15 + 1*15	- 20 + 15	, per semes	ter)	10tal student v	worкioad (nd 15*1 25 ± 13	urs, per semeste	er)
2 15 + 1 1	15 + 1 15	- <u>50 + 15 -</u> Total we	- 12 - 00 110 orkload: W4	T=U _{ort} = 60 + 75	$\frac{2}{13}$ 1,25 + 1 = 135 hours per	15°1,25 + 1 semester	15-1,25 - 75110	urs
Course aims an learning outcor	By 1. 2. d 3. nes 4. 5. 6. 7.	 By mastering this course the student will be able to: properly displays and dimensionally defines objects by standards in electronic form us computer CAD programs. compares solutions to traffic problems in the form of CAD programs. analyzes and displays reconstructions in traffic design using CAD programs. shows the image in CAD program form of comparative characteristics of vehicles. geometrically models and presents conceptual solutions. creates and geometrically models solutions to transport problems in the form of CAD programs. 						m using of CAD
Prerequisites	NO NO	turacand	laboratory					
leaching meth	oas Leo	tures and	tion Grand	exercises	n in technical a	nnlications	Significance and	concent
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Introduct of engine Vector g for wor technolo Introduct Basics of engineer Proper di I colloqu Visual pe Display ir Appearan Elements Engineer Analysis a Geometr Use app compara II colloqu	tion. Graph eering draw raphics. Pro- king with gies. tion to exist use, possil ing drawing isplay and c ium erception of n CAD progra nces and cro- s of geomet ing drawing and present ic models a olied CAD tive advant Jium	ic communicatio ing and its applic ograms for work raster graphics ing user CAD cor pilities, and way by the needs of limensional defir traffic signals. ram form of vehic poss-sections of tr ric modeling. creation, and g tation of reconst nd conceptual so programs for p ages.	n in technical a ration. ing with vector s. Graphic sys nputer program of the practical study and resea sition of objects cles. affic facilities. eometric mode ructions. olutions in traffic geometric mode	pplications. graphics. R stems archins for design application arch program by the stand by the stand c. deling in tr	Significance and aster graphics. Pi tecture. Demon of available vers is. lards. lards.	concept rograms istration sions for
				Textbook (s	5)			
Autho	or/s		Name	of publication, p	bublisher	Year	Pages (fro	om-to)

Z. Božičković		Osnove AutoCAD-a, Sobraćajni fakultet Doboj	Osnove AutoCAD-a, Sobraćajni fakultet Doboj 2012				
		Additional readings					
Author/s		Name of publication, editor Year			Page	es (from-to)	
M. Živanović		Inženjersko crtanje primenom računara (praktikum za vežbe),Saobraćajni fakultet, Beograd.	2012				
		Assesment methods		Poi	nts	Percentage	
	Pre-exam obligations						
		attendance at le	5		5%		
		Seminary	15		15%		
Evaluation criteria		I Collo	20		20%		
		II Collo	20		20%		
	Final exam						
		Writing	g exam	40		40%	
	TOTAL			100)	100%	
Web sources							
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	raffic	engine	ering	

		UNIVERSITY OF EAST SARAJEVO					2005 Stan 10 0 000			
		Study program: Traffic							and a second	
82°		Profile: Common course							C	
4.500 30 555			l cycle	-		I year of stud	dy			AOEOJ
Course title			-		En	glish language	II			
Department										
Code	2		Course status		Semester			ECTS credits		
САФ11С30710	1323,01	.10	М	landatory		П			3	3.00
Professor/s	Tanja	Petrović								
Associate/s								_		
We	ekly hou	urs		Individ	ual stu	dent hours (pe	r semester)	Stude coe	ent workload efficient S _o
L	TE		LE	L		TE	LE			So
1	1		0	21		1	0			1.4
Total teacher v	vorkloa 1 30	d (hours, nours	per semes	iter)		Total student v	vorkload (h 42 hou	iours rs	, per se	mester)
			Total wo	orkload: 72	2 hours	per semester				
	The a	im of the	language	course is t	o enabl	e students to ir	nprove bot	h the	eir abilit	y to
	comn	nunicate	and their l	inguistic co	ompete	nce in English l	anguage. A	bala	nce of r	eceptive
Course aims and	(read	ing, lister	ning) and p	oroductive	(speaki	ng, writing) skil	ls are deve	lope	d throug	gh
learning outcomes	comn	nunicativ	e classes a	nd self-stu	dy. Afte	er completing t	he course s	tude	nts sho	uld be able to
	succe	esstully re	ad and un	derstand E	nglish t	exts, understar	id and use	gram	imatical	concepts
Proroquisitos		ssfully co	moleted c	OURSE Engl	lich I an					
Teaching methods	Comr	nunicativ			al TPR	method				
	1	Relativ	ve clauses	c, structur		method				
	2	Quant	Quantifiers							
	3	Modal	Modal verbs							
	4	Past m	Past modals							
	5	Use ar	Use and non-use of articles							
	6	Phrasa	Phrasal verbs							
	7	Midte	rm test							
Course content	8	Repor	ting people	e's exact w	ords					
	9	Hypot	etical situa	tions in th	e prese	nt				
	10	Hypot	etical situa	tions in th	e past					
	11	Use of	gerunds a	ind infinitiv	/es					
	12	Differe		ve and ger	und tori	TIS				
	1.0	Rovici	scress and	sentence	suess					
	14	Fnd of	the term	test						
	113	Liid Oj		Text	ook (s)					
Author/s			Name	of publica	tion. p	ublisher	Yea	r	Pag	es (from-to)
		Cuti	ting Edge,	third editio	on, uppe	er intermediate	,			
Sarah Cunningam Moor, Johnatan Bvg	er	Pearso	on, Harlow	Essex,	England	2015		67-179	9	
	-			Addition	al read	ings				
Author/s			Nam	e of publi	cation.	editor	Yea	r	Pag	es (from-to)
Raymond Murphy		Engli	sh Gramm	ar in Use,	CUP		2009		1-313	
			As	ssessment	metho	ds		Poi	nts	Percentage
Evaluation criteria										
	Atten	dance						10		10%

	Midterm test	20	20%					
	End of the term test	20	20%					
	Final test	50	50%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

PRC PRC		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common Courses						P	2005	
UL OL 6924			l cycle			I year of stu	ıdy			
Course title					GERI	MAN LANGUA	GE II			
Department										
Code			Cou	ırse status	;	Semester		ECTS credits		
САФ11С30	7101423,	0110	M	andatory		II			3.00	
Professor/s										
Associate/s										
	Weekly h	ours		Individual student hours (per semester)) Stud	Student workload coefficient So	
L	TE	TE LE		L		TE	LE		So	
1	1		0	21		1	0		1.4	
Total teach	Total teacher workload (hours, per semester) Total student workload (hours, per seme 30 hours 42 hours							emester)		
			Total wo	orkload: 72	hours	per semester				
Course aims and learning outcon	d nes									
Prerequisites										
Teaching metho	ods									
Course content										
				Text	ook (s)					
Autho	or/s		Name	Name of publication, publisher			Yea	r Pa	ges (from-to)	
				Addition	al read	ngs				
Autho	or/s		Nam	e of public	cation,	editor	Yea	r Pa	ges (from-to)	
			As	ssesment	method	ls		Points	Percentage	
Evaluation crite	eria									
Web sources										
Applicable from	1 6.	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course I study cycle II study year						2005 554 Millio 640 TH 4050J		
Full name of the iter	n		TRANSPORTATION TRAFFIC LAW						
Desk Department of Transportation Engineering - Faculty of Transport					of Transpor	tation Doboj			
Item o	code		Сот	urse status		Semester		ECTS	
САФ11С307133334,0	210			bound		III		4,0	
Teacher	Dr. Tih	iomir Djuri	c, Associat	e Professor					
Contributor	Dr. Tih	iomir Djuri	c, Associat	e Professor	•				
Fund hours / 1	teaching l	oad (week	ad (weekly) Individu			al student wo	rkload)	Student load coefficient So	
L	TE		LE	L		TE	LE	So	
2	1		0	45		45	0	1,5	
total teach W= 2*1	ing load (5 + 2*15 -	in hours, s + 0*15 =60	emester) hours			total studen T= 2*15*S _o	t workload + 2*15*S _o -	(in hours, semester) + 0*15*S _o = 90 hours	
]]	fotal cour	se load (te:	aching + s	tudent): W	/+T=U	$J_{opt} = 60 + 90 =$	150 semest	er hours	
Learning outcomes	 Acquithose The The The Appregu 	 Acquiring knowledge about the basics of rights and legal norms, as a prerequisite for a fuller understanding of those legal norms that regulate interpersonal relations, conditions and behavior in traffic. The study of legal norms as limiting factors. The influence of factors on the behavior of traffic participants. Application of national and international regulations in the function of planning, organization, regulation and safety of traffic 							
Prerequisites	There a	are no lister	ning and pa	ssing condi	itions				
Teaching methods	The tea form of	ching proc f work - cla	ess is realiz ssroom exe	zed mainly ercises	throug	the frontal fo	orm of work	- lectures and the interactive	

Course content per week	 The subject of traffic law, The similarity and differences of the traffic branches of law and Sources of traffic law. Traffic Organization, Traffic Roads, Traffic Safety and Vehicles. Railway traffic law and the concept and subject of the study of railway traffic law. Contract for the Carriage of Goods by Rail, Term of Contract, Obligations of the Railway from the Contract for Carriage of Goods, Liability of the Railway and Right of Railway. Rail Passenger Agreement, Rail Baggage Agreement and Unification of Rail Transport Rights. Road Traffic Law, Rights and Obligations of the Contracting Parties and the Convention on Road Transport. Customs relief and Customs Convention on the temporary importation of commercial road vehicles (I colloquium). Air Traffic Law and Air Transport Contract, Successive International Transport, Combined International Transport. International air carrier responsibility and Air waybill. Maritime Transport Law, Participants in the Navigation and the Contract on Carriage of Goods by Ship. Shippers' liability for cargo, General notion of liability and Unification of liability rules. Contract for Carriage of Passengers and Baggage, Concept of Contract, Types of Carriage of Passengers and Rights and Obligations of the Parties. The towing contract, the concept of the towing contract, the rights and obligations of the parties, and the maritime insurance contract. International Multimodal Transport Agreement, FBL - FIATA Combined Transport Bill of Lading. Freight Forwarding, Importance and Development of Freight Forwarding, Features of 							
		Required literature						
Author (s 1. Djuric, T., Kasagio) c, R.	Name of the publication, publisher Traffic Law, University of East Sarajevo, Faculty of Transportation Doboj	2019	r P).	1-265			
		Supplementary literature						
Author (s)	Name of the publication, publishe Year			Pages (from-to)			
1. Inic, M., Jovanovic	e, D.	Traffic Regulations, Faculty of Technical Sciences, Novi Sad	2009).	1-184			
Law on Basics of Road 44/07, 84/09, 48/10, 18	1 Traffic Safety 8/13, 8/17, 89/2	7 in BiH (Official Gazette of BiH, No. 6/06, 75/06, 17 and 9/18)	2018	3.				
Law on Road Safety, (101/11, 32/13 -US, 55/	Official Gazett (14).	e of the Republika Srpska, No. 41/09, 53/10,	2014	ŀ.				
		Type of student work evaluation		Points	Percentage			
	Pre-exam of	ligations						
Obligations forms		Class attendance and act	tivity	10	10%			
of assessment and		I colloq	uium	30	30%			
assessment		II colloq	uium	30	30%			
	Final exam	· · · · · · ·		20	2004			
		final exam (oral / wri	itten)	30	30%			
	IN TOTAL			100	100 %			
Date of certification	16.06.2021 -	175 Session of the Councile, Faculty of Transport and	l Traffic	engineeri	ng			

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2 alera ha	005 1189 ØAA
	2 + Y	Study program: Traffic							
)		P	rofile: Common	course	du			AOEOJ
Course title			i cycle	TEC		αγ ΝΤς			
course title		Denar	rtment of Mech	nanical Structure	s and Engineeri	ng Product	Desigr	n - Faci	ulty of
Department		Mech	ianical Engineer	ring		ing i roudet i	Design	1 1000	
	Code	•	Cou		Somos	tor		FCTS	credits
C1 + 11 C20	74.04.626	0000			Jenies				
	/101636,	0320		ata profocar				6	.00
Associate/s	Phi	on Fror	nija assistent	ate profesor					
Associate/s			nija assistent					Stude	nt workload
	Weekly h	ours		Individual st	udent hours (pe	r semester)		coe	fficient S ₀
L	TE		LE	L	TE	LE			So
3	2		0	63	42	0			1,4
Total teach	1er worklo	bad (ho	ours, per semes	ter)	Total student	workload (h	ours,	per ser	nester)
W:	$= 3^{+}15 + 2$	+ load ($J^*15 = 75 \text{ n}$		$I = 3^{+}15^{+}50^{-}$	+ 2*15*50 +	- 0*15	$5^{*}SO = 1$	105 n
10			ieaching + stud	with technical ele	opl = 75 + 105 =	de and tolor		mester	
Course aims an	d 2 6	o acqu riction	sliding rolling		inents, stanuar	us and toler	ances	•	
Learning outcor	u = 2.7	Aliahili	, siluing, roining	mechanical syst	oms and mocha	nicmc			
icarining outcol		Gears s	springs and sus	nensions					
Prerequisites		es not h	nave	Sensions					
Teaching meth	ods Leo	tures, a	auditory exercis	ses, seminar pap	er				
	1. 6	Basic co	oncepts of tech	nical elements	-				
	2. 5	2. Standardization and tolerances							
	3. 5	3. Sliding friction and rolling friction							
	4. F	4. Reliability and wear							
	5. N	5. Materials for making technical elements							
	6. 5	6. Screws, mechanisms and power transmissions							
	7. F	Friction gears (I colloquium)							
Course content	8.0	8. Gears							
	9.0	Chain ge	ears						
	10.	Gearbo	oxes, reducers a	and manipulator	S				
	11.	Shatts	and shafts	and mathada					
	12.	Countin	ng procedures a	and methous					
	13.	Bearin	as - sliding and	rolling					
	15.	Spring	s and vehicle su	uspension (II coll	oquium)				
				Required litera	iture				
Autho	or/s		Name	of publication, p	oublisher	Yea	r	Page	es (from-to)
1.Vitac, D. Trl	bojevic, N	1.	Mechanical e	elements I, II, III,	Scientific book,	2002	2		1-317
,	• •			Belgrade.					
				Additional read	aings			-	- (6
Autho	or/s	-	Nam Tashaisal alama	e of publication	, editor	Yea	r	Page	es (from-to)
1.Misio	с, В.			ents, script, SF, L		1997		1-135	
			As	ssesment metho	ds		Poin	ts	Percentage
Evaluation crite	Pre	-exam	obligations						
		Channe	0.0115	Attenda	ince and activity	in classes	10		10%
				Attenud		olloquium	20		30%
					10	onoquium	50		50/0

	II colloquium	30	30%				
	Final exam						
	final exam (oral / written)	30	30%				
	IN TOTAL	100	100%				
Web sources							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering						

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course						South a life days		
5 4580 30 LD			I cycle			II year of stu	ıdy		
Course title					Μ	ATHEMATICS			
Department		Mathema	itics Depart	tment- Fac	ulty of	Philosophy Pal	e		
Code			Coι	urse status		Seme	ster	ECT	rs credits
САФ11С30	7133536,	0220	M	andatory		III			6,0
Professor/s	Dra	agana Nedi	ć, PhD						
Associate/s									
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester)	Stud	lent workload Defficient So
L	TE		LE	L		TE	LE		So
2	2	2 0 63 42 0			0		1.4		
Total teach	1er workle	oad (hours,	per semes	ter)		Total student	workload (h	ours, per s	emester)
VV-5	15 + <u>21</u> T	$5 \pm 0.12 =$	75 110015	L 75 d	105	- 180 hours	$1^{\circ}15^{\circ}5_{0} + Z$	$15^{\circ} 5_{0} - 10^{\circ}$	
Course aims an	d			Jopt- 7J	105	- 180 110013	persentest		
Proroquisitos	No	no							
Teaching metho	ods Leo	tures. exer	cises.						
Course content			0.0001						
				Textb	ook (s)	l.			
Autho	or/s		Name of publication, publisher				Yea	r Pa	ges (from-to)
				· · · · · · · · · · · · · · · · · · ·					
				Addition	al read	ings			
Autho	or/s		Name of publication, editor			Yea	r Pa	ges (from-to)	
			As	sessment	metho	ds		Points	Percentage
	Pre	e-exam obli	gations						
						A	ttendance	10	10%
Evaluation crite	ria	Midterm test							20%
Evaluation crite						End of the	e term test	20	20%
	Fin	al exam							_
						(oral part/wr	itten part)	50	50%
	TO	TAL						100	100 %
Web sources									
Applicable from	ו 16.	06.2021 - 1	75 Session	of the Cou	uncile, F	aculty of Tran	sport and T	raffic engin	eering
			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2005 SUBANING QARIA
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- YNC	CBV + (Study prograi	<i>n:</i> Tr	affic			
			Р	<i>rofile:</i> Comm	on c	ourse			AOEOJ
Courses Atala			l cycle			Il year of stud	dy		
Course title		Doport	ECONOMICS					cc in	Prčko
Department		Depart		Cetting and Ma	inage	ement, Faculty			DICKU
Co	ode		Coι	urse status		Semest	er		ECTS credits
САФ11С307	133435,0	0220) obligatory III						5,0
Professor/s	Ass	ist. prote	essor Zivko Er ković MRA	ceg					
Associate/s	3111		KUVIC, IVIDA						Student workload
V	Veekly h	ours		Individual	stuc	dent hours (per	semester)		coefficient So
L	TE		LE	LE L TE		LE		S ₀	
Z Total teache	Z	and (hou		45		45 Total student w	U varklaad (br		1,5
W=2*1	L5 + 2*15	5 + 0*15	= 60 hours			T=2*15*So + 2	*15*So + 0	*15*	*So = 90 hours
		Total w	vorkload: W+	T=Uopt= 60 +	90 =	150 hours per	semester		
	1. A	Acquiring	g basic knowl	edge about f	acts,	principles, pro	cesses and	gen	neral concepts in the
		economy	/ of traffic.				. .		
Course aims and	2. /	Ability to	o find optimal	solutions in	the i	management o	f companie	s, us	sing basic knowledge
learning outcome		About et	conomic theory and decision science.						
	5.1	general r	neasures of e	conomic qual	litv.	and elements (λη, μ	
Prerequisites	No	prerequ	isites						
Teaching method	ds Lec	tures, au	uditory exerci	ses, seminar v	vork				
	1. 1	ntroduct	ion						
	2. E	conomic	c structure of	the traffic en	terpr	rise			
	3. E	lements	of the econo	my of the tra	ffic e	nterprise			
	4.0	Capital ci	rculation in re	eproduction					
	5.1	ne conce Rusiness	ss cost theory						
	7. F	irst collo	auium						
Course content	8. T	ypes and	d specifics of	cost behavior					
	9. 0	Cost price	5						
	10.	The prin	ciple of prod	uctivity in trai	ffic				
	11.	The prin	iciple of econ	omy in traffic					
	12.	Principle	e of rentabilit	y in traffic					
	13.	Busines	s results of tra	affic enterpris	es roric	05			
	14.	Second	colloquium		ipns	es			
	10.	Second	conoquium	Textboo	k (s)				
Author	/s		Name	of publicatio	n, pı	ıblisher	Year		Pages (from-to)
Stavrić Božida	ir, Jov	'nčić	Business E	conomics, Fac	culty	of Business	2012		
Miladin		Economics Bijeljina							
Berberović Sefl	kija, Zi	IJa, Zivko Theory Business Economics, High business and 2012							
LICES		le		Additional r	eadi	ngs			
Author	/s		Nam	e of publicati	ion, e	editor	Year		Pages (from-to)
Berberović Šefkija	а,	Bu	isiness Econo	mics, Faculty	of ec	conomics Banja	2009		
1000rovic Zdravk				· · -					
L. Blank, A. Tarqu	uin	Ba	isics Of Eng	ineering Eco	nom	ny McGraw-Hi	II, 2008		

		Higher Education, New York								
		Assesment methods	1	Points	Percentage					
	Pre-exa	n obligations								
	Presenc	e of lectures / exercises		10	10%					
Free brook is a sufficient of										
Evaluation criteria	Colloqui	um	4	40	40%					
	Final exa	Final exam								
	Final exa	am (oral / written)	1	50	50%					
	TOTAL			100	100 %					
Web sources	/eb sources									
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tra	ffic engine	eering					

A CONTRACTOR		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2005	
	JEBY #		9	Study program:	Traffic	5			
			P	<i>rofile:</i> Common	course			AOEOJ	
3 45r3 40 0			l cycle		II year of stu	dy			
Course title		ANALYSIS OF TRANSPORT NETWORKS							
Department		Depa	artment of Infor	mation - Comm	unication System	ns in Trattic, Doboi	Fac	ulty of Transport and	
	Code		Cou	irse status	Semes	ter	ECTS credits		
САФ11С30	7130136,	0220	r	equired				6.0	
Professor/s	Pro	of. dr Al	leksandar Stjep	anovic					
Associate/s	Pro	of. dr Al	leksandar Stjep	anovic					
	Weekly h	ours		Individual st	udent hours (pe	r semester)		Student workload coefficient So	
L	TE		LE	L	TE	LE		So	
2 2			0	63	42	0		1,4	
Total teach	ner worklo	oad (ho	ours, per semes	ter)	Total student v	workload (ho	ours	, per semester)	
3*1	L5 + 2*15	+0*15	= 75 hours		3*15*S _o + 2*	*15*S ₀ +0*1	.5*S	_o =105 hours	
	D	lotal w	vorkload: W+T=	$U_{opt} = 75 + 75$	= 150 hours p	er semester	-		
	By	master Vcquiriu	ring this course	the student will	be able to:	lanning and	doci	ian in communication	
Course aims an	d net	works	and nostal syst	ems	liples of trainc p	anning anu	uesi	girin communication	
learning outcor	nes 2. N	Mather	natical method	s for traffic anal	vsis				
	3. F	Routing	g systems		,				
	4.1	ntrodu	iction to locatio	n problems and	methods of solv	ing			
Prerequisites	the	re are	no special cond	litions					
Teaching metho	ods lect	tures, a	auditory exercis	es, laboratory e	xercises, consult	ations			
	1.1	ntrodu	iction. Basic cor	cepts of transp	ort and commun	ication netw	vork	S	
	2. A	Algorith	nms for crucifixi	on construction					
	3.1	-inding	optimal paths	in networks. Vai	lants of the shor	test path pr	oble	em entre notwork	
	4. /	Algoriti Maaritk	hins for finding	the second shor	test path in the l	network	es ir	T the network	
	5. A	Algorith	hms for finding the shortest paths between all pairs of nodes in the network						
	7. 1	The pro	blem of the Ch	inese postman:	on the non-orier	nted and ori	ente	ed network (I	
	col	loquiur	m)	•				,	
Course content	8. T	The pro	blem of the tra	veling salesman	- mathematical	formulation	anc	d computational	
course content	con	nplexit	y of the algorith	าท					
	9.1	leurist	ic algorithms fo	r solving the pro	blem of a travel	ing salesma	n		
	10.	Proble	ems of routing a	ind dispatching	of means of tran	sport			
	11.	Routin	ng of venicles in	case of multiple	e bases				
	12.	Locati	on problems - h	asic assumption	s of location the	ory Classifi	catio	on of location	
	pro	blems					curre		
	14.	Media	an and network	center problem	s				
15. Application of artificial neural networks in traffic routing problems in networks									
				Textbook (s)				
Autho	or/s Name of publication, publisher Year Pages (from-to)						Pages (from-to)		
Teodoro	vic D.		Transport Net	works, Faculty	of Transport and	¹ 2007	,		
			Traffi	C Engineering, B	eigrade,				
Autho	or/s		Nam	Additional rea	aditor	Voor			
Autic	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Ivalli			Tear			
1									

	Assesment methods	Points	Percentage						
	Pre-exam obligations								
	attendance at lectures / exercises	5	5%						
Evolution exiterio	I am positively assessed. paper / project / essay	15	15%						
Evaluation criteria	colloquium	30	30%						
	Final exam								
	oral	50	50%						
	SUM	100	100%						
Web sources									
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tu	affic engine	ering						

Net T WCTOWNOIT			UNIV	ERSITY OF	EAST S	ARAJEVO			ante	1005
18.	PA JEBY		Faculty of	Study proc		affic			Pose.	
· 82*			F	Drofile: Con	nmon c					
1945 - 580 - 40 Mars			l cycle	<i>Tojiie.</i> con		Il year of study	,			IOEOJ
Course title			reycie		En	glish language III				
Department										
		•	_							
C	ode		Course status Semester			r	ECTS credits			
САФ11С307	102033,	0120	N	landatory					3	.00
Professor/s	Tar	nja Petrov	νić							
Associate/s										
v	Veekly h	ours		Individ	ual stud	dent hours (per s	emester))	Stude coe	nt workload fficient S _o
L	TE		LE	L		TE	LE			So
1	2		0	21		42	0			1.4
Total teach	er workle	oad (hour	s, per semes	ster)		Total student wo	orkload (h	ours,	per ser	nester)
	4	5 hours					63 hour	ſS		
			Total wo	orkload: 10	8 hours	per semester				
	Aft	er comple	eting this cou	urse, stude	nts sho	uld be able to:				
	1. 0	Jnderstar	nd protession	nal texts in	English					
	2.5	dontific lo	lly use langu	age of the	traffic p	rofession genre.				
Loarning outcom		Gentify Ke	ey words and	/ sciontific	s in pro	ressional English.	rhian and	d vico	vorca	
		Describe t	raffic activit	ies / narts	of traffi	r Chin Eligiish to Se			versa.	
	7.1	Nrite e-m	ails and CVs		ortrain					
	8. [Describe t	heir future i	obs in Engl	lish.					
Prerequisites	Suc	cessfully	completed of	courses Eng	glish Lar	nguage I and Engl	ish langu	age II		
Teaching metho	ds Cor	mmunicat	tive, inductiv	ve, structur	al, TPR	method				
		1 Туре	es of Roads,	Parts of Ro	ads					
		2 Туре	es of Intersed	ctions						
		3 Mat	Materials, Measurements							
		4 Tool	Tools, Safety Equipment							
		5 Basi	Basic Actions, Machines							
		6 Soil,	Describing L	andscapes	5					
		7 Mid	term test							
Course content		8 Surv	eying, Surve	ying Equip	ment					
		9 EUIL	nworks							
		1 Flev	s, Druins ihle Davemei	nt Riaid Pa	womon	F.				
		2 Traf	fic Control	nı, nıgıa i e	venien	•				
	1	3 Sian	aae							
	1	4 Brid	ae Maintena	nce. Road	Mainte	nance				
	1	.5 End	of the term	test						
			-	Text	book (s)					
Author	r/s		Name	of publica	ition, pu	ıblisher	Yea	r	Page	s (from-to)
Virginia Evan		nnv Ro	ads & Highw	<i>ays</i> , Expre	ess Publ	ishing, Newbury,				
Doolev. Mark Ch	avez			Berks	hire		2013		1-40x3	
				(selected	topics)					
				Addition	al readi	ngs			_	
Author	/s	F .	Nam	ne ot public	cation,	editor	Yea	r	Page	s (from-to)
Evoluation oritor	iy io	Eng	giisri Gramm	ur in Use, (mother		2009	Dein	1-313	Dorcontogo
Evaluation criter	Id		A	ssessment	metho	15		Poin	its	Percentage

	Attendance	10	10%
	Midterm test	20	20%
	End of the term test	20	20%
	Final test	50	50%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			UNIV Faculty of 1 S Pr	ERSITY OF Transport a Study prog Profile: Com	EAST S and Trat ram: Tr mon Co	ARAJEVO fic Engineerin affic purses	g	Bee	A060J	
Course title			i cycle		GERN		GE III			
Department					GLIN					
	Code		Course status Semester			ECT	S credits			
САФ11С30	07102133,	0120	M	andatory					3.00	
Professor/s										
Associate/s										
Weekly hours Individual student hours (per semester)) Stud	ent workload efficient So		
L	L TE LI					TE	LE		So	
1	2		0	21		42	0		1.4	
Total teac	her workle 4	oad (ho 5 hours	ours, per semes s	ter)	er) Total student workload (hours, per semester) 63 hours					
	Total workload: 108 hours per semester									
Course aims an learning outcou Prerequisites	nd mes									
Teaching meth	ods									
Course content	t									
				Textb	ook (s)					
Autho	or/s		Name	of publica	tion, pı	ıblisher	Yea	r Pa	ges (from-to)	
				Addition	al readi	ngs				
Autho	or/s		Nam	e of public	cation,	editor	Yea	r Pa	ges (from-to)	
			As	ssesment	method	s		Points	Percentage	
								[
Evaluation crite	eria									
Web courses									1	
Angliashia (06.202	4. 475.6	- 6 + 1		f 			!	
Applicable from	n 16.	.06.202	1 - 175 Session	of the Col	inclie, F	aculty of Iran	sport and T	ratfic engin	eering	

	Course title			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course I cycle II year of study					2005 550 Milling Output
Course title			MATHEMATICAL STATISTICS						
Department		Mathema	athematics Department- Faculty of Philosophy Pale						
Ca	ode		Coι	urse status	;	Semeste	er		ECTS credits
САФ11С30	711746,0	320	M	andatory					6,0
Professor/s	Dra	gana Nedio	, PhD						·
Associate/s									
V	Neekly h	ours		Individ	ual stu	dent hours (per	semester)		Student workload coefficient S ₀
L	TE		LE	L		TE	LE		So
3	2		0	63		42	0		1.4
Total teach W=3*	er worklo 15 + 2*1	orkload (hours, per semester)Total student workload (hours, per semester) $2*15 + 0*15 = 75$ hours $T=X*15*S_0 + Y*15*S_0 + Z$					orkload (ho 15*S₀ + Z*	ours 15*	, per semester) S₀ = 105 hours
	Т	otal worklo	ad: W+T=l	J _{opt} = 75 -	+ 105	= 180 hours p	er semeste	er	
Course aims and1. To gain fundamental knowledge in probability theory. 2. To gain fundamental knowledge in mathematical statistics necessar						iry fo	or understanding		
learning outcom		lonnarame	tric tests						
	4. A	pplication	ation in transport and traffic.						
Prerequisites	Noi	ne.			-				
Teaching metho	ds Lec	tures, exer	cises.						
Course content	1. li 2. S 3. T 4. F 5. N hyp 6. C 7. N 8. N 9. F 10. 11. dist 12. 13. 14. 15.	 Introduction to course content, teaching and assessment methods. Statistical experiment. Random events. Operations with events. Definition of probability. Theorem of probability of two events. Conditional probability. Bayes' theorem. Random variable and its probability distributions. Discrete random variables. Models of exchangeable random variable and its distribution. Binominal, Poisson, and hypergeometric distributions. Continuous random variable. Functions, distributions and parameters. Normal distribution. Standard normal distribution and its parameters. Mid-term test. (I colloquium) Population, character and pattern. Simple random sample. Sampling statistics. Sampling distribution. Central limit theorem. Normal approximations. Student's distribution. Chi-squared distribution. Parameter set estimation based on a sample. Point and interval estimation. Statistical hypothesis testing about set parameters based on a sample. 							
Author	r/s		Name	of nublica	tion n	ıhlisher	Vear		Pages (from-to)
Additor	.,	Mate	ematička st	atistika. Sa	aobraća	ini fakultet	2008		
Vukadinović,S.,	Popović,	J. Beog	rad						
ivierkie, ivi.		vero tehn	ike, Akadei	statistika mska misa	za inzi o, Beog	rad	2002		
				Addition	al read	ngs			
Author	r/s		Nam	e of publi	cation,	editor	Year		Pages (from-to)
Vukadinović,S., P	Popović, J	· Saob	a rešenih z raćajni fak	adataka iz ultet Beog	matem rad	atičke statistike	, 2008		

	Assessment methods	Points	Percentage
	Pre-exam obligations		
	Attendance	10	10%
Evaluation criteria	Midterm test	20	20%
	End of the term test	20	20%
	Final exam		
	(oral part/written part)	50	50%
	TOTAL	100	100 %
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			UNIV Faculty of T	ERSITY OF EAST	SARAJE affic Eng	VO gineering		South a life of a life	
E XNC			9	Study program:	Traffic				
)		P	<i>rofile:</i> Common	course	<u> </u>		A OEOJ	
0 C C C C C C C C C C C C C C C C C C C			l cycle		II yea	ar of study			
Course title		Dono	rtmont of com	BAS	ICS PRO	GRAMINI	NG nd histochny		
Department		of Eas	st Sarajevo	Julers, mormal		noiogies a		blogy, ETF, University	
G	Code		Cou	ırse status		Semeste	r	ECTS credits	
САФ11С30	7133645,	0311	m	andatory		IV		5,00	
Professor/s	Ph.	D. Goro	dana Jotanovic,	Assistant Profe	ssor				
Associate/s									
	Weekly h	ours		Individual st	udent h	ours (per s	semester)	Student workload coefficient S _o	
L	TE		LE	L	TE	E	LE	So	
3	1		1	X*15*S _o	Y*15	5*So	Z*15*S _o		
Total teach	ner worklo	bad (ho	ours, per semes	ter)	Total s	tudent wo	orkload (hour	s, per semester)	
X*1	15 + Y*15	+ 2*15	= W hours	/.T. I.	X*1	L5*S ₀ + Y*:	15*S ₀ + Z*15	$S_0 = 1$ hours	
	1 0	10 tudont	tal workload: w	$V+T=U_{opt}=+$	= nou	od to prog	iester	guages and	
	1.3	aramn	ning	e basic knowled	gereiau	ed to prog	ramming lan	guages and	
	2 1	Jgranni The stur	dent should de	fine the basic co	ncents c	of program	ming: algori	hm program	
	cor	nniler	syntax semant	ics	neepts c	n program	inning. digori	inn, program,	
	3.1	It is expected that the student can independently implement all phases of the							
Course aims an	d pro	programming process in a visual programming language environment for known algorithms.							
learning outcor	nes 4. S	Student	ts should acquir	e basic knowled	ge abou	it the type	s of program	ming languages and	
	wa	ys of pr	rogramming tha	at we can apply	n traffic			0 0 0	
	5. 5	Student	ts should get ac	quainted with t	ne JAVA	program e	environment.		
	6. 9	Student	ts should acquir	re basic knowled	ge and s	skills (com	petencies) fr	om programming in	
	the	JAVA p	programming la	inguage.					
Prerequisites	No								
Teaching metho	ods Leo	tures. l	Laboratory exe	rcises.					
	1.1	The imp	portance of pro	gramming in the	field of	transport			
	2.	Progra	mming langua	ges. Higher an	d lower	level pro	ogramming	anguages. Procedural	
	2	progra	amming langua	ges.					
	3.	Program	mming languag	es independent	of comp	outer and c	operating sys	tem (JAVA, HTIVIL).	
	4.	Oriont	ted Programmi	amming. Struct	urai pro	gramming	, (modular	programming). Object	
	5	Program	mming nhases	·g.					
	6	Algorith	hms and algorit	hmic structures					
Course content	7.	Writing	g program code						
	8.	Collogi	uium 1						
	9.	Java pr	ogramming lan	guage.					
	10.	Object	ts, methods and	d statements in t	he Java	programm	ning language	2.	
11. Data types. Arrays.									
	12.	Variab	oles. Assignmen	t of values.					
	13.	Read in	nput data. Obje	ect (System.in).					
14. Classes in Java programming language.									
	15.	Colloq	luium 2	T	-1				
۸	rla		Nores	I EXTDOOK (5) Sublicks		Voor	Dages (from to)	
Author Ivor Horton	1/5	-	Reginning law			ition by	rear	Pages (Irom-to)	
			ISBN:07645436	52, Wrox Press.	L.4 EU	шон ру,	2002		

Y. Daniel Liang		JAVA programming, Inc., publishing as Prentice Hall, ISBN 13: 978-0-13-376131-3.	2015						
Yakov Fain		Јава 8 програмирање. Компјутер библиотека. Београд. Србија.	2015						
Author/s		Name of publication, editor	Yea	r	Pages (from-to)				
R. Kulkarni		Java EE Development with Eclipse. 2nd edition. Packt Publishing. Birmingham, UK.	2015	5					
		Assesment methods		Poi	nts	Percentage			
	Pre-exam								
		lectures/ exercises atter	10		10%				
		Colloq	15		15%				
Evaluation criteria		Collog	uium 2	15		15%			
		laboratory exe	ercises	10		10%			
	Final exa	am							
		ora	l exam	50		50%			
		100)	100%					
Web sources									
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	raffic	engine	ering			

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						Sara	2005 A 1111 Ø 4 7 7 7 2	
- XNC	₹ ¥			Study progra	<i>im:</i> Ti	raffic				
			P	Profile: Comn	non c	ourse			Δοδοί	
4553 30			l cycle			Il year of stu	idy			
Course title		T	Logistics in traffic							
Department		Transpo	Iransport Engineering							
(Code		Сон	urse status		Semes	ster	ECT	S credits	
САФ11С30	7102445,	0220	m	andatory		IV			5.00	
Professor/s	Phi) Marko V	asiljević, As	sociate profe	essor					
Associate/s								Ct		
	Weekly h	ours		Individua	al stu	dent hours (pe	er semester)	co	efficient So	
L	TE		LE	LE L TE		TE	LE		So	
2	2			X*15*S ₀ Y*15*S ₀ Z		Z*15*S ₀				
Total teacl	ner worklo	bad (hours	s, per semes	ter)		Iotal student	workload (h	ours, per se	mester)	
2*2	15 + 2*15	$+0^{15} = 0$	b0 hours		0.4	2*15*1,4+2	*15*1,4+0*	15*1,4 = 84	hours	
		Iotal wor	kload: W+I:	=U _{opt} = 60 +	84 =	= 144 hours p	er semester	ſ		
	Aft	er this cou	irse student	s will be able	e to:	production di	istribution t	rancoart ar	d logistics	
	1.1	controlling		e of procuren	nent,	production, di	istribution, t	ransport ar	ia logistics	
Course aims an	d 2	reates so	5, lutions for d	ifferent logis	tics r	aquiraments.				
learning outcor	nes 3	annly and	es solutions for different logistics requirements;							
	4.0	letermine	the place. c	lirections and	d stra	tegy of planni	ng and optir	nization of	ogistics	
	sys	tems.							-8	
Prerequisites	no	special co	nditions							
Teaching metho	ods Lec	tures, the	oretical exe	rcises, consu	Itatio	n				
	1.	The goals	of the busin	ess logistics						
	2.	Tasks of b	usiness logis	stics						
	3.	Enterprise	logistics sy	stem						
	4.	Logistics s	gistics strategy and enterprise concept							
	5.	Logistics c	gistics of transport							
	6.	Logistics c	of warehous	es and comm	nissio	ning				
	7.	l colloquit	ım							
Course content	8.	Procurem	ent Logistics	5						
	9.	Distribut	in logistics							
	10.	Opistics	of removing	, g the rest of t	the na	arts of product	ion			
	12	Organiza	tional struct	ture of logist	ics en	iterprises				
	13.	Informat	ion flows in	logistics and	infor	mation system	ns in logistic	S		
	14.	Logistics	controlling	0		- /				
	15.	II colloqu	iium							
				Textbo	ok (s)					
Autho	or/s		Name	of publication	on, pi	ublisher	Yea	r Pag	es (from-to)	
Marko Vasilievi	ć	Log	istics in traf	fic, Universit	y of E	ast Sarajevo,	2011			
	L	Fac	ulty of Trans	sport and Tra	affic E	ngineering	201			
				Additional	readi	ngs				
Autho	or/s		Nam	e of publication	tion,	editor	Yea	r Pag	es (from-to)	
× a tit		Mo	delling of	procureme	nt p	processes usi	ng			
Z. Stević, I. T	anackov,	M. mu		analysis",	First	Internation	nal 2016	5.		
Vasiljević, K. Dir	manoski	Cor	iterence: Tra	ansport for t	oday	's society, Bito	la,			
Evoluction with	ria	IVIa	Leuonia	coore out way				Dointo	Dorcontoro	
Evaluation crite	eria		A	ssesment me	etnoc	15		Points	Percentage	

	Preexamination obligations		
	attendance during lectures	5	5
	attendance during exercise	5	5
	Seminar work	10	10
	colloquiums	2x25	50
	Final examination		
	written examination (2 colloquiums)	50	50
	oral examination	30	30
	Overall	100	100
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	affic engine	ering

			UNIV Faculty of T S Pr	ERSITY OF I Transport an Study progr rofile: Com	EAST S nd Trai ram: Ti mon c	ARAJEVO ffic Engineering raffic ourse 2 nd year of st	g		ADED S	
Course title	-		Тсусіе	T	ranspo	z year or st	devices			
		Depart	tment for mot	or vehicles,	, explo	itation, mainte	enance and o	diagn	ostics of vehicles –	
Department		Faculty	y of Transport	and Traffic	0					
(Code		Cou	rse status		Semes	ster	ECTS credits		
САФ11С30	7102645,	0220	CO	mpulsory		IV			5.00	
Professor/s	Zdr	avko Nu	unić, PhD, asoc	iate profes	sor					
Associate/s								_		
	Weekly h	ours		Individu	ual stu	dent hours (pe	er semester)		Student workload coefficient S ₀	
L	TE	FE LE L TE LE							So	
2	2 2 0					45	0		1.5	
Total teach	ner worklo	bad (hou	urs, per semest	ter)		Total student	workload (he	ours,	per semester)	
	3*15 + 2* 45 ± 20 -	15 + 0*. • 0 - 75	15 = W			3*15*1.5	$+ 2^{+}15^{+}1.5$ + 45 + 0 = 11	+0*. 12 5	15*1.5 = 1 hours	
	43 + 30 -	Total wo	nours orkload: W/+T=	 _{ont} = 75 + 1	112 5 =		+ 43 + 0 - 11	r r	nours	
Course aims and learning outcomesAfter successfully completing this course, a student will be able to: 1. define the theory of movement of motor vehicles, 2. define the forces that act on a motor vehicle in motion, 3. recognize basic drives applied on motor vehicles, 4. recognize the concept of construction and structure of motor vehicles, 5. define basic elements of control system, braking system, gear system, motion system, an other accompanying devices on motor vehicles.							motion system, and			
Prerequisites										
Teaching metho	ods Leo	turers, t	theoretical exe	ercises, sem	ninar p	aper				
Course content	1. Historical development of land vehicles 2. Mechanical drives of vehicles 3. Theory of motion of motor vehicles 4. Forces acting on a motor vehicle 5. Motor vehicle drive 6. Power transfer from engines to gears and gearboxes 7. Colloquium I 8. Traction and dynamic characteristics of transport means 9. Power balance 10. Classification, categorization and standardization of vehicles 11. Concept of construction and vehicle supports 13. Control system, braking system, gear system and motion system 14. Other devices on a vehicle 15. Colloquium II									
Textbook (s)										
Autho	or/s		Name	of publicat	ion, pu	ublisher	Year	•	Pages (from-to)	
1. Mišić,	В.		Transportna s	redstva i ur	ređaji,	(short version)) 2006	5	1-142	
2. Nunić. 7 Ste	vić. Ž.		Trans	portna sred	ortna sredstva i uređaji 2019 1-114				1-114	
Zbirka riješenih zadataka										
			A1	Additiona	I readi	ngs	N-		Deges (from to)	
Auino	1/3		inam		auvii,	cultur	Tear		rages (II UIII-LU)	

Lenasi, J., Žeželj, S., I G.	Danon,	Motorna vozila	1995	5	1-375				
Ivković, I. Spasić, M.		Zbirka rešenih zadataka	2007	7	1-142				
Bukumirović, M.		Zbirka rešenih zadataka iz elemenata transportnih sredstava i uređaja II	2003	3	1-190				
Janković, D.		Rešeni zadaci iz motornih vozila	1993	1	1-261				
		S		Points	Percentage				
	Pre-exa	m obligations							
		e.g. attendance to lectures / exe	ercises	10	10%				
		e.g. seminar paper/ project/ essay positively as	20	20%					
		e.g. case study – group	o work	/	/				
Evaluation critoria		e.g. test / collo	quium	70	70%				
		e.g. laboratory work / laboratory exe	ercises	/	/				
		e.g. practica	l work	/	/				
	Final exa	am							
		e.g. final exam (oral / w	ritten)	70	70%				
	TOTAL			100	100%				
Web sources									
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpor	t and Tr	raffic engin	eering				

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course						Survey and a second sec	
815 45K9 30 K)		study cycl	e		II study ye	ar		40E0J	
Full name of t	he item				•	TRAFFIC PSYCI	IOLOGY			
Desk		Departm	ent of Psyc	chology, Faculty of Humanities and Social Sciences, Pale						
lte	em code		Cou	urse status		Seme	ster		ECTS	
САФ11С30	07102744	4,0220		bound		IV			4,0	
Teacher (s)	[Dr Tihomir (Djuric, Asso	ciate Profe	essor					
Contributor/s										
Fund hours / teaching load (weekly) Individual student workload (semester hours)						rkload)	Studer	nt load coefficient S _o		
L	TE		LE	L		TE	LE		So	
2	2		0	45		45	0		1,0	
total te W=2	eaching lo *15 + 1*	bad (in hou 15 + 0*15 =	r s, semeste = 45 hours	er)		total stud T= 2*15*	l ent workload S _o + 1*15*S _o	d (in hours, + 0*15*S₀ =	semester) = 45 hours	
	To	tal course le	oad (teachi	ing + stude	nt): W	+ T = U _{opt} = 45	+ 45 = 90 sem	nester hour	s	
Learning outc	omes	 Familiarii Predictin Improvin Increasin 	ty with cog g driver be g driver co g traffic sa	nitive perfo havior aim mfort. fety.	ormanc ed at a	e models. more stable a	nd efficient tr	affic flow.		
Prerequisites	٦	There are no	o condition	s for listen	ing and	taking the cou	urse.			
Teaching met	hods l	Lectures, tu	torials, sem	ninar work						
Course conter week	 Basic col disorder Percepti disorder Attentio Opinion Learning Emotion Persona persona Forsona Persona The etio The etio The ortion Psycho-re Basic psy 13. Compler Traffic c I collog 	ncepts of p on - genera rs. n - nature, - definition g, memory a ns, urges, w lity - definit lities. ium ehavior. logy of traf ical founda medical con ycho-medic menting ski ulture - the uium	sychic prod al determin characteris a, character and forgett fillpower, s tion, theor fic traumat tions of tra ntraindicat cal expertis ills in driver concept o	tism - p offic tran ions to re trainin f a beh	stimulation, fe onstancy, perc cope, test meth reasoning, type pes of learning reness. ture, developm henomenon a umatism of rea driving. ng. avioral approa	eelings, senso eption of obj nods, disorder es, disorders. g, theory, tran nent, identity nd indicators cidivism.	ects, space rs. nsfer, perfo , integrity, of traffic vu	nerve impulses. and movement, rmances, disorders. maturity, dynamics, Ilnerability.		
		1		Req	uired lit	terature				
Auth	or (s)		Nar	ne of the p	ublicat	tion, publisher		Year	Pages (from-to)	
1. Milic, A. Traffic Psychol				sychology, Faculty of Transportation Doboj 2007. 1-39				1-391		
				Supple	mentar	y literature				
Auth	or (s)		Na	me of the	publica	tion, publishe		Year	Pages (from-to)	
1. Milosevic,	S.	Tra	ffic Psychol	<i>logy,</i> Scient	tific Boo	ok, Belgrade		1977.	1-262	

2. Milosevic, S.	<i>Perception, attentive motor activity,</i> Institute for Textbooks and Teaching Aids, Belgrade	2002.	1-220				
	Type of student work evaluation	Points	Percentage				
	Pre-exam obligations						
	Class attendance and activity	10	10%				
Obligations, forms of	I colloquium	30	30%				
assessment and	II colloquium	30	30%				
assessment	Final exam						
	written exam (2 colloquiums)	50	50 %				
	oral exam	30	30 %				
	IN TOTAL	100	100 %				
Web sources							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffi	ic engineering]				

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Common course						2003		
17 NS 4.58 3 10 14									AOEO1	
Course title			DATABASES IN TRAFFIC ENGINEERING							
Department		Dep Eng	oartme	nt of Infor	mation an	d Comi	munication Syst	ems, Facult	ty of	Transport and Traffic
C	Code	<u> </u>		Course status Seme			Semes	ter		ECTS credits
САФ11С30	7233845,	0320	1		elective		IV			5,00
Professor/s	Ph.	D. Go	ordana	Jotanovic	, Assistant	Profes	sor			
Associate/s										
	Weekly h	hours Individual student hours (per semeste)	Student workload coefficient S _o
L	TE	E LE L TE LI								So
3	2			0	30		30	0		1,2
Total teach	ner worklo	oad (hours,	per semes	ter)		Total student v	vorkload (h	ours	, per semester)
W = 3*15 ·	+ 2*15 + (D*15	= 45 +	30 = 75 hc	ours	T =3*	15*1,5 + 2*15*	1,5 + 0*15*	*1,5 =	= 45 + 30 + 0 = 75
		Tota	al work	load: W +	$T = U_{opt} = 6$	50 + 90	= 150 hours pe	r semester		
	At	the e	end of	the course	the stude	nt will	be able to und	erstand the	e ess	ence of working with
	dat	abas	es:							
Course aims an	d 1. t	o un	derstai	nd and kno	ow how to	use da	ta in traffic eng	ineering		
learning outcon	nes 2. t	o for	m its r	eference d	latabases i	n an ac	equate enviror	iment		
	3. t		nnect v	arious dat	abases and	a pract	ically use them	in traffic en	igine	ering
Drononvisitos	4. (.o ue	velop c	latabases						
Teaching meth		al nro	contat	ion Labor	atory ever	ricoc				
Teaching metho	1 010		concer	ots of data	hases	.1565.				
	2 [Datah	nase sti	ncture	<i>Dases</i> .					
	3 6	Basic	eleme	nts of the i	database					
	4. (Colled	ction of data from traffic engineering.							
	5. E	Big Da	Data.							
	6. 1	Mode	eling of	data from	traffic eng	gineerii	ng.			
	7. [Datab	base cr	eation lang	guages.		-			
Course content	8. 0	Colloc	quium	1						
	9. [Data	Base N	lanagemer	nt System ((DBMS)).			
	10.	Data	bases i	n traffic er	ngineering.					
	11.	User	base n	nanageme	nt.					
	12.	Data	bases i	n traffic sa	ifety.					
	13.	Stora	nge - ar	chiving of	data / info	rmatio	on from traffic e	ngineering.		
	14.	Secu	rity of	databases	from traffi	ic engir	neering.			
	15.	Collo	quium	2		1.1	•			
				Nama	I exto	DOOK (S) uhlishar	Vee	-	Deges (from to)
Autho	1/5		Infor	mation su	stems and	Datab	ase University	of		rages (nom-to)
G lotanovic G	Fact	Saraievo	Faculty of	f Trans	snort and Traf	6 201'	2			
d jotanovie d.,	Eust	eering	racuity o	i irun.		2012	2			
Henry A. S., Kor	th F.,		Data	base Svst	em Cond	epts.	Fourth Editio	n,		
Sudarshan S. McGraw-H					200			2002	1	
Ramakrishnan F	., Gehrke	J.	Data	base Man raw-Hill	agement	System	is, Third Editio	n, 2005	5	
			141CO		Addition	al read	ings			
Autho	or/s			Nam	e of public	cation,	editor	Yea	r	Pages (from-to)

A.Silberschatz, H. I Sudarshan,	Korth, S	Database Internatior	System nal Edition	Concepts,	McGraw	Hill,	200	5	
			Assesn	nent method	ls			Points	Percentage
	Pre-exa	n							
				lecture	es / exercise	es atten	dance	10	10%
						Colloqu	uium 1	15	15%
Evaluation criteria						Colloqu	uium 2	15	15%
						proje	ct task	10	10%
	Final exa	am							
						oral	l exam	50	50%
	TOTAL							100	100%
Web sources									
Applicable from	16.06.20	021 - 175 Se	ssion of th	e Councile, F	aculty of Ti	ranspor	t and T	raffic en	gineering

			UNIV Faculty of T S	ERSITY OF E/ Fransport and Study progra Profile: Comn	AST S d Tra im: T non d	SARAJEVO Iffic Engineering Traffic Course	g		Supervision of the second		
215 4 See 30			l cycle			II year of stu	dy		doro1		
Course title			Operations Research								
Department						-					
Co	de		Coι	ırse status		Semes	ter	ECTS credit			
САФ11С30720224	5,0320		elective IV				5,0	0			
Professor/s											
Associate/s											
w	eekly h	ours		Individua	al stu	dent hours (pe	er semester))	Student workload coefficient S₀		
L	TE	TE LE L TE							So		
3	2		0	3*15*1,4		2*15*1,4	0*15*1,4	ŀ	1,4		
Total teacher	worklo	bad (ho	urs, per semes	ter)		Total student	workload (h	ours	, per semester)		
3*15	+ 2*15 -	+ 0*15	= 75 hours		4.05	3*15*1,4 + 2*	15*1,4 + 0*	15*:	1,4 = 105 hours		
		otal wo	orkload: W+T=	U _{opt} = 75 + 3	105	= 180 hours	per semeste	er			
	Stu	dents s	nould be able i	lO: oring proble		sing linear and	intogor pro	~~~ ~	a main a		
		1. U	pumize engine	tion problem	ms u	sing inear and	integer pro	gran	iming		
Course aims and		2. 30	olve location n	rohlems	115						
learning outcome	<u>د</u>	2 II	nderstand the network planning technique								
		5. U	nderstand the	aueueing the	eorv	and its applicat	tion in trans	port	ation engineering		
		6. Ca	alculate the pa	rameters of a	appr	opriate queuin	g system mo	odels	5		
		7. A	pply basic mod	lels to real pr	oble	ms	0 - 1		-		
Prerequisites	Noi	ne		•							
Teaching method	s Lec	tures, t	heoretical exe	rcises, debat	es, se	eminars					
		1. Li	Linear programming								
		2. D	Duality problem								
		3. In	nteger Linear Pi	rogramming							
		4. Tr	ransportation p	problem							
		5. Lo	ocation optimiz	ation proble	ems						
		6. N	etwork plannir	ng technique	(CPN	M, PERT, PERT/	COST metho	ods)			
Courses		/. lp	partial examina	ation and tes	t						
Course content		8. G	ame theory	raphical and	anal	utical mathed	linoar progr		ning in game theory)		
		9. IV	upuping theory	aprilical ariu	anai licati	on in transport	ation engine	anni مorir	ning in game theory)		
		10. Q	ueuing system	s without wa	ncati	lines	ation engine	cem	15		
		12 0	ueuing system	s with waitin	o lin	es					
		13. Si	imulation (Mor	nte Carlo met	thod)					
		14. A	ppropriate soft	ware applica	ation	,					
15. Il partial examination and test											
				Textboo	ok (s						
Author/	s		Name	of publicatio	on, p	ublisher	Year	r	Pages (from-to)		
M. Čupić, M. Sukn	ović, G.	S	Special chapters in decision theory: quantitative 2004 1-370						1-370		
Radojević, V. Jova	nović	a	inalysis, Faculty	y of Technica	I Scie	ences, Novi Sad		·			
				Additional	read	ings					
Author/	S		Nam	e of publicat	tion,	editor	Year	r	Pages (from-to)		
D. Teodorović		a	ransportation and Traffic Engi	networks, Fa neering, Belg	grade	y of Transport	2007	7	1-428		
R. Božičković, I. Ni	kolić	C	Optimization m	ethods in tra	nspo	ortation	2007	7	1-228		

		problems, Faculty of Transport and Traffic Engineering, Doboj					
F.S. Hillier, G.J. Liebe	erman	Introduction to Operations Research, McGraw- Hill Series, Seventh Edition	ntroduction to Operations Research, McGraw- Hill Series, Seventh Edition 2001				
W.L.Winston, M. Venkataramanan		Introduction to Mathematical Programming: Operations Research, Vol. 1, 4th Edition, Thompson Learning	2002	2		1-1348	
		Assesment methods	Point	ts	Percentage		
	Preexan	nination obligations					
Fuch setion ententie	Tests (2		40	0	40 %		
Evaluation criteria	Partial e	examinations (2)		4(0	40 %	
	Final exa	amination				•	
	Oral exa	mination		20	0	20 %	
		10	00	100 %			
Web sources							
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	raffic e	ngine	ering	

-18		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							- Southan	1111 Variation	
· · · · · · · · · · · · · · · · · · ·		Profile: Common course									
10 10 10 10 10 10 10 10 10 10 10 10 10 1				<i>i ojne.</i> Co		ll vear of st	udv			40E0J	
Course title									- COM -		
Department	De	partme	ent of Mark	keting an	d Manag	ement, Facult	ty of Econom	ics ir	n Brčko		
Code			Coι	Course status Semester			ester		ECTS	credits	
CA411C20722	2745 0220	<u>,</u>	_	lastaval			1			5.0	
Professor/s	Associa) to Prof	essor Svotl	ana Torz	ić		/			5,0	
Associate/s	Associa	te Prof	essor Svetl	ana Terz	ić						
73500140075	71000010		23501 3421			_		_	Stude	nt workload	
Wee	ekly hours	ly hours Individual student hours (per seme							coe	fficient S _o	
L	TE		LE	L		TE	LE			So	
3	2		0	45	5	45	0			1,5	
Total teacher w	vorkload (hours,	per semes	ter)		Total student	workload (h	ours	, per se	mester)	
W=2*15 -	+ 2*15 + 0	*15 = 0	60 hours			T=2*15*So +	- 2*15*So + ()*15	*So = 90) hours	
	0	tal wor	kload: W+	I=Uopt=	60 + 90 =	= 150 hours p	er semester				
Course sime and	1. Intro	ducing	students to	o key cor	ncepts in	the field of m	arketing.	trata	aioc		
Course aims and	2. Nece	ssary k	nowledge a		s for defin	ning marketin	g goals and s	trate	egies.		
learning outcomes	J. BdSIC	s or ma	rketing me	anageme	ent.						
Proroquisitos	No prer										
Teaching methods	Lecture	tihus a	orv everci	ses semi	inar work	<i>,</i>					
reacting methods	1 Conc	ent and	d character	ristics of	services						
	2. Deve	lopmer	nt of servic	e market	ting.						
	3. Basic	differe	ences betw	een proc	ducts and	services.					
	4. The p	process	of decidin	g to pure	chase ser	vices.					
	5. Cons	umer b	ehavior in	havior in the process of purchasing services.							
	6. Servi	ce orga	nization m	arket res	search.	U					
	7. Servi	ce com	pany strate	egies							
Course content	8. First	colloqu	ium.								
	9. Pricir	ng of se	rvices.								
	10. Hun	nan res	ource mar	nagemen	t in the s	ervice sector.					
	11. Serv	ice pro	oduct mana	agement							
	12. Serv	vice dis	tribution c	hannels.							
	13. Serv	ice qu	ality and m	easuring	; custome	er satisfaction					
	14. Serv	/ice cor	npany con	trol.							
	15. Seco	ona col	loquium.	Tav	theok (a)						
Author/s			Namo		cation n	ublisher	Vea	r	Page	s (from-to)	
Kancir R		Mark	reting servi	ices Busi	iness Sch	ool Belgrade	2013	• >	rage		
		Mark	eting servi	rvices.	Faculty	of Econom	nics.				
Veljkovic, S	Veljkovic, S. Beograd						2009	Э.			
				Additio	nal read	ings					
Author/s			Nam	e of pub	lication,	editor	Yea	r	Page	es (from-to)	
Milisavljevic, M. &	Maricici,	Basic	s of ma	rketing,	Faculty	of Econom	nics, 2004	1.			
В.		Beog	rad			•					
	-		A	ssesmen	t metho	ds		Poi	ints	Percentage	
Evaluation criteria	Pre-exa	m oblig	gations	*				4.0		1.00/	
	Presenc	ce ot leo	ctures / ex	ercises				10		10%	
	Semina	r work						10		10	

	Colloquium	50	50%
	Final exam		
	Final exam (oral / written)	30	30%
	TOTAL	100	100 %
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport	and Traffic	engineering

The road transport and traffic

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineerin	g				Strat	2005 AINH @ 48 19										
The second se			Study program: Traffic Profile: The road transport and traffic																
Number		Code	Code Course title					e Course title dittion ality				de Course title Status						per ter	ECTS
				0	ğ		L	TE	LE										
			III year of study		[L													
28.	САФ11СД	07134056,0230	The theory of traffic flow	0		V	2	3	0	6.00									
29.	САФ11СД	07102956,0221	Urbanism	0		V	2	2	1	6.00									
30.	САФ11СД	07103356,0320	Roads	0		V	3	2	0	6.00									
31.	САФ11СД	07103155,0220	Ecology in traffic	0		V	2	2	0	5.00									
32.	САФ11СД	07103257,0330	Transhipment mechanization and technology	0		V	3	3	0	7.00									
33.	САФ11СД	07103566,0321	Regulation of traffic flows	0	28	VI	3	2	1	6.00									
34.	САФ11СД	07134266,0330	Public transport of passengers	0		VI	3	3	0	6.00									
35.	САФ11СД	07133966,0230	Road capacity and Level of Service (LOS)	0	28	VI	2	3	0	6.00									
20	САФ11СД	07203065,0220	Road vehicle dynamics			VI	2	2	0	F 00									
36.	САФ11СД	07203865,0220	Management in traffic	12		VI	2	2	0	5.00									
27	САФ11СД	07203465,0220	55,0220 Vehicle operation and maintenance			VI	2	2	0	F 00									
37.	САФ11СД	07203965,0220	Motors SUS	13		VI	2	2	0	5.00									
38.	САФ11СД	07132962,0000	Professional practice	0		VI	0	0	0	2.00									
					т	OTAL:	24	24	2	60									
			IV year of study																
39.	САФ11СД	07104375,5220	Training education	0		VII	2	2	0	5.50									
40.	САФ11СД	07104177,0330	Traffic terminals	0		VII	3	3	0	7.00									
41.	САФ11СД	07104276,0220	Evaluation in traffic	0	35	VII	2	2	0	6.00									
42.	САФ11СД	07104575,5220	Organization of traffic companies	0		VII	2	2	0	5.50									
43.	САФ11СД	07134176,0230	Road freight transport technology and organisation	о	34	VII	2	3	0	6.00									
44.	САФ11СД	07104885,0311	Traffic accidents investigation	0		VIII	3	1	1	5.00									
45.	САФ11СД	07104786,0330	Traffic safety	0		VIII	3	3	0	6.00									
46.	САФ11СД	07104085,0211	Transportation planning	0		VIII	2	1	1	5.00									
47	САФ11СД	07219385,0220	Expertise of traffic accidents	1		1/111	n	n	0	E 00									
47.	САФ11СД	07205085,0220	205085,0220 Traffic design			VIII	2	2	0	5.00									
12	САФ11СД	07203685,0220	1. Intermodal transport	1-		VIII	2	2	0	5.00									
+0.	САФ11СД	7204985,0220 2. Freight forwarding		15		VIII	2	2	0	5.00									
49.	САФ11СД	07105284,0030	Graduate thesis	0		VIII	0	3	0	4.00									
					т	OTAL:	24	24	2	60									

- •
- L lectures TE theoretical exercises LE laboratory exercises •
- ٠

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: The road transport and traffic I cycle III year of study					2003 Southaine organist	
Course title					The th	neory of traffic	flow		
Department		Departm	ent of Road	d Traffic ar	nd Trans	port- Faculty o	f Transport	and	Traffic Engineering
	Code		Co	urse statu	5	Semes	ter		ECTS credits
САФ11СДО	07134056,	0230	Co	mpulsory		V 6,0			
Professor/s	Ma	rko M. Su	ootić						
Associate/s	Du	nja Radovi	ć Stojčić	•					
	Weekly h	ours		Individ	lual stu	dent hours (pe	r semester))	Student workload coefficient S _o
L	TE		LE	L		TE	LE		So
2	3		0	42		63	0		1,4
Total teacl	her worklo	bad (hours	, per semes	ster)		Total student v	workload (h	ours	, per semester)
2*1	15 + 3*15	+ 0*15 =	75 hours			2*15*1,4 + 3*	15*1,4 + 0*	15*1	1,4 = 105 hours
		Iotal wo	rkload: W+	I=U _{opt} = 75	+ 105	= 180 hours pe	r semester		
	Ву 1. ł	mastering pe familiai	with the b	asic paran	will be a neters o	ble to: f traffic flow, t	he basic dia	agrai	m and characteristics
	of t	the traffic	flow						
Course aims an	d 2. §	get acquai	nted with t	the empiri	cal and	mathematical	models use	ed to	o describe the traffic
learning outcor	mes flow	N							
	3. (obtains re	iable theor	etical four	ndations	for profession	al and rese	arch	work in the fields of
	tra	ffic engine	ering						
	4. s	simulate a	nd approxin	nate real a	nd idea	traffic flows			
Prerequisites	No	ne							
Teaching metho	ods Leo	tures, exe	rcises, semi	nars					
	1.5	subject an	d tasks of tr	affic flow 1	theory				
	2.1	viovement	of a single	venicie	rata	doncity yohiol	o coood)		
	3.6	Basic traffi	c flow parai	meters (IIC	ow rate,	density, venici	e speed) v speed tra		ime)
	4.1		for determ	necers (sp nining the	mean sr	atial sneed an	d moving of	hser	ver method
	6 9	Specific fe	atures of the	e traffic flo	w	atial speed an		0301	ver method
	7.1	The First c	olloquium						
	8.1	Temporal v	variation of	traffic flov	v, desigr	n traffic flow fo	r dimensior	ning	the road cross-
Course content	: sec	tion		-	. 0	-	-	0	
	9.	Basic traff	ic flow diag	ram					
	10	Empirical	models						
	11.	Empirical	models of a	dependend	ce betwo	een the flow ra	te, density a	and	medium spatial
	spe	ed							
	12.	Mathema	tical model	s for descr	ibing co	nditions in the	traffic flow		
	13.	Macrosco	pic models	- wave the	ory and	stochastic mat	thematical r	node	eis
	14.		ameters for	uescribing	g pedest	rian and bicyci	e traffic flow	N	
	15.		ia conoqui	Text	book (s)				
Autho	or/s		Name	of publica	ation. pl	ublisher	Year	r	Pages (from-to)
Ljubiša K	(uzović		Teo IRO Gi	orija saobra rađevinska	aćajnog knjiga I	toka, Beograd	1987	7	1-221
Љубиша Куз	зовић, Вун	·	еорија сао	браћаіног	тока. Ф	- ТН Нови Сад	2010)	1-337
Богдан	овић		. ,	۰ ماماند، م		nac			
Autho	or/s		Nam	Addition	cation	ngs editor	Vac	,	Pages (from to)
	ariadou			uction to "	Traffic F	ow Theory	201/	1	1_262
							2014	+ 1	1-202 Charper 1 10
I KB (FF	TVVA)		IVIUNUGRA		AFFIC FL	OW THEORY	2000	J	Charper 1-10

	Assesment methods	Points	Percentage
	The regular attendance of the classes	10	10 %
Evoluction exiteria	Semestral work	20	20 %
Evaluation criteria	Colloquiums/tests	70	70%
	The final exam	70	70 %
	Total	100	100 %
Web sources			
Applicable from	16.06.2021. – 175th Session of the Council of the Faculty of Transpo	rt and Traffio	c Engineering

		UNIVERSITY OF EAST SARAJEVOFaculty of Transport and Traffic EngineeringStudy program: TrafficProfile: The road transport and trafficI cycleIII year of study						ACEO CONTRACTOR	
Course title		URBANIS	M						
Department		Departme	ent of Traff	ic Enginee	ring				
C	Code		Coι	urse status		Semes	ster		ECTS credits
САФ11СДО	7102956,	0221	Μ	andatory		V			6,0
Professor/s	Drl	Milenko Sta	nkovic, fu	ll-professo	r				
Associate/s	Dri	villenko Sta	INKOVIC, TU	I-professo	r				Student workload
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester)		coefficient So
L	TE		LE	L		TE	LE		So
2	2		1	42		63	0		1,4
Total teach	ner worklo	bad (hours,	per semes	ter)		Total student	workload (h	ours	, per semester)
2*1	20±454	+0*15 = W	hours			X*15*S ₀ + `	Y*15*S₀ + Z¹ 2±62±0= 10¤	*15* 5 hou	$S_0 = 1$ hours
	307431	Total w	, orkload: V	V+T=Uont=	+ =	hours per s	emester	5 1101	
			7	5+105=18) hours	= U _{opt}			
	By	mastering t	his course	, student w	/ill be a	ble to:			
Course aims an	d	1. acqui	re a basic k	nowledge	of urba	inism;			
learning outcom	nes	2. get to	know wit	n urbanism	institu	tions;	ling place.		
		3. analy:	acquired k	g problems	in prac	epena on awei	ling place;		
Prerequisites	-	ч. арріу	acquireur	liowieuge					
Teaching metho	ods Lec	tures, Exer	cises, Con	cultations					
Course content	ching methods Lectures, Exercises, Concultations 1. Urbanism - content and course objectives 2. City as a spatial phenomenon 3. Movement in urban theory and practice - methods and techniques 4. Local self-government and urban planning 5. Urbanism institutions 6. Sustainable human settlement development and environmental protection 7. Urban infrastructures and equipment (I colloquium) 8. City architecture - city as a culture object 9. Urban symbols, visual communication and urban traffic network signalizations 10. Urban morphology 11. Urban life problems and dwelling place 12. Village urbanization - the relationship between village and city 13. Dwelling, work, sport and recreation in the city 14. New Athens Charter 15. City traffic and public transportation modes (II colloquium)							ection alizations	
0+h-a			Nome	Text	ook (s)	. hlich e	Vee		Denne (from to)
Autho	DT/S	Livoo	u prostori	or publica	stičko n	laniranie	real		Pages (from-to)
Toškovi	ić, D.	Akad	emska mis	ao Beogra	d		2006	6	
Stankov	ić, M.	Harn	nonija i kor	nflikt u pro	stor,		2007	7	
		AIIII		Addition	al readi	ngs			
Autho	or/s		Nam	e of public	cation,	editor	Year	r	Pages (from-to)
Stankov	ić, M.	<i>Prost</i> Knjiž	orno-terito evna zadru	orijalno od Iga RS, Bar	rživ raz jaluka	voj u LEAP,	200	4.	

	Assesment methods	Points	Percentage
	Pre-exam obligations		
	e.g. lecture/exercise attendence	10	10 %
	a term paper	60	60%
	e.g. a case study - group working	/	/
Evaluation criteria	e.g. tests /colloqiums	2x15	30%
	e.g. labaratory exercises	/	/
	e.g. a practial work	/	/
	Exam		
	e.g. an oral/written exam		
	TOTAL	100	100 %
Web sources			
Applicable from	16.06.2021. – 175. sessions of Teaching-Scientific Council of the Facu	ulty of Trans	port and
	Traffic Engineering		

Sec. 2 Net Chick		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2005 anning @gg	
-18-		Study program: Traffic							
**************************************		Profile: The road transport and traffic							
1015 4500 JO	ine iouu li	unspoi	Lyear of stu	dv		TOPOT			
Course title	ROADS								
Department Department of Road Traffic and Transport - Faculty of Transportation Doboi						tion Doboi			
Code		Cou	Irse status		Semes	ster	E	CTS credits	
САФ11СЛ07103	256 0220	r	equired					6.00	
Professor/s	Prof Pag	lovan Viskovic P	b D Eng tr	affic	VI			0,00	
Associate/s	Mr Rade	nka Bielosevic, S	enior Assist	tant					
	- mininaac						Stu	udent workload	
Wee	kly hours		Individu	ual stud	dent hours (pe	er semester		coefficient S _o	
L	TE	LE	L		TE	LE		So	
Х	Y	Z	X*15*S	0	Y*15*S _o	Z*15*S。			
Total teacher w	orkload (h	nours, per semes	ter)		Total student	workload (h	ours, per	semester)	
X*15 + \	(*15 + Z*1	5 = W hours	· · ·		X*15*S ₀ + Y	Y*15*S ₀ + Z	*15*S _o =	T hours	
	T	otal workload: V	V+T=U _{opt} =	+ =	hours per s	emester			
Course aims and	By maste	ering this course	the studen	t will b	e able to: of roads and cit	v roads:			
learning outcomes	2 Calcul	ate the elements	of the rou	te in th	n i uaus allu Cli ne transverse a	nd longitud	linal prof	ile	
learning outcomes	3. Indep	endently design i	intersection	is and	participate in I	road constru	uction:	iie,	
Prerequisites	No speci	al conditions							
Teaching methods	Lectures	. auditory exercis	ses, semina	r work	fieldwork				
	1. Classif	fication of roads	and city roa	ads	,				
	2. Road a	2. Road and surroundings							
	3. Desigr	3. Design methodology. Operational and technical indicators							
	4. Releva	4. Relevant design factors							
	5. Eleme	5. Elements of project geometry. Route in space							
	6. Track	elements in the l	ongitudina	l profil	e. Elements of	transparen	су		
	7. Norma	al geometric and	constructiv	ve cros	s-section (I col	loquium)			
Course content	8. Desigr	n of road junctior	ns - interseo	ctions					
	9. Influe	nce of road elem	ents on dri	ving sa	fety. Lower ro	ad machine			
	10. Road	l construction							
	11. Facili	ities on the road							
	12. Road	I construction. Ro	oad equipm	nent					
	13. Traff	ic at rest. City ro	ads						
	15 Door	i maintenance	colloguium	2)					
	15. KOA0	i management (II	Tevth						
Author/s		Name	of publicat	ion. n	ublisher	Va	ar	Pages (from-to)	
Mihailovic, D	_	Written lectur	es and pres	sentati	ons. Bania Luk	a 2007/	2008.		
			Additiona	l readi	ngs				
Author/s		Nam	e of public	ation,	editor	Ye	ar	Pages (from-to)	
-		A	ssesment n	nethod	ls		Points	Percentage	
	Pre-exan	n obligations							
			att	endan	ce at lectures,	exercises	10	10%	
Evaluation critoria					annual a	ssignment	20	20%	
Lvaluation criteria					test / c	olloquium	2x25	50%	
	Final exa	im							
				fi	nal exam (oral	/ written)	20	20%	
	IN TOTA	L					100	100%	
Wah sources	INTOTAL 100 100%								
web sources									

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: The road transport and traffic I cycle I year of study								
Course title				E	COLOGY IN TRA	FFIC				
Department		Departme	ent of Road	Traffic and Tra	nsport- Faculty	of Transport	and ⁻	Traffic I	Engineering	
Code			Со	urse status	Seme	ster		ECTS	credits	
САФ11СДО	7103155,	0220	m	andatory	V			5.00		
Professor/s	Mil	an Milotić,	Associate	Professor						
Associate/s	Mil	an Milotić,	Associate	Professor						
	Weekly h	ours		Individual s	tudent hours (po	er semester))	Stude coe	nt workload efficient S _o	
L	TE		LE	L	TE	LE			So	
2	2		0	2*15*1,5=45	2*15*1,5=4 5	2*15*1,4=	=0		1,5	
Total teach 2*1	er worklo 5 + 2*15	oad (hours, + 0*15 = 60	per semes D hours	ter)	Total student 2*15*1,5 + 2	workload (h 2*15*1,5+ 0*	ours, *15*1	per sei L,5 = 90	mester) hours	
		Total worl	kload: W+	Γ=U _{opt} = 60 + 90) = 150 hours p	er semester				
	Ву	mastering t	his course	students will be	e able to:					
	1. a	nalyze the	problems	of environment	al pollution;					
Course aims and	d 2.g	get acquain	ted with no	ormative and le	gal regulations r	elated to en	viron	mental	protection;	
learning outcon	nes 3. g	get acquain	ted with th	ne global effects	of pollution;					
	4. g	get acquain	ted with th	ie tendencies o	future develop	ment of mot	or ve	hicle pr	ropulsion as	
	we	ll as to appl	y the acqu	ired knowledge	in practice.					
Prerequisites	nor	1e								
Teaching metho		tures, audi	tory exerci	ses, consultatio	ns					
	2. F 3. N 4. N	Problems of Normative a Maximum a	environm and legal re llowable c	ental pollution egulations oncentrations						
	5. A	Air pollution	and prote	ection						
	6.1	Normative a	nd legal re	egulations on ai	r quality					
	7.1	colloquium	n							
Course content	8. F	lue gas pur	ification							
	9.0	Slobal effec	ts of pollu	tion						
	10.	Traffic and	environm	ental pollution						
	11.	Impact of t	raffic on th	he environment						
	12.	Normative	and legal	regulations for a	exnaust gas emis	ssions	c			
	13.	Tendencie	s of future	development o	f motor vehicle	nronulsion	5			
	15.		im	development o		propulsion				
				Textbook	(s)					
Autho	r/s		Name	of publication,	publisher	Yea	r	Page	es (from-to)	
Đurić, S., Star	nojević, P.	, Ek	ologija u s	aobraćaju, Sao	braćajni fakultet	t and	~			
Milotić	, M.			Doboj		201	D			
				Additional rea	adings					
Autho	r/s		Nam	e of publicatio	n, editor	Yea	r	Page	es (from-to)	
			Α	ssesment meth	ods		Poir	nts	Percentage	
	Pre	-exam oblig	gations							
Evaluation crite	ria			attend	ance at lectures	/ exercises	10		10%	
						colloquium	2x2	5	50%	
					t	term paper	10		10%	

	Final exam		
	Oral exam	30	30%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

Course title TRANSHIPMENT MECHANIZATION AND TECHNOLOGY Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering	ring				
I cycle III year of study Course title TRANSHIPMENT MECHANIZATION AND TECHNOLOGY Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering	ring				
Course title TRANSHIPMENT MECHANIZATION AND TECHNOLOGY Department Department of Transport Engineering - Faculty of Transport and Traffic Engineering	ring dits				
Department OF Transport Engineering - Faculty of Transport and Traffic Enginee	ring dits				
rtment Department of Transport Engineering - Faculty of Transport and Traffic Engineering Doboj					
Code Course status Semester ECTS cre					
САФ11СД07103257,0330 mandatory V 7.00					
Professor/s PhD Ratko Đuričić, full professor					
Associate/s Sanja Simić, senior assistant					
Weekly hours Individual student hours (per semester) Student coeffic	orkload ent So				
L TE LE L TE LE S)				
3 3 0 3*15*1,4=63 2*15*1,4=4 0*15*1,4=0 1,	4				
Total teacher workload (hours, per semester) Total student workload (hours, per semester)	ter)				
3*15 + 2*15 + 0*15 = 75 hours 3*15*S ₀ + 2*15*S ₀ + 0*15*S ₀ = 105 hou	rs				
Total workload: W+T=U _{opt} = 75 + 105 = 180 hours per semester					
By mastering this course, students will be able to:					
1. Understand the basic principles of the place, role and importance of transhipmen	ainc of				
processes in reproduction, will be able to understand the cause-and-effect relations	lips of				
2 They will be able to analyze the parameters that affect transhipment learn the di	vision of				
means of mechanization as well as their good and bad properties					
Course aims and 3. They will be able to use methods for calculating capacity and required power for					
learning outcomes continuous and cyclical transhipment facilities.					
4. Will be able to demonstrate the establishment of transhipment systems with tran	shipment				
effects.	-				
5. Manage transhipment processes, and that, after gaining practical experience in lo	gistics				
centers, they manage certain sectors or organizations that are responsible for transl	ipment				
processes.					
Prerequisites None					
Teaching methods Lectures, auditory exercises, consultations					
1. Introduction to the subject. Basic concepts of mechanization and transhipment te	chnology.				
I he role of the transhipment process					
2. Transhipment task and realization of transhipment process					
4 Articulated conveyor Conveyor scraper					
5. Elevators, Redlers, Hanging conveyor					
6. Worm screw conveyor. Rotary excavator. Pneumatic conveyors (Preparation for t	ne first				
colloquium)					
7. Feeders. Gravity conveyors (I colloquium)					
8. (Analysis of the first colloquium) CYCLIC MEANS - Transport-handling vehicles					
9. Forklift - classification, elements, stability, application					
10. Forklift - handling cycle. Determination of power for vehicle movement					
11. Transport-handling vehicles for handling containers. Shelves lifts					
12. Cranes - classification, elements, application, loading cycle, power determination					
13. Automatically guided vehicles. Design of transhipment processes (Preparation fo	i the II				
15. (Analysis of the II Colloquium) Closing remarks and signature of the index					
Textbook (s)					
Author/s Name of publication, publisher Year Pages (rom-to)				

		Transhipment mechanization, scripts, Doboj Faculty of Transport and Traffic Engineering	2006.			
		Mechanization of transshipment, transshipment machines and design of transshipment processes, Belgrade	1996.			
		Internal transport, warehouses and transhipment, Faculty of Transport and Traffic Engineering, Belgrade	2001.			
		Additional readings				
Author/s		Name of publication, editor	Year		Page	es (from-to)
		Assesment methods	l	Poi	nts	Percentage
	Pre-exa	Assesment methods n obligations		Poi	nts	Percentage
	Pre-exai	Assesment methods m obligations attendance at lectures / exe	ercises	Poi 10	nts	Percentage
	Pre-exai	Assesment methods m obligations attendance at lectures / exe teaching a	ercises	Poi 10 5	nts	Percentage 10% 5%
Evaluation criteria	Pre-exai	Assesment methods n obligations attendance at lectures / exe teaching a passed colloquia (assigni	ercises activity ments)	Poi 10 5 35	nts	Percentage 10% 5% 35%
Evaluation criteria	Pre-exai	Assesment methods n obligations attendance at lectures / exe teaching a passed colloquia (assigni passed colloquia (t	ercises activity ments) heory)	Poi 10 5 35 50	nts	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exai	Assesment methods n obligations attendance at lectures / exe teaching a passed colloquia (assign passed colloquia (t am	ercises activity ments) heory)	Poi 10 5 35 50	nts	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exar	Assesment methods m obligations attendance at lectures / exe teaching a passed colloquia (assigni passed colloquia (t am for example. final exam (oral / w	ercises activity ments) heory) rritten)	Poi 10 5 35 50	nts	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exan	Assesment methods n obligations attendance at lectures / exe teaching a passed colloquia (assign passed colloquia (t am for example. final exam (oral / w L	ercises activity ments) heory) rritten)	Poi 10 5 35 50 100	nts)	Percentage 10% 5% 35% 50% 100%
Evaluation criteria Web sources	Pre-exar	Assesment methods m obligations attendance at lectures / exe teaching a passed colloquia (assigni passed colloquia (t am for example. final exam (oral / w L	ercises activity ments) heory) ritten)	Poi 10 5 35 50 100	nts)	Percentage 10% 5% 35% 50% 100%

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: The road transport and traffic							
Course title			i cycle		Dogul	III year of st	flows			
Donartmont		Dopart	mont of Tran	contation	Engon		nows	rt an	d Traffi	ic Engineering
Department		Depart		sportation	Engene	ering - Facult	y of franspo	int an	u Irain	ic Engineering
Co	ode		Cou	urse status	;	Seme	ster		ECTS	6 credits
САФ11СД07	103566,	0321	Со	mpulsory		VI				6,0
Professor/s	Ma	rko M. S	ubotić							
Associate/s	IVIa	rko IVI. S	ubotic						<u> </u>	
v	Veekly h	ours		Individ	ual stu	dent hours (po	er semester))	Stude	efficient So
L	TE		LE	L		TE	LE			So
2	3		0	42		63	0			1,4
Total teache	er worklo	oad (hou	rs, per semes	ter)		Total student	workload (h	ours	, per se	mester)
2*15	+ 3*15	+0*15 =	= 75 hours			2*15*1,4 + 3*	*15*1,4 + 0*	[•] 15*1	L,4 = 10	5 hours
		Total w	orkload: W+1	=U _{opt} = 75	+ 105	= 180 hours p	er semester			
	By 1.	masterin Understa	g this course and regulatio	students v n of traffi	vill be a c flows	ble to: and design e	elements of	traf	fic sign	aling on road
Course aims and	net	works								
learning outcom	es 2. A	Acquire a	nd competer	ice skills fo	or traffic	desing and re	egulaton			
	3. A	Acquire a	nd competer	ices for tra	iffic ma	nagement at i	ntersections	and	traffic	networks
	4. <i>F</i>	Acquire b	asic knowled	ge about t	he app	lication of ITS				
Prerequisites	No	ne								
Teaching method	ds Leo	tures, ex	ercises, semi	nars, Field	work					
Course content	1. 1 2. 0 3. N 4. 0 5. 1 6. 9 7. 1 8. L 9. F 10. 11. 12. 13. 14. 15.	ntroduct Compone Network. Crossroad Fraffic reg Signalizat Fhe First Light sign Phase pla Coordin Adaptat Strategic Regulati Mainter The Secc	to the trans ents of the trans Streets. Traff ds and comple gulation by lig- cion of crossro colloquium als for regula an of the signa- ated signaling ole traffic mar- es for solving ng and mana- bance of traffic	fric regula iffic systen fic mode. 1 ex crossroa ght signalli bads ting inters aled inters aled inters agement congestio ging traffic ic signaliza m	tion tec n. Traffi Fraffic c ads ng ections ections ection. systems n on the c on the tion. Sp	c signalization alming. Speed Calculation mo s. Priorities of e city network road and stre pecific cases. F	control ethods of co the PUPT ve et network. inal speech	ntrol hicle Appl	param	eter of ITS
Author	/s		Name	of publica	tion n	ublisher	Vea	r	Pag	es (from-to)
Additor	, .		Regulis	anie saob	raćainih	tokova.	100	•	1 ag	
Smiljan Vuk	anović		(CD izdanje,	SF Dob)0j	201	2		All
Marko Sul	botić		zbirka reše regulisanja s	nin zadata aobraćaja Beog	ка iz pr - Saobra irad	ojektovanja i aćajni fakultet	201	2		1-96
				Addition	al read	ings				
Author	/s	.,	Nam	e of publi	cation,	editor	Yea	r	Pag	es (from-to)
Osoba Miroslav,	Vukano ć Branko	VIĆ	Upravljanje s	saobraćaje Saobraćaje	m pom i fakulti	ocu svetlosnih et Beograd	199	9		1-153
Sinijan, Stalli		, I		sesment	methor	le beograu		Poi	nts	Percentage
Evaluation criter	ia —									. crocinage

	The regular attendance of the classes	10	10 %								
	Semestral work	20	20 %								
	Colloquiums/tests	70	70%								
	The final exam	70	70 %								
	Total	100	100 %								
Web sources											
Applicable from	16.06.2021. – 175th Session of the Council of the Faculty of Transpo	rt and Traffi	c Engineering								
	New York		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						Satural Hit Oda T		
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	1 X X		Profile:	Study prog The road t	ram: T	raffic rt and traffic					
1915 4 Stra JO 1915			I cycle I year of study								
Course title			PUBLIC TRANSPORT OF PASSENGERS								
Department		De	Department of Road Traffic and Transport - Faculty of Tra						ortation Doboj		
C	ode		Сон	urse status	5	Semester			ECTS credits		
САФ11СД07	7134266,	0330	reguired VI					6,00			
Professor/s	Pro	f. Slaven N	. Tica, Ph.I	D. Eng. traf	ffic	•			·		
Associate/s	Mr	Radenka B	jelosevic, S	Senior Assis	stant						
١	Weekly h	ours	Individ		lual stu	dent hours (pe	r semester)		Student workload coefficient S _o		
L	TE		LE	L		TE	LE		So		
Х	Y		Z	X*15*	So	Y*15*S₀	Z*15*S _o				
Total teach	er worklo	kload (hours, per semester) Total student workload (ours,	per semester)		
X*1	5 + Y*15	*15 + Z*15 = W hours X*15*S ₀ + Y*15*S ₀ + Z*15*S ₀ = T hours									
		Total workload: W+T=U _{opt} = + = hours per semester									
	By	mastering t	his course	the stude	nt will b	e able to:					
Course aims and	1. t	o define pr	oblems rel	ated to pa	ssenge	r transport in ci	ties				
learning outcom	nes 2. t	o define th	e basic ter	ms and co	ndition	s in JMTP					
Ū	3. t	o describe	and quant	ify the basi	ic chara	icteristics of pu	blic mass pa	assen	iger transport		
	(JM	ITP) techno	logy so tha	at they can	pertor	m a comparativ	e analysis c	of the	e performance of the		
	JM	JMTP system.									
Prerequisites	No	special cor	ditions			<u></u>					
Teaching metho	ds Lec	tures, audi	tory exerci	ses, semin	ar work	k, fieldwork					
	1.0	Cities and p	assenger t	ransport sy	/stems.						
	2. T	2. Transport systems and subsystems in passenger transport in cities 3. Types of services in JMTP									
	3. T	ypes of ser	vices in JIV	1TP							
	4.1	ransport p	nsport process - quality loop nsport needs and requirements. Transport offer								
	5.1	ransport n	sport needs and requirements, Transport offer								
	6. J	MIP transp	ort netwo	rks							
Course content	7.5	tatic and d	ynamic cha	aracteristic	CS OT TIV	I JIVITP (I COlloq	uium)				
Course content	0. J	ivi i Pillie. F	unctioning	, OI JIVITP							
	9.1	Tariff cycto	me ticket	sustams a	nd hillir						
	10.	Results of	work in na	systems di	nu viiili ancnort	ъ					
	12	Quality of	systems ar	nd services	in IMT	P					
	13	JMTP syste	em plannin	g.							
	14.	Objectives	of the syst	em. Condi	ition an	alvsis and cond	lition assess	men	t		
	15.	Improvem	ent and de	velopmen	t of JM ⁻	TP system (II co	lloquium)		-		
				Text	book (s)		, ,				
Author	r/s		Name	of publica	tion, p	ublisher	Yea	r	Pages (from-to)		
		Pub	lic passeng	er transpo	ort syste	ems: Elements o	of				
Slavon 7	Ties	te	chnology,	organizati	on and	management,	2010	,	مال		
Slaven	lica	Fa	Faculty of Transport and Traffic Engineering, 2019					dli			
			Belgrade								
		0	ganization	and techr	nology (of public urban		T			
Radovan Ba	ankovic	ра	ssenger tra	insport, Fa	culty of	f Transport and	1995	5	all		
			Traff	ic Enginee	ring, Be	lgrade					
Snozana M	Filinovic	0	Optimizations in the public urban passenger				, T	الد			
	προνις		transport system 19				1995	,	all		
				Addition	al read	ings					
Author	r/s		Nam	e of publi	cation,	editor	Year	r	Pages (from-to)		

Vukan Vuchic		Urban Transit Operation, Planning and Economics 2005				all			
		Assesment methods		Poi	nts	Percentage			
	Pre-exa	Pre-exam obligations							
		attendance at lectures / exe		10	10%				
Evaluation critoria		positively evaluated seminar paper / project ,		20	20%				
Evaluation criteria		test / collo		70	70%				
	Final exam								
		final exam (oral / w							
	IN TOTA	L		100	100%				
Web sources	Neb sources								
Applicable from	16/6/2021 - 175th session of the Council of the Traffic Faculty								

Set y INCTOYHO			UNIV	ERSITY OF	EAST S	ARAJEVO			2005		
- <u>18</u> .		Faculty of	Transport a	and Tra	fic Engineering	<u>g</u>		South and the second second			
			Dusfiles	Study prog	ıram: Tı	affic					
)		I cycle III year of study								
Course title	-		Гсусіе	Road	canacity	ill year of stu	uy Service (LOS	5)	and formula supplying		
Department		Departme	ent of Road	and	Traffic Engineering						
·	Code		Сон	urse status	;	Semester			ECTS credits		
САФ11СДО	07133966	,0230	Cc	mpulsory		VI			6,0		
Professor/s	Ma	arko M. Sub	otić	. ,					,		
Associate/s	Du	nja Radović	Stojčić								
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semester))	Student workload coefficient S₀		
L	TE		LE	L		TE	LE		So		
2	3		0	30		30	0		1,5		
Total teac	her workl	oad (hours,	per semes	ter)		Total student v	vorkload (h	ours	, per semester)		
	2*15 + 2*	15 + 0*15	= W			2*15*1,5	+ 2*15*1,5	+ 0*	15*1,5 = T		
	30+ 3	30+ 0= 60 h				2	15 + 45 + 0 =	= 90	h		
		Total	workload:	U _{opt} = 60 +	90 = 15	0 hours per se	mester				
	By	mastering t	his course	students v	vill be a	ble to:					
	1.	Analyzes an	d practical	ly applies of the	capacity	analyzes			of the meture of		
	2.	dontify not	etalled ana	lyzes of the	e Servic	e Level for all f	unctional pa		of the network		
Course aims an	d <u>4</u>	Performs si	entify network bottlenecks and propose adequate technical measures to eliminate them								
learning outcom	mes 5	Conducts functional evaluation procedures for real problems									
	6.	Functionally	evaluates	the propo	sed pro	ject solutions					
	7.	For plannin	g, design a	and operat	ional ca	pacitive analy:	sis of all fur	nctio	onal parts of the road		
	an	d street net	work								
Prerequisites	Pa	ssed exam:	The theory	of traffic	flow						
Teaching meth	ods Lee	ctures, exer	cises, semi	nars							
	1.	Basic charad	teristics o	f traffic flo	ws and	road elements	significant f	for C	Capacity and Level of		
	Sei	vice analys	S 	с. <u>сс</u> а							
	2.	Basic charac	cteristics of	t traffic flo	ws and	road elements	significant	for C	apacity and Level of		
	3	Vice dildiys Primary lov	is als of Cana	city and Le	wel of S	orivco analysis					
	4.	General me	thodologic	al approac	ch in Cai	pacity and Leve	l of Service	ana	lysis of urban and		
	rur	al roads		al applead							
	5.	Capacity an	d Level of S	Service and	alysis of	Basic Freeway	Segments				
	6.	Capacity an	d Level of S	Service and	alysis of	Freeway Weav	ving Segmer	nts a	nd Freeway Merge		
Course content	an	d Deverge s	egments								
	7.	Capacity an	d Level of S	Service and	alysis of	Freeway Facili	ties: operat	iona	l, design and		
	pla	nning analy	sis proced	ures (The	First col	loquium) Tura Lana Liiak					
	8.	Capacity an	d Level of s	Service and	alysis of	Iwo-Lane High	iways				
	10	Canacity an	nd Level of .	Service and	nalvsis or	f Signalized Int	ersections				
11. Capacity and Level of Service analysis of Urban Street Segments											
	12	Capacity a	nalysis me	thods of Bi	us Lanes	on Arterials					
	13	Capacity a	nd Level of	Servise ar	nalysis o	f Pedestrian Fa	cilities				
	14	Capacity a	nd Level of	⁻ Servise ar	nalysis o	f Bicycle Facilit	ies				
	15	The Secon	d colloqui	um							
				Text	book (s)						
Autho	or/s		Name	of publica	tion, pu	ıblisher	Year	r	Pages (from-to)		
Ljubiša K	luzović		KAPACITE	T I NIVO U	SLUGE		2000)	all		
		SA(ICA, Saobra	acajni ta	IKUITET BEOgrac	2016	5	211		
			INVAT CA		ANUAL,	mansportation	2016	נ	dll		

		Research Board, National Research Council				
		HIGHWAY CAPACITY MANUAL , Transportation	2020	0		-
		Research Board, National Research Council	2020	0		all
) (la da a Tubi)		KAPACITET I NIVO USLUGE DENIVELISANIH	201	<u> </u>		- 11
Viadan Tubic		RASKRSNICA	2010	b		all
		Additional readings				
Author/s		Name of publication, editor	Yea	r	Pag	es (from-to)
		ZBIRKA REŠENIH ZADATAKA I KAPACITETA I				
Vladan Tubić		NIVOA USLUGE DRUMSKIH SAOBRAĆAJNICA,	200	0		all
		Saobraćajni fakultet Beograd				
		HANDBUCH FUR DIE BEMESSUNG VON				
		STRABENKVERKEHRSANLAGE,	200	4		- 11
		Forchungsgesellschaft fur Strassen – und	L		all	
		Verkehrswesen				
		Assesment methods		Poi	ints	Percentage
	The regu	lar attendance of the classes		10		10 %
	Semestr	al work		20		20 %
Evaluation criteria	Colloqui	ums/tests		70		70%
The fina		l exam		70		70 %
Total				100	C	100 %
Web sources				1		J
Applicable from	16.06.20	021. – 175th Session of the Council of the Faculty of	Transpo	rt an	d Traffi	c Engineering

				UNIV Faculty of T Profile:		Costan					
Course title				I cycle		BOAD	I year of stu				
Department		Der	hartme	ent of Road	Traffic an	d Trans	port- Faculty	of Transport	and	Traffic	Engineering
(Code		Jurenne	Cou	urse status		Seme	ster		ECTS	credits
САФ11СЛО)7203	065 0220)	elective VI							5.00
Professor/s		PhD Me	sud Ai	anović							5,00
Associate/s		PhD Me	sud Ai	anović							
	Weel	kly hours	<u> </u>	Individ		ual stu	er semester))	Stude coe	ent workload efficient So	
L		TE		LE	L		TE	LE			So
Х		Y		Z	X*15*	So	Y*15*S₀	Z*15*S₀			
Total teac	her w	orkload (kload (hours, per semester) Total student workload (ho								mester)
X*2	15 + Y	Y*15 + Z*15 = W hours X*15*S ₀ + Y*15*S ₀ + Z*15*S ₀ = T									ours
		Tot	al wor	kload: W+	T=U _{opt} = 90	+ 120	= 210 hours pe	er semester			
		By mast	ering t	his course	the stude	nt will b	e able to:				
Course aims an	d	1. Contr	ol moc	les, kinem	atics, dyna	mics ar	nd stability of o	control			
learning outcor	mes	2. Stabil	ity of t	he vehicle	on a slopi	ng road	in a curve				
		3. Collis	ion the	eory of mo	tor vehicle	S .					
		4. Maint	tenanc	e and over	haul proce	edures					
Prerequisites	quisites /										
Teaching metho	ods	Lectures	s, theo	retical exe	rcises, con	sultatic	ons	<u> </u>			· ·
Course content	Course content1. Novement of venicles with eastic wheels on a nard surface - wheel rolling mechanics2. Vehicle motion resistance, traction-dynamic and braking characteristics3. Control modes, kinematics, dynamics and stability of control4. Vehicle stability on a sloping road in a curve5. Definition, classification and typical constructive solutions of vehicle systems and assemblies6. Safety, economy and environmental problems of vehicles7. I colloquium8. Theory of motor vehicle collisions9. Basics of tribology10. Lubricants, oils, greases11. Technical fluids12. Wear13. Maintenance and overhaul procedures14. Organization of service and repair workshops15. II colloquium							and			
Autho	or/s			Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
Миши	ıћ Б.		.,2	<i>румска во</i> Саобр	о <i>зила са д</i> раћајнифа	<i>инами</i> култет	ком, скрипта, Добој,.	2009	€.		
Јанковић Д., С	Јанковић Д., С. Тодоровић				ретања л	лоторн	них возила,	1990).		
J. Машински факултет						/лтет Б	еоград,				
					Addition	al read	Ings	N-		D	a (fuene ta)
Autho	Jr/S		-	Nam		of not		Yea	r	Page	es (from-to)
Дедов	ић В.		Динамика возила, Саобраћајни факултет Београд , 2004					1.			
				A	ssesment	metho	ds		Poi	nts	Percentage
Evaluation crite	eria	Pre-exa	minatio	on obligati	ons				r		
						Acti	vity during lec	tures-tests	10		10%

	colloquiums	2x20	40%					
	positively evaluated term paper							
	Final exam							
	Final exam – oral examination	50	50					
	Total	100	100%					
Web sources								
Applicable from	16.06.2021. – 175th Session of the Council of the Faculty of Transport and Traffic Engineering							

				UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: The road transport and traffic I cycle III year of study							A1199 07 47 7 7 1	
Course title					_	MANA	GEMENT IN T	RAFFIC				
Department		Dep	partme	nt of Mark	keting and	Manag	ement, Faculty	/ of Econom	omics in Brčko			
	Code			Co ι	urse status		Semester			ECTS credits		
САФ11СДО)72038	65,0220) electoral VI								5,0	
Professor/s		Assist. p	rofess	or Zivko Er	ceg							
Associate/s		Sinisa Bo	OZICKO	IC, MBA						Stude	nt workload	
	Weekl	ly hours			Individ	dual student hours (per semester				COE	efficient S _o	
L	1	TE		LE L TE			TE	LE			So	
2	2		0		60		60	0		1,33		
Total teac	her wo	rkload (hours,	per semes	ter)		Total student	workload (ł	nours	, per se	mester)	
	2.12+	3.12+	0.12 :	Total w	orkload. or) + 120	3 15 1,33 + = 210 h =11	2.12.1'33	+ 0* -	13.1'23	- 120	
		Complet	ting thi	s course st	tudents wi) + 120 Il he ah	= 210 11 = 0 _{opt}					
		1. Learn	the fu	ndamenta	ls of mana	gemen	t as well as the	principles	and d	lefinitio	ns of	
Course aims an	d	manage	ment;			0		hh				
learning outcom	mes	2. Funda	amenta	als of planr	ning							
		3. Leade	ership a	and coordi	nation							
		4. Deleg	ating t	raffic tasks	5							
Prerequisites		No prer	equisit	es								
Teaching meth	ods	Lectures	s, audit	ory exerci	ses, semin	ar work	k, fieldwork					
Course content		2. Orgar 2. Orgar 3. Funda 4. Comn 5. Funda 6. Leade 7. Mana 8. I Collo 9. Conce 10. Proc 11. Infoi 12. Tran 13. New 14. Traff	nization amenta amenta arship a ogemen oquium ept anc ess an rmatio sforma v conce fic mar	n of the tra als of planr tion in the als of tende and coordin t Systems d importan d methods n systems, ation proce pts and ap nagement i m	agement, c affic compa- ning traffic encies of h nation in traffic ce of contu- s of traffic of traffic esses of ma- proaches in the futu	uman r rol control on and anagem to man re	management nent of compar agement	gement nies				
Autho	or/s			Name	of publica	tion, p	ublisher	Yea	r	Pag	es (from-to)	
Vešovi	ć, V.		Tra	ffic Manag Traff	gement, Fa ic Enginee	culty of ring, Be	f Transport and Igrade	199	6.		1-284	
Lončare	vić, R.		Mar	nagement,	Singidunu	m Univ	ersity, Belgrad	e 200	7.		1-417	
Stavrić, B. i	Erceg,	Ž.	В	usiness Sys	stems Man Belgr	iageme ade	nt, Kiz Center	202	0.			
					Addition	al read	ings					
Autho	or/s			Nam	e of public	cation,	editor	Yea	r	Pag	es (from-to)	
				A	ssesment	metho	ds		Points Percentage			
Evaluation crite	eria	Pre-exa	m oblig	gations							1	
						Presen	ce of lectures,	/ exercises	10		10%	

	Colloquium	2x20	40%
	Final exam		
	Final exam (oral / written)	50	50%
	TOTAL	100	100 %
Applicable from	16.06.2021. – 175. session of the Teaching-Scientific Council of the F	aculty of Tra	insport and
Applicable Irolli	Traffic Engineering		

	A CANALER	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							Sofrah	DO 5	
			Profile:	Study prog The road ti	ram: Ti ranspoi	raffic rt and traffic	d		C	AOEOJ	
Course title											
Department		Depa	Department of Motor Vehicles, Operation, Maintenance and Diagnostics of Vehicles								
(Code	Depu	Cou	irse status) opera	Semes	ter		ECTS	credits	
САФ11СДО	7203465,	0220		elective		VI				5.0	
Professor/s	Me	esud Aja	anović	Dvić							
Associate/s	Du	nja Rad	adović Stojčić								
	Weekly h	ours		Individu		dual student hours (per se			Stude coe	nt workload efficient S _o	
L	TE		LE	L		TE	LE			So	
2	2		0	2		2	0			1,5	
Total teach	ner workle	oad (ho	ours, per semes	ter)		Total student v	workload (h	ours	, per se	mester)	
	2*15 + 2*	$15 + 0^{*}$	*15 = W			2*15*1,5	+ 2*15*1,5	+ 0*	15*1,5 h	= 1	
	30+3	0+ U= t		workload	. 60 . 0	0 – 150 h	+5 + 45 + 0 =	= 90	[]		
	Dv	mactor	ing this course	the studer	. 00 + 9	o = 150 []					
Course aims an	d ^{Dy}	ngkno	we methods of	monitorin	a the o	e able lu. peration and m	agintonance	ofv	ohiclos	with the	
learning outcor	nes os	ahlishn	nent of failure (hiagnostics		peration and n	annenance		enicies	, with the	
Prerequisites	Do										
Teaching meth	ods Leo	tures. a	auditory exercis	ses. semina	ar pape	r					
	1.[Defining	g the concept o	of maintena	ance. Pi	ocess approac	h to mainte	enand	ce		
	2.6	Basic w	ays of realization	on of maint	tenance	5					
	3. [Determ	ining the condi	tion of the	vehicle	e - diagnostics					
	4. 9	Set a m	aintenance goa	d							
	5. ۱	/ehicle	performance								
	6. 1	Measur	easurement of performance characteristics								
	7.1	colloq	olloquium								
Course content	8. (Conditio	onditions for realization of maintenance								
	9.1	Plant m	lant maintenance support functions								
	10.	Requir	rements in relat	tion to the	protec	tion of humans	and the er	iviroi	nment		
	11.	Identif	y or maintenan	ce and space	fication	of their roquin	omento				
	12.	Defini	ng requirement	s for sunnl	liers an	d subcontracto	ors				
	14	Improv	ving maintenan	ice							
	15.	II collo	quium	-							
				Textb	ook (s)						
Autho	or/s		Name	of publica	tion, pı	ublisher	Yea	r	Page	es (from-to)	
Ranko Bo	zickovic		Operation	and maint	enance	of vehicles	201	1		1-317	
				Additiona	al readi	ngs					
Autho	or/s		Nam	e of public	cation,	editor	Yea	r	Page	es (from-to)	
Ranko Bo	zickovic	C	Collection of ta	sks from th syste	ne relial ms	oility of technic	al 2009	9		1-135	
			A	ssesment r	method	ls		Poi	nts	Percentage	
	Pre	e-exam	obligations								
Evaluation crite	eria		for e	xample. at	tendan	ce at lectures /	exercises	10		10%	
		for	example. I am p	positively a	issessed	l. paper / proje	ect / essay	20		20%	
				for ex	ample.	case study - gr	roup work	/		/	
					for ex	ample. test / c	olloquium	70		70%	
								•			

	for example. laboratory work / lab. exercises	/	1					
	for example. practical work	/	/					
	Final exam							
	for example. final exam (oral / written)	70	70%					
	IN TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

		UNIV Faculty of		Sola hailifi Quarter						
82		Profile:	The road t	ranspo	rt and traffic					
15 4 5 Y2 30 13	/		I cycle I year of study							
Course title			MOTORS SUS							
Department		Departme	ent of Mot	or Vehicles	s, Opera	tion, Mainten	ance and Dia	agno	stics of Vehicles	
(Code		Course status Semester				ster		ECTS credits	
САФ11СДС	7203965,	0220								
Professor/s	Zor	an Ristikic								
Associate/s		an crennja							Student workload	
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester))	coefficient So	
L	TE		LE	L		TE	LE		So	
3	3		0	3		3	0		1	
Total teach	ner workle	bad (hours,	per semes	ter)		Total student	workload (h	ours	, per semester)	
	3*15 + 3*	15 + 0*15	= 90 Tota	Jworklope		$3^{+}15^{+}1,33$ +	- 3*15*1,33	+0*	15*1,33 = 90	
	By	mastering t	his course		1:90+9	0 = 180 fi				
	Бу 1 т	n learn abo	ut the divi	sion of SU	S engin	e able to.	cteristics an	d hae	sic elements:	
	2.1	o get acqua	ainted with	the princi	iples of	operation of t	wo-stroke a	nd fo	our-stroke SUS	
Course aims an	d eng	zines:				operation of t				
learning outcor	nes 3. t	o analyze t	he basic sy	stems of S	US engi	nes as well as	the process	es in	SUS and other	
	eng	gines;								
	4. a	acquired kn	owledge a	pplied in p	ractice.					
Prerequisites	Do	es not have								
Teaching metho	ods Leo	tures, audi	tory exerci	ses, semin	ar pape	r				
	1. E	Engine defir	nition. Hist	ory of SUS	engine	development				
	2. 9	SUS engine	division							
	3. (Geometric p	netric parameters of the SUS engine. Basic elements, mechanisms and systems of SUS							
	eng	gines								
	4. 6	Principle of	ple of operation of four-stroke and two-stroke SUS engines							
	5.1	rankchaft	ianism	flumbool						
	0.0	Mechanism	for changi	ng the wor	rking m	aterial (Lcolloc	muium)			
Course content	8 6		ngine syste	ms the wor	King III		luiuiii)			
	9.1	Theoretical	cvcles of S	US engines	5					
	10.	Thermal - I	, ohysical pr	operties of	f fuels, i	mixtures and c	ombustion	prod	ucts	
	11.	Actual SUS	engine cy	cles						
	12.	Processes	of changin	g the work	ing sub	stance in SUS e	engines			
	13.	The proces	s of comp	ression, co	mbusti	on and expans	ion in oto ei	ngine	es	
	14.	Compressi	on, combu	stion and	expansi	on process in a	diesel engine	es		
	15.	Indicator a	nd effectiv	e indicato	rs of SU	S engines (II co	olloquium)			
Autho	or/c		Namo	of publics	DOOK (S)	ublishor	Voa	r	Pagas (from to)	
Autho	5/1		Fundamen	tals of SUS	engine	s Faculty of	rea		rages (110111-10)	
Todorovic, T.,	, Antonic 2	Z.	Technical	Sciences N	Novi Sad	d, Novi Sad,	199	7		
Klinai	r, I.	SUS	Sengines, a	auxiliary te	xtbook	, FTN, Novi Sac	d, 2008	8		
				Addition	al read	ings				
Autho	or/s		Nam	e of publi	cation,	editor	Yea	r	Pages (from-to)	
Todorovic, T.,	, Antonic 2	Z. Dobo	s of SUS e oj,	ngines, Fac	ulty of	Transportatior	n 2009			
Tomic, M., P	etrovic, S	. Inter	nal combu	stion engi	nes, Fac	ulty of	2000			

		Mechanical Engineering, Belgrade								
		Assesment methods	Poi	ints	Percentage					
	Pre-exa	Pre-exam obligations								
		attendance at lectures / exe	ercises	10		10%				
		I am positively assessed. paper / project ,	/ essay	10		10%				
Evaluation criteria	case study - group work									
	test / colloquium 2x10 20									
	Final ex	Final exam								
			oral	60		60%				
	IN TOTA	TOTAL 100%								
Web sources										
Applicable from	16.06.20	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

			STATIN CONT								
	JEBY +		,	Study progra	m: Traffic	0					
			Profile	e: The road trai	nsport and traffic			AOEO1			
Course title		Chain of Tur		IK/							
Department		Chair of Tra	Insportatio	on Engineering	- Faculty of Trans	portation Do					
C	Code		Course status Semester					ECTS credits			
САФ11СД0	710437	5,5220	Requ	uired (road and	city traffic)	VII		5,5			
Professor/s		Dr Tihomir	Djuric, As	sociate Professo	or						
Associate/s		Dr Tihomir	Djuric, As	sociate Professo	or		-				
	Weekly	hours		Individual s	tudent hours (pe	er semester)	S	tudent workload coefficient S _o			
L		TE	LE	L	TE	LE		So			
2		2	0	2*15*0,2=6	2*15*0,2=6	0*15*0.2=	0	0,2			
Total tea	cher wo	orkload (hou	rs, per sen	hours,	per semester)						
2'	*15 + 2	*15 + 0*15 =	+ 0*15 =60 hours 2*15*0.2 + 2*15*0.2 + 0*15*0.2 = 1								
		I otal wo	Total workload: $W+T=U_{opt}=60 + 12 = 72$ hours per semester								
		By masteri	ng this cou and what t	raffic athics is	t will be able to: traffic culture, tra	offic nsychol	ວດນ				
		2. to define	e the basic	s of preschool e	education progra	ms for childr	en age	ed three to seven			
	ام	years;		·	1 0		U				
Learning outcor	nes mes	3. to explai	n the safe	, ethical and ris	ky behavior of ro	ad users;					
icuming outcol	ines	4. to explai	n what is	prevention and	models of impro	ving traffic s	afety;				
		5. to define	e models, i	measures and p	rograms for worl	king with hig	h-risk	drivers;			
		7 The cond	n the mut	onsequences of	traffic accidents	ticipants;					
Prerequisites		no conditio	ons	onsequences of		•					
Teaching metho	ods	ex-chair lee	ctures. dis	cussions. focus	groups. individua	l and group	work				
		1. Ethics, T	raffic Ethio	cs, Basic Ethical	Principles for Tra	offic Participa	ants.				
		2. Traffic c	ulture, Eth	ical culture and	traffic safety cul	ture and Mo	dels.				
		3. Traffic P	sychology,	Emotions and	Motivations, Pers	sonality Psyc	hology	<i>.</i>			
		4. Aims, ta	sks and co	ntent of pre-scl	nool education, P	rogram prin	ciples.				
		5. Educatio	on on traffi	c safety in prim	ary school, What	are the goa	ls of sa	fety education.			
		6 Children	as road u	sers Suffering o	of children and vo	ung neonle	under	18 in SN in RS			
		and in EU.		sers, surreinig e	i children ana ye		unaci				
		7. Traffic Sa	afety, Risk	y Traffic, High R	isk Drivers.						
Course content	•	8. Interacti	ons betwe	en traffic partio	cipants, Forms of	aggressive b	pehavio	or.			
	•	9. The cond	cept and b	ehavior of the o	driver in the even	t of a traffic	accide	nt, Errors of the			
		ariver in th	e detectio	n phase infor.	ving traffic cafety						
		10. Freven	on as a fact	tor in traffic saf	ety. Frgonomics a	'. as a preventi	ve me	asure.			
		12. Metho	ds and pro	cedures for ide	ntifying and hand	ling high-ris	k drive	ers.			
		13. Definin	g and app	lying models fo	r the identificatio	on and classif	ficatior	n of high-risk			
		drivers.									
		14. Descrip	tion and c	ontent of mode	els, methods and	objectives fo	or high	-risk driver			
		eaucation.	covered at	the High Dick r)river Rehabilitat	ion Seminar					
		15. Topics		Texthook	(s)	ion Jennidi	•				
Aut	hor (s)		Na	me of the nub	ication, nublishe	r N	(ear	Pages (from-to)			
1. Diuric. T. ar	nd Pop	ović Di	Traffic Fo	ducation. Facult	v of Transport. D	oboi 🤈	2021	1-226			
2. Djuric, T., Po	opović l	Dj and	Traffic Ed	ducation, Facult	y of Transport, D	oboj 2	2016	1-338			

Boskovic M.					
		Additional readings			
Author (s)		Name of the publication, publisher	Year	Pages (from-to)	
Law on Basics of Road Traff	ic Safety	r in BiH, (BiH Official Gazette, No. 6/06, 75/06,	2018		
44/07, 84/09, 48/10, 18/1		33/17, 3/10, and			
101/11, 32/13 -US, 55/14).	e of the Republika Stpska, No. 41/09, 53/10,	2014		
					Р
					er
					e
		Assesment methods		Points	nt
					а
					g
Dre	. ovam (e	
		- tests		1	
				10	0
Evaluation criteria		colloq	luiums	15	1
		nocitively evaluated cominar	nanor		5
		positively evaluated seminar	рарег	20	0
Fin	al exam				-
		written part of the	e exam	35	3
		final aver			5
		final exam	1 - oral	20	0
					1
IN	TOTAL			100	0
					0
Web sources					/0
Applicable from 16.	.06.2021	- 175 Session of the Councile, Faculty of Transport	and Traf	fic engineerin	g

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						Contraine ogning		
			Profile:	The road tro	anspo	rt and traffic			AOEOJ		
4583 40			I cycle IV year of study								
Course title			IRAFFIC TERMINALS								
Department		I		Departn	nent f	or road traffic	and transpo	nt			
C	ode		Co	urse status		Seme	ster		ECTS credits		
САФ11СД0	7104177,	0330	СС	ompulsory		VII			7,00		
Professor/s	Ph	D Bojan MA	RIĆ	~ /							
Associate/s	MS	c Dunja RA	DOVIĆ STC	JČIĆ							
	Weekly h	ours	Individual student hours (per se		er semester))	Student workload coefficient So				
L	TE		LE	L		TE	LE		So		
X	Y		Z	X*15*S	b	Y*15*S _o	Z*15*S _o				
Total teach	er worklo	bad (hours,	per semes	ster)		Total student	workload (h	ours	, per semester)		
X*1	.5 + Y*15	+ Z*15 = V	/ hours	A/. T 11		X*15*S ₀ +	Y*15*S ₀ + Z	*15*	$S_0 = 1$ hours		
	٨ft	I Otal V	Orkioad: V	V+I=U _{opt} =	+ =	nours per s	emester				
		er uns cour	se the stud	ments of ter	minal). Users by cater	ories				
	2 0	ntimizes th	ne concent	ual and tech	nnlog	ical solution of	f the termin	al de	phending on the		
	tec	hnological	process the	at takes plac	e in th	ne terminal.		ui uc	pending on the		
Course aims and	d 3. c	defines the	criteria for	the selection	on of t	he location of	the termina	l dep	pending on the		
learning outcom	nes con	dition of th	of the city transport system,								
	4. c	quantifies t	ne require	ments for pa	arking	in a certain zo	ne or city de	epen	ding on the degree		
	of a	attractivene	ess,								
	5. c	lefines the	strategy of	f parking ma	nager	nent in a city,	populated p	lace	or city zone.		
Prerequisites	nor	ne									
Teaching metho	ods lect	tures, theo	retical exe	rcises, consu	Itatio	ns	_		-		
	1.5	Significance	and role c	of traffic terr	ninals	for accommo	dation, stora	ige, s	supply, care,		
	tec	hnical mair	annamenance and repairs onary traffic, parking problems								
	2.3	lanning an	ing and estimate of parking needs								
	3. F	Garage nark	re parking - types, basic types and characteristics of garages								
	5. 5	Service stat	ce stations and motor depots - types and characteristics								
	6.0	Criteria for	ia for arrangement of objects								
Course content	7.1	colloquium	า								
Course content	8. E	Bus stations	- planning	g, estimate a	ind de	sign					
	9. N	Mathematio	al models	for passeng	er nur	nber calculatio	on				
	10.	Organizati	on of rece	otion and de	epartu	re of buses					
	11.	Guidance s	systems				-l- 4				
	12.	Stations to	r supply, t	ransport and	d stora	ige of liquid fu	leis - types a	na p	asic types		
	14	Truck stati	ons and m	otols	lleas						
	15. Il colloquium										
Textbook (s)											
Autho	r/s		Name	of publicati	ion, pı	ublisher	Yea	r	Pages (from-to)		
Marko Subotić, I Bojan Marić	Edis Softi	ć, Saob	raćajni ter	minali			2017	7			
Svetozar Kostić,	Branko	Drun	nski saobra	aćaini termir	nali FT	N Novi Sad	2013	2	1-21/		
Davidović, Zorar	Diuli			ian, El		2013	,	⊥-∠⊥ *			
Nada Milosavlje	vić	Park	ranje, Sao	braćajni fakı	ultet B	eograd	2010	C	1-165		
Nikola Putnik		Auto	baze i auto	ostanice			2007	7	2-340		
Nada Milosavlje	vić	Elem drun	enti za teh Iskom saol	inološko pro braćaju, Sao	ojektov braćaj	vanje objekata ni fakultet	u 2007	7	1-127		

		Beograd					
		Additional readings					
Author/s		Name of publication, editor	Yea	r	Pages (from-to)		
		Assesment methods	Points	s Percentage			
	Pre-exa	mination obligations					
		presence in lectures/ theoretical ex	10	0 10%			
Evaluation criteria		positively evaluated term	10	0 10%			
Evaluation criteria			30	30%			
			30	30%			
	Final exa	am (oral examination)	20	20%			
	TOTAL			10	0 100%		
Web sources							
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Ti	raffic er	ngineering		

STOT Y MCTOWIO			UNIV		EAST S		_		2005		
-18.		_	Faculty of	Fransport a		mc Engineerin	<u>g</u>		Solution in the solution of th		
82.			Profile	The road t	ransno	rujjic rt and traffic					
A SUS - SUS	III -			ine iouu i	lanspo	Wyear of st	udv		LOZOP		
Course title	•		TCYCIE		FVΔI		AFFIC				
Department		Depart	epartment for Transport Engineering - Faculty of Transport and Traffic Engineering								
(Code	Depuir	Cou	urse status		Seme	ster		ECTS credits		
САф11СЛО	17104276	0220		mnulsory		VII			6.00		
Professor/s	Ph	,0220 D Marko Su	hotić Traf	fic Enginee	r	VII			0,00		
Associate/s	M	Sc Dunia Ra	dović Stoič	ić Traffic F	nginee	r					
		ie zanja na							Student workload		
	Weeklyh	nours	Individual student hours (per sen		er semester)		coefficient S _o				
L	TE		LE L TE		LE		So				
2	2		0	2*15*2	=60	2*15*2=60	0*15*2=0	C	2		
Total teach	ner workl	oad (hours,	per semes	ter)		Total student	workload (h	ours, p	er semester)		
	2*15 + 2*	+ 2*15 + 0*15 = 60 2*15*2 + 2*15*2 + 0*15*2 = T									
	Total workload: $W+T=U_{opt}=60 + 120 = 180$ hours per semester										
	1a	cquisition o	ot essential	Knowledg	e about	t basic indicato	ors and crite	ria of e	valuation in traffic		
	2.1	training stu	uents to im	ipiement t	ne tuno	cional, enviror	imental, inv	estmer	it and economic		
Course aims an	d eva	aluation	tion of mu	ulti critoria	ovalua	tion					
learning outcor	nes	inplemente studopte wi	ll acquire t	ho basis kr	evalua	tion To for onginool	ring applicat	ion of	mothods and		
	4. : pro	scudents wi	nts will acquire the basic knowledge for engineering application of methods and res in traffic evaluation on rural road network								
	5	independer	t creation	of term na	nor						
Prerequisites		ne		orternipa	per						
Teaching metho	nds lec	tures theo	retical exer	rcises con	sultatio	ns					
		1. Obied	tives, posi	tion, funct	ion and	tasks of evalu	ation in traf	fic			
		2. Funct	ional evalu	ation of ro	bad sec	tions					
		3. Functional evaluation of road sections									
		 Functional evaluation of intersections and road objects 									
		5. Funct	ional evalu	uation of ir	tersect	ions and road	objects				
		6. Envir	Environmental evaluation								
		7. CBA a	CBA and CEA analysis (I test)								
Course content		8. Cost	Cost models								
		9. Cost	Cost models								
		10. Econo	Economic evaluation								
		11. Econo	1. Economic evaluation								
		12. Proce	dures for a	analysis of	indicat	ors on which is	based econ	iomic e	valuation		
		13. Sensi	tivity test								
		14. Inves	tment eval	uation	++ \						
		15. Multi	-criteria ev		n test)	1					
Autho	nr/s		Name	of publica	tion n	ublisher	Yea	r	Pages (from-to)		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Vred	novanie		avlianiu	razvoiem	i	•			
Kuzović Li.:		eksp	loataciiom	putne mre	eže. Sao	obraćaini fakul	tet 1994	I.	-		
·····		Beog	rad	1		,					
		Utvr	đivanje po	otreba i d	opravda	anosti izdvaja	nja				
Kuzović Li s		tranz	itnog sa	obraćaja	a sa gradskih arterija 1007						
KUZOVIC LJ.:	Kuzović Lj.:			bilaznica,	Saob	raćajni fakul ^a	tet		-		
		Beog	rad								
Transport Innov Deployment for	ation Europe	Impa	ict Assessn	nent Handl	book		2013	2013			
			Α	ssesment	metho	ls		Point	Points Percentage		
Evaluation crite	eria Pre	e-examinati	on obligati	ons							

	presence in lectures/ theoretical exercises	10	10 %							
	positively evaluated term paper	20	20 %							
	test 1	20	20 %							
	test 2	20	20 %							
	Students who pass all tests are released of written part, final exam									
	Final exam									
	oral examination	30	30 %							
	TOTAL	100	100 %							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

			F	UNIV	ERSITY OF	EAST	SARAJEVO	r		STAT	AINE CARL
			<u> </u>	dealey of	Study prod	aram: 1	Traffic)		a a	
82.	/			Profile:	The road t	ranspo	ort and traffic			C	
4500 40 1.50			I cycle IV year of study								
Course title					ORGA	NIZATI	ION OF TRAFFIC	COMPANI	ES		
Department		Dep	artme	nt for Trar	nsport Eng	ineerir	ng – Faculty of T	raffic Engin	eerir	ig Dobo	oj
Coc	le			Cou	irse status	5	Semes	ter		ECTS	6 credits
САФ11СД071	04575,	5220		m	andatory		VII			(5,00
Professor/s	PhD) Perio	ca Goj	ković, full	professor						
Associate/s	San	ja SIN	ЛІĆ, se	nior assist	ant						
We	eekly h	ours			Individual student hours (per se		r semester))	Stude coe	ent workload efficient S _o	
L	TE			LE	L		TE	LE			So
3	2			0	3*15*1,4	4=63	2*15*1,4=42	0*15*1,4	=0		1,4
Total teacher	worklo	oad (h	ours,	per semes	ter)		Total student v	vorkload (h	ours	, per se	mester)
3*1	15 + 2*:	$\frac{15+0}{7-1}$)*15 =	: 75	F 11 - 7F		3*15*1,4 +	2*15*1,4+	0*1	5*1,4 =	105
	Dv	lota	al WOrk		I=U _{opt} = 75	+105	b = 180 nours per	semester			
	1. le	y mastering this course, students will be able to: . learn the basic concepts of organization, as well as types and organizational models of									
	ent	erpris	ses;								
Course aims and	2. v	vill be	able t	o analyze	the organ	ization	of large busines	ss systems,	busi	ness an	d
learning outcomes	s dev	elopn	nent p	olicy and	developm	ent fac	ctors;				
	3. 1	ndepe	endent	ly organiz	e and lead	l a mee	eting according t	o defined r	ules;		
	4. a	cquir	ed kno	owledge in	practice t	to appl	ly and establish t	neir own c	ompa	any as v	vell as to give
Proroquisitos	Nor			othersho							
Teaching methods	lect	ures.	audito	orv and co	mputation	nal exe	rcises, consultat	ions			
Teaching methods		1. Tł	ne con	cept and o	levelopme	ent of t	the organization	10115			
		2. Tv	vpes o	f organiza	tional stru	cture					
		, 3. O	rganiz	ational mo	odels of th	e com	pany				
		4.0	rganiz	ing large b	usiness sy	stems					
		5.0	rganiz	ational mo	odels of tra	anspor	t companies				
		6. Bı	usines	s and deve	elopment p	policy					
		7. Cł	haract	eristic bus	iness facto	ors (I co	olloquium)				
Course content		8. Ba	asic m	ethods an	d techniqu	les for	optimization				
		9.0	rganiz Organi	ational cu	iture Susiness fi	inction	26				
		10. C	Rusine	ss informa	ation syste	ms	15				
		12.0	Organi	zation cor	ntrol. Orga	nizing	a meeting				
		13. (Organi	zation and	d manager	nent o	f investments				
		14. (Organi	zation des	sign. Orgar	nizatio	nal transformati	on of the co	ompa	iny	
		15. I	I collo	quium							
					Text	book (s	s)				
Author/s	5			Name	of publica	ation, p	publisher	Yea	r	Page	es (from-to)
Vešović, B. V., Bojović, J. N., Or				inization c	of transpor	rt comp	panies, Faculty o	f 2007	7.		
Knezevic, Lj	. IN.		Ira	ansport an		nginee	ering, Belgrade,				
Author/				Nam	Addition	cation	editor	Vac	r	Dage	es (from-to)
Aution				Indii		cation	, cultor	rea		rag	
				A	ssesment	metho	ods		Poi	nts	Percentage
Evaluation criteria	Pre	exam	inatio	n obligatic	ons				_		
							Presence durin	g lectures		10	10 %

	Colloquium 1	10	10 %
	Colloquium 2	40	40 %
	passed colloquia (theory)	20	20 %
	Final examination		
	Oral examination	10	10 %
	Total	100	100 %
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	raffic engine	ering

S Y MCTOHINO	T NOT OFFICE						2005 100 5				
-18.			Faculty	of Transport	and Tra	ffic Engineering	5		Josef And		
			Drof	Study prog	iram: I	raffic rt and traffic					
LA CL CYCL											
Course title											
Department											
	Code			Course status	:	Semes	ter		ECTS credits		
САФ11СДО	0/1341/6	,0230	ana Madan								
Professor/s	Ph		era Wedar	46							
Associate/s		Naue	iika bjelosev						Student workload		
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semester)		coefficient So		
L	TE		LE	L		TE	LE		So		
Х	Y		Z	X*15*	So	Y*15*S₀	Z*15*S₀				
Total teach	ner workl	oad (h	nours, per se	mester)		Total student v	vorkload (h	ours,	, per semester)		
X*1	L5 + Y*15	*15 + Z*15 = W hours X*15*S ₀ + Y*15*S ₀ + Z*15*S ₀ = T hours							S₀ = T hours		
	Total workload: W+T=U _{opt} = + = hours per semester										
Each student will be able to:											
		1. ว	dictinguich		of road	sie of road freig	s and dofin	ι oth	a conditions for their		
Course aims an	d	Ζ.	execution		UTTUAL	a meight service	s and denn	etne			
learning outcor	nes	3.	describe the	e technology	of a tr	ansport proces	s. define t	he c	haracteristics of the		
			vehicles and the conditions for the enactment of specific transportation demands								
		4.	learn the ba	sic indicators a	and per	formance meas	sures of an v	vehic	le fleet (KPI)		
Prerequisites											
Teaching metho	ods										
		1. Road freight transport: basic concepts and characteristics									
		2. Access to the road haulage market and to the occupation of road transport operator									
		3. Basic regulatory framework									
		4.	Road trans	port services	types	and character	istics', and	pre	conditions for their		
		5	Operation Road freight transport market								
		5. 6	. Koad freight transport market Transport demand characteristics								
		7.	Transport demand characteristics The basic processes and subprocesses in the freight transport services								
Course content		8.	Main activities of transport services execution processes								
		9.	I colloquium								
		10.	Essentials fo	or some types o	of servi	ces					
		11.	Vehicle fleet	ts' key perform	nance ir	ndicators					
		12.	Tone-km an	d productivity							
		13.	Performance	e analysis and	benchr	narking	oin on alianti				
		14. 15	Defining crit	systems	nable ti	ransport and th	eir applicati	ion ir	i the enterprise		
		15. 16		n and test							
		10.	in conoquian	Text	book (s						
Autho	or/s		Na	ame of publica	tion, p	ublisher	Year	•	Pages (from-to)		
			Optimizacij	a prevoznog p	rocesa	u					
M. Marković			automobils	kom transport	u, Univ	erzitet u	2003		-		
			Beogradu, S	Saobraćajni fal	kultet (i	n Serbian)					
		Ī	Modeliranj	e transportnih	kapaci	teta teretnog					
I. Jovanović			autotransp	orta, Univerzit	et u Be	ogradu,	2005		-		
			Saobraćajni	i takultet (in Se	erbian)						
D. Lowe			The Transport	ort Manager's	& Oper	rator's handboo	²⁰⁰⁶ 2006	j.	-		
			2006, 36th	edition, Kogan	Page,	London, UK					
				Addition	al read	ings					

Author/s		Name of publication, editor	Yea	r	Pages (from-to)	
A. Manojlović, O. Me	edar	Zbirka zadataka iz tehnologije transporta robe, Univerzitet u Beogradu, Saobraćajni fakultet (in Serbian)	2018.		-	
		Assesment methods		Poi	nts	Percentage
Evaluation criteria						
Web sources						
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	affic	engine	ering

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering					Set MAINE Odara				
			Profile:	Study program: The road transp	Traffic ort and traffic						
15 0L 6722 21			I cycle IV year of study								
Course title			TRAFFIC ACCIDENTS INVESTIGATION								
Department			Department for road traffic and transport								
	Code		Course status Semest			ter		ECTS credits			
САФ11СДО)7104885,	0311	CC	ompulsory	VII			5,00			
Professor/s	Phi) Bojan MA	RIC								
Associate/s	Phi) Bojan MA	n MARIC								
	Weekly h	ours		Individual st	udent hours (pe	r semester))	coefficient So			
L	TE		LE	L	TE	LE		So			
X	Y		Z	X*15*S₀	Y*15*S₀	Z*15*S₀					
Total teach	her worklo	bad (hours,	per semes	ster)	Total student v	vorkload (h	ours	, per semester)			
X^^	15 + Y*15	+ Z^15 = VV	hours	A/1 T 11	X*15*S ₀ +	Y*15*S₀ + Z*	15°S	_o = 1 hours			
	A 64	I otal v	vorkload: V	V+I=U _{opt} = +	= nours per se	emester					
		er this cour	se the stud	the phonomone	to:	v of traffic a	accid	onto			
	2 +	o define th	e concent	and theories of	raffic accidents	as well as n	node	als of traffic safety:			
Course aims an	d 3 t	o explain t	he monitor	ring of traffic acc	idents:		nouc	ers of traffic safety,			
learning outcor	nes 4. t	o define th	e concept	and significance	of traces of traff	ic accidents	s:				
	5. t	o define th	ne the elements of the investigation documentation and their specifics:								
	6. t	o find, secu	ure and ma	ork traces of traf	ic accidents;			,			
	7.ι	inderstand	the invest	igation and anal	sis of traffic acc	idents.					
Prerequisites	nor	ne									
Teaching metho	ods lect	tures, theo	retical exe	rcises, consultati	ons, individual a	nd group w	ork				
	1.1	he concep	t and signi	ficance of traffic	accident investi	gation (TAI)	. Acc	cident Theories and			
	N	Aodel of tra	affic safety	_							
	2. L	egal basis f	ai basis for performing TAL Specifics of the TAL in relation to other investigations thous of fixing the place of a traffic accident (TA)								
	3.1	viethods of	extnods of fixing the place of a traffic accident (IA)								
	4. I	ciements o	ments of the investigation documentation. Technical principles for the preparation of tigation documentation								
	5 6	stigation documentation ractical actions in the investigation of traffic accidents									
	6.6	lements of	traffic tra	sology The cond	ent and significa	, nce of trace	-s of	a traffic accident			
	7.0	Classificatio	n of traces	s of a traffic accid	lent.						
Course content	8. 9	pecific trad	es of TA (1	Traces of vehicle	movement, brak	king traces,	vehi	cle damage, traces			
	c	n light bull	os, tire trad	cks, tachograph i	ecord, injuries o	f participan	ts SN	N).			
	9. F	Processing	of traces o	f traffic accident	s. Finding, Securi	ng and Mar	rking	Traces of TA.			
	10.	Photograp	hing a traf	fic accident.							
	11.	Temporal-	spatial ana	lysis of the proc	ess of the accide	nt the second data					
	12.	Multimodi	etches and	situational plan	s of the scene of	the accider	nt				
	15.	Methods	a investiga of proparin	g reports on trai	fic accident expe	ortico					
	15.	Applicatio	n of compl	iters in analyzes	and expertise of	traffic acci	dent	s			
		- application		Textbook (s)						
Autho	or/s		Name	of publication,	publisher	Yea	r	Pages (from-to)			
		Uviđ	Uviđaj saobraćajnih nezgoda - izrada skica i								
Krsto Lipovac		situa	situacionih planova, Viša škola unutrašnjih 1994								
		poslo	poslova, Beograd								
		Uviđ	Uviđaj saobraćajnih nezgoda - elementi								
Krsto Lipovac		saob	saobraćajne trasologije, Viša škola unutrašnjih 2000								
		posle	ova, Beogra	ad			0				
Krsto Lipovac		Bezb	ednost sad	o <i>braćaja,</i> Službe	ni list SRJ, Beogra	ad 2008	8				

Additional readings											
Author/s		Name of publication, editor Year			Pag	es (from-to)					
		Assesment methods		Poi	nts	Percentage					
	Pre-exa	nination obligations									
		presence in lectures/ theoretical ex	10		10%						
Free land to a sold out o		positively evaluated term		10	10%						
Evaluation criteria				30	30%						
				30	30%						
	Final exa	am (oral examination)			20	20%					
	TOTAL			100	100%						
Web sources											
Applicable from	16.06.20	021. – 175.сједница Наставно-научног вијећа Саоб	раћајно	г фа	култета	a					

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic				Southallin Coarty				
2				Profile: The road	transport and tra	affic			AOEOJ		
	30	_	l cy	cle IV year of study							
Course title					TRAFFIC S	AFETY					
Department		Cha	ir of Trar	nsportation Engi	neering - Faculty o	of Tran	sportation	Doboj			
	Code		Course status Semeste				er	ECTS credits			
САФ11СД	07104786	5,0330	0 Required (road and city traffic) VIII 6,0								
Professor/s		Dr Tihom	ir Djuric,	, Associate Profe	essor						
Associate/s		Dr Tihom	ir Djuric,	Associate Profe	essor						
	Weekly h	ours		Individual	student hours (pe	er seme	ester)	Stude coe	nt workload :fficient S₀		
L	TE		LE	L	TE		LE		So		
3	3	0 3*15*0,2=9 3*15*0,2=9 0*15*0.2=0 0,2									
Total te	acher woi 3*15 + 3*	rkload (ho 15 + 0*15	oad (hours, per semester)Total student workload (hours, per semester) $5 + 0*15 = 90$ hours $3*15*0.2 + 3*15*0.2 + 0*15*0.2 = 18$ hours								
		Tota	Total workload: W+T=U _{opt} = 90 + 18 = 108 hours per semester								
By mastering this course the student will be able to:1. understands the situation and tendencies in traffic safety in the region and in the world,2. Explain the concept and elements of the traffic safety management process,3. Explain traffic safety factors,4. Measures traffic safety performance indicators,5. Understands the incident and analysis of traffic accidents.								n the world,			
Prerequisites		no condi	tions								
Teaching met	hods	ex-chair	ectures,	workshops, disc	ussions, focus gro	ups, in	dividual an	id group w	ork		
Course conte	nt	1. Introd 2. Scienti 3. Traffic 4. Traffic 5. Protec 6. Traffic 7. Measu 8. Traffic 9. Traffic 10. Traffic 11. Traffic 12. Traffic 13. Mode 14. Spee 15. Datal	action, se fic discip safety si safety fa tive syste safety re rement i safety m c safety m c safet	ubject and meth line basics traffi tuation and tend actors em and responsi egulations in traffic safety indicators nanagement measures nts, Traffic accid cal analysis of tra- edures for impro- importance for t	od of study. Traffi c safety dencies ibilities in traffic sa ent investigation affic accidents wing road safety traffic safety	c Safet	y Methods				
				Texti	оок (s)				Pages (from-		
Aut	hor/s		Ν	lame of publicat	tion, publisher		Ye	ear	to)		
 Lipovac K. and Vujan 	., Jovanovi nić M.	ic D. Fu Ac	ndament ademy, I	tals of Traffic Sal Belgrade	fety,, Criminal Poli	ce	20	014.	1-388		
2. Lipovac K.		Tra	affic Safe	ty, (Official Gaze	ette SRJ), Belgrade		20	008.	1-398		
3. Lipovac K.		Tra Ba	affic Safe nja Luka	ty, Higher Schoo	ol of Internal Affair	s,	20	07.	1-387		

	Additional readings				
Author/s	Author/s	Aut	hor/s		Author/s
Law on Basics of Road 1 44/07, 84/09, 48/10,	ffic Safety in BiH, (BiH Official Gazette, No. 6/06, /13, 8/17, 89/17 and 9/18)	75/06, 2	2018.		
Law on Road Safety, (O 101/11, 32/13 -US, 55	014.				
	Assesment methods		Po int s	Per	centage
	re-exam obligations				
	activity d	10		10	
Fuchantian aritaria		15		15	
Evaluation criteria	positive evaluation of t	20		20	
	inal exam				
	written	part of the exam	35		35
		final exam - oral	20		20
	N TOTAL		10 0		100 %
Web sources					
Applicable from	6.06.2021 - 175 Session of the Councile, Faculty of	of Transport and T	raffic e	engin	eering

UNIVERSITY OF EAST SARAJEVO									2005 1118 04			
-18			Fac	ulty	of Transport and	Traffic	Engineering		Jase Andrew Andrew			
		_	-		Study program	: Traff	IC					
912 V3 4 SY 2		-	P	rofil	e: The road trans	port a	na traffic		AOEOJ			
Course title				10	трал				in the second second second			
Department					Chair	of Tra	nsport Engine	Pering				
Department	Carla				Course status	orna	Comparing					
	Code				Course status		Semeste	er	ECTS credits			
САФ110	СД07104	085,0	211		obligatory		VII		5,5			
Professor/s		Prot	. Valentina	a Mii	rović, Ph.D. Eng. t	rattic						
Associate/s		Prof	. Valentina		rovic, Ph.D. Eng. t I	rattic			Ctudent workload			
Weekly hours Individual student ho						ours (per ser	nester)	coefficient So				
L	TE		LE		L	TE	LE	So				
					2*15*1 75=52	1*15	*1 75=26 2	1*15*1	,			
2	1		1		5	1 13	5	75=26,2	2 1,75			
						L		5				
Total te	acher w	orkloa	ad (hours,	per	semester)	Tot	al student wo	orkload (hours, per semester)			
	2*15 + 1	*15 +	+ 1*15 = 60 hours 2*15*1,75 + 1*15*1,75 + 1*15*1,75 = 105 hours									
		Tota	al workload: W + T = U _{opt} = 60 + 105 = 165 hours per semester									
Course sime	مسط	1. ac	uire basic	pro	cedures in the pre	eparati	on of study a	nd plann	ing documents			
Loarning out	and	2.00	nducting	ire rc								
learning out	comes	3. cc 4. ln	dependen	anai t ass	signment annual t	ask			3			
Prerequisite	s	No s	pecial con	ditic	ons	0.51						
Teaching me	thods	Lect	ures, deba	ites.	annual assignmer	nt						
		1. St	ubiect intro	oduc	tion - planning pr	ocess.	history. syste	em appro	ach, general			
		proc	edure			,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, 0			
		2. In	formation	bas	e - research areas	, meth	ods and tech	niques o	f research			
		3. G	enerating	trips	- factors, analysis	and ti	ravel forecast	t .				
		4. Sp	atial distr	ibuti	on of travel - fact	ors and	d models					
		5. Vi	sual distril	butio	on of travel							
		6. N	etwork loa	d								
Course conte	ent	7. Ro	oad and st	reet	network - catego	rizatio	n, types (I col	lloquium)				
course conta		8. Tr	ansport w	ork	and time							
		9. Pi	ublic passe	nge	r transport - role,	system	15					
		10. E	Basic explo	oitati	on characteristics	s, criter	ia for choosi	ng the ty	pe of transport			
			Viaintenan	ice q	uality							
		12.1 12 F	viethou se	ofv	on ariant solutions							
		14		f tra	ffic and other sna	tial nla	nning areas					
		15 (oncluding	r tru 7 cor	siderations (II col	loquiu	m)					
				,	Textbook	(s)	,					
Auth	or/s		Name of publication, publisher Year Pages (fro									
Deriáli	otrouté	n .		пл	АНИРАЊЕ САОБ	РАЋА	A					
Doric V., P		U.,	Анализа транспортних захтева, Саобраћајни						-			
	факултет, Београд											
Vračarević R., Mirović V: Основе планирања саобраћаја, писана						, писана	2014.	-				
	,	-	<u>п</u>	ред	авања, Нови Сад	ц - скрі	ипта					
N.41	uiá V.		збирк	a 3a	датака из модел	а у пл	анирању	2015				
Miro		саобраћаја, Факултет техничких наука, Нови					2015.	-				
			Basics o	γfΤ	сад raffic Planning	Writte	n lectures					
Jadranka Jov	ić:		Belgrade	2	ianne i ianning,			2012.				
				-					1			

Jović J., Ivanović I.:	Collection of tasks from traffic planning, Faculty	2011.		
,	of Traffic, Belgrade			
ladranka lović:	Traffic Planning in Towns - Practicum, Faculty of	1006		
	Traffic, Belgrade	1990.		
Cambridge Systematic,		1000		
Inc.:	Travel Survey Manual, US DOT and US EPA	1996.		
	Traffic Demand Modelling, Katholieke	1000		
L.H. Immers, J.E. Stada.:	Universiteit Leuven	1998.		
GTZ.:	Land use planning and urban transport	2004.		
	Assesment methods	1	Points	Percentage
Pre-	exam obligations			
	presence in lectures / exer	cises 2	10	10 %
	Positively evaluated annual assignr	nent 2	20	20 %
Evaluation criteria				
Fina	exam			
	tten)	70	70 %	
IN T	DTAL		100	100 %
Web sources				•
Applicable from 16.0	6 2021 - 175 Session of the Councile Faculty of Tra	nsnort a	nd Traffic	engineering

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2005	
				Study program	n: 1	Traffic				
15 45 TO 30 15	Ĩ,		Profile:	- ~	AOEOJ					
Course title			EXPERTISE OF TRAFFIC ACCIDENTS							
Department		Chair c	of Transportat	ion Engineerin	g					
	Code	•	Coι	Course status Semester			ester	ECT	S credits	
САФ11СДО)7219385	6,0220	E	Electoral II						
Professor/s		Dr. Tiho	omir Djuric, As	sociate Profess	or					
Associate/s		Dr. Tiho	omir Djuric, As	sociate Profess	or			Chudou		
	hours		Individual st	tud	lent hours (pe	r semester) studer coef	ficient So		
L	TE		LE	L		TE	LE		So	
3	1		1	3*15*0,2=9		1*15*0,2=3	1*15*0.2 3	!=	0,2	
Total te	acher wo 8*15 + 1*	orkload (l 15 + 1*1	hours, per ser 15 =75 hours	nester)		Total student 3*15*0.2 + 2	workload 1*15*0.2+	(hours, per s 1*15*0.2= 1	emester) 15 hours	
		Total	Total workload: W+T=U _{opt} = 75 + 15 = 90 hours per semester							
Course aims a	ad	By mast 1. Unde	tering this cou erstands the co	rse the studen oncept and imp	t w oor	vill be able to: tance of traffic	c accident e	expertise		
learning outco	mes	2. corre	ctly interprets	the traffic acc	ide	ent traces	<i>.</i>	с , ,		
Ū		3. the a	pplication of t	he scientific m ccident analvsi	etn s	lod in the proc	ess of traf	fic accident	analysis	
Prerequisites		student	may take the	exam if he or	she	has passed th	e traffic sa	fety exam		
Teaching meth	nods	ex-chair	r lectures, wor	kshops, discus	sio	ns, focus grou	ps, individu	ual and grou	p work	
		1. Intro	duction, subje	ct and method	l of	study.				
		2. Legar iudicial	basis of expe	rt evaluation, p	lac	ce and role of t	rattic and	technical ex	pertise in	
		3. Meth	odology of tra	affic-technical a	ana	alysis of traffic	accidents			
		4. Ways	to express th	e views of exp	ert	s D				
		5. Conte	ent of expert f ification of tra	indings and op Iffic accident tr	ace	ons: Backgrou	nd			
		7. Conte	ents of the exp	pert's findings a	anc	d opinions: Exp	ert's findir	ng - analysis	of injuries	
Course conten	t	and dan	nage to the ve	ehicle						
		8. Conte	ent of expert f	indings and op	ini	ons: Expert Fir ons: Expert fin	idings - ani ding - lami	alysis of ven htrace analy	icle traces	
		10. Calc	ulation of veh	icle speeds inv	olv	ed in a traffic	accident		515	
		11. Dete	ermining the I	ocation of the	col	lision				
		12. Defi 13. Lise	ning a traffic a	accident omission and specialize	ion d s	oftware in traf	fic accider	t expertise		
		14. Spec	cificity of expe	ertise of particu	ılar	r traffic accide	nts	expertise		
		15. Spec	cificity of expe	ertise of particu	ılar	r traffic accide	nts			
				Textbook	(s)				Degee	
Autho	or/s	Name of publication, publisher Year (from-te						(from-to)		
1. Dragac R.	ragac R. Road Traffic Accident Investigation and Expertise, (J.P. 2007. 1-56 SRJ Official Gazette), Belgrade							1-560		
2. Dragac R. i	Vujanic N	И. Tra	affic Safety Pa	rt II, Faculty of	Tra	ansportation, I	Belgrade	2002.	79-220	
 Vujanic M., Pesic D. i Li 	Antic B., povac K.	Co Fa	llection of tas culty of Trans	ks in traffic saf port and Traffic	ety c Ei	v, with practicung ineering, Be	ım, Igrade	2015.	1-240	

		Additional readings				
Author/s		Name of publication, editor		Year Page (from		ges n-to)
1. Lipovac K.		Traffic Accident Inspection - Elements of Traffic Tracology, College of Internal Affairs, Belgrade	2	2000.	1-2	08
		Assesment methods		Points		Per ce nta ge
	Pre	exam obligations				
		activity during class - tes	ts	10)	10
Fuchantian aritaria		colloquiun	15	5	15	
Evaluation criteria		positively evaluated seminar paper	20)	20	
	Fina	l exam				
		written part of the exa	m	35	5	35
		final exam - or	al	20)	20
	IN TOTAL		10	0	10 0 %	
Web sources					_	
Applicable from	16.0	06.2021 - 175 Session of the Councile, Faculty of Transport a	nd ⁻	Traffic er	ngineer	ing

Soft Y WCTOWN	24 C2		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							2005	
					Study proc		raffic	5			
• 82*	S ŝ			Profile:	The road t	ranspo	rt and traffic				
1215 4.5v3 JO 1	III -		I cycle I year of study								
Course title			TRAFFIC DESIGN								
Department		Dep	epartment of Road Traffic and Transport- Faculty of Transport					and	Traffic Engineering		
	Code			Cou	urse status	5	Seme	ster		ECTS credits	
САФ11СДО	0720508	35,0220)		elective		VII			5,00	
Professor/s	P	hD Vu	k Bogda	nović							
Associate/s	Ν	VSc Boj	ana Ris	stić							
	Weekly	y hours			Individ	lual stu	dent hours (pe	er semester)	Student workload coefficient S₀	
L	Т	E		LE	L		TE	LE		So	
Х	Y	Y Z X*15*S ₀ Y*15*S ₀						Z*15*S。			
Total teac	her wor	kload (hours,	per semes	ter)		Total student	workload (h	ours	s, per semester)	
X*:	15 + Y*1	L5 + Z*í	15 = W	hours			X*15*S _o +	Y*15*S _o + Z	*15*	S₀ = T hours	
		Tot	al wor	kload: W+	T=U _{opt} = 60	+ 90 =	150 hours pe	r semester			
	1	L. know	ledge o	of the theo	oretical bas	sics of u	rban planning	traffic netv	vork	s, design theory	
Course aims an	id 2	2. readii	ng, und	lerstandin	g and usin	g legal r	egulations and	l standards,	traf	fic engineering	
learning outcom	mes 3	3. indep	enden	t preparat	ion of tech	inical pr	oject docume	ntation (pro	jects	s) for intersections	
- · ·	4	l. indep	enden	t work on	calculation	is and o	ptimization of	light signals	S		
Prerequisites	P	vassed e	exam:	he theory	of traffic	flow					
Teaching meth	ods L	ectures	s, deba	te work, g	raphic exe	rcises, a	annual assignm	ient			
		1.	Introc	luction							
		2.	Basic	terms and	definition	S Vice des	ian cohoolo				
		⊃. ⊿	Thoto	rm «ongi	goou pract	ice, ues	and more on	incoring			
		4. 5	Spatia	l nrogram	elements	for traf	fic design	gineering			
		5. 6	Тупос	and typol	ogy of pro	iects cl	assification of	design			
		7	Stage	s of projec	t impleme	ntation		ucsign			
Course content	: I	8.	Legal	bases (of o	developme	ent of) p	projects (proje	t documen	tatio	n)	
		9.	Drivin	g speed m	anagemer	nt, traffi	metl	hods			
		10.). WOONERF concept of city planning, pedestrian zone, SHARED SPASE concept								
		11.	Bicycl	Bicycle traffic, design, safety, info-systems							
		12.	NEW	CONCEPTS	: Human e	enginee	ring in cities				
		13.	Traffic	: design ar	nd «design	for all»					
		14.	Light	signals, ca	culations,	system	s, engineering,	design			
		15.	Closin	g lectures							
			1		Text	book (s)					
Autho	or/s			Name	of publica	ition, pi	ublisher	Yea	r	Pages (from-to)	
			"Ел	тементи	саобраћај	ног про	ојектовања –				
Станић, Б.,	Вујин, Д	д.,	E	ыцикли	СТИЧКИ С	АОБРАТ	ъАЈ – стазе,	200	-		
Радован	ац, М.:		сигно	илизација	, опрема" Бооград N	, U3008 /11 06 7	ач: Caoopanaj 205-204-2-СП	<i>HU</i> 2006	э.	-	
		факултет, Београд, YU 86-7395-204-2, CD-									
			"F	IPMPUMU	nUI caofinata	vi, iuno ang	niekmoearta -				
Здравковић, П	h, П., Станић, Б., ВЕРТИКАЛНА СИСНАЛИЗАЦИЈА" издавач										
Вуканов	вић, С.,		Caof	браћаіни о	ь сталов вакултет	. Беогр	ад. ҮU 86-739	5- 2003	3.	-	
Милосављ	евић, С	.:	2200	,	148-8. CI	, D-ROM:		-			
	. -	"Е	пементи	саобраћа	іног пр	ојектовања -					
Станић, Б., Здр	оавкови	ι'n, Π.,	XOF	изонтал	ІНА СИГНА	ЛИЗАЦ	ИЈА", издавач	1: 000	,		
Вуканов	ып, С.,	· .	Caol	браћајни с	факултеп	п, Беогр	рад, YU ISBN 8	6- 2003	5.	-	
илосављ	евип, С			7	<u>395-147-X</u>	, CD-RO	М;				
Станић, Б., (Эсоба, I	М.,	"Еле	менти са	обраћајно	г проје	ктовања - 30Н	IE 2006	5.	-	

Вукановић, С	.:	30", издавач: Саобраћајни факултет, Београд,				
		YU 86-7395-205-0, CD-ROM.				
		Additional readings				
Author/s		Name of publication, editor	Yea	r	Pages (from-to)	
БИХ		ЗАКОН О ОСНОВАМА БЕЗБЈЕДНОСТИ САОБРАЋАЈА НА ПУТЕВИМА У БОСНИ И ХЕРЦЕГОВИНИ	2006	2006.		-
БИХ		ПРАВИЛНИК О САОБРАЋАЈНИМ ЗНАКОВИМА И СИГНАЛИЗАЦИЈИ НА ПУТЕВИМА, НАЧИНУ ОБИЉЕЖАВАЊА РАДОВА И ПРЕПРЕКА НА ПУТУ И ЗНАКОВИМА КОЈЕ УЧЕСНИЦИМА У САОБРАЋАЈУ ДАЈЕ ОВЛАШТЕНО ЛИЦЕ	2007	' .	-	
		Assesment methods		Poi	nts	Percentage
	Pre-exa	mination obligations				
		presence in lectures/ theoretical exe	ercises	10		10%
Evaluation criteria		positively evaluated term	paper	20		20%
	Final exa	am				•
		Final exam (written examir	nation)	70		70%
TOTAL)	100%
Web sources						
Applicable from 16.06.2021. – 175. sessions of Teaching-Scientific Council of Traffic Engineering				ulty c	of Trans	port and

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: The road transport and traffic							
Course title					INTER	MODAL TRANSPO	RT			
Department		Depa	artment for Trar	sport Eng	ineering	g – Faculty of Traffi	c Engineering	ineering Doboj		
	Code		Cou	irse status	5	Semester		ECTS credits		
САФ11СД	07203685	,0220	0	optional		VI		5.00		
Professor/s	Dr	Sloboo	lan Zečević							
Associates/s	Weekly	Snežar hours	na Tadić	emester)	Student workload coefficient S _o					
L	TE		LE	L		TE	LE	So		
2	2	2 0 2*15*1,4=42 2*15*1,4=42 0*1					0*15*1,4=	1,4		
Total tead	her work	load (h	iours, per seme	ster)		Total student worl	load (hours, إ 15 م م م ال	er semester)		
2	15 + 2 15		tal workload: W	+T=l lont= f	50 + 84	= 144 hours ner sei	$\frac{15 \cdot 5_0 + 0 \cdot 15}{\text{mester}}$	- S ₀ – 1		
Course aims a learning outcomes	1. 2. 3. 4.	 Recognizes and defines the role and place of intermodal transport for different participants and users; Defines the structure of the intermodal system and determines the advantages and disadvantages of each element of the system in a particular intermodal transport chain; Compare classical and intermodal transport chain technologies; Assess the basic performance of the intermodal transport chain. 								
Teaching		specie								
methods	lec	tures,	tutorials, case s	tudies, del	oate cla	sses				
Course conter	1. 2. 3. 5. 6. 7. 8. 10 11 12 13 14 15 16	 Intermodalism, definition and delimitation of basic concepts in intermodal transport. Intermodal Transport (IT) system. Intermodal transport units (types, modular chain alignment). Optimization models of packaging, enlargement of intermodal units in the transport chain. Means of transport in IT. Standardization and codification in IT. Terminals and network of intermodal transport terminals. Transport and traffic infrastructure, organization and telematics systems in IT (Colloquium I). Container transport system technologies. Container terminals. Vehicle-to-vehicle transport technologies. Vehicle-vehicle road-rail transport technologies. Vehicle-vehicle rail-road transport technologies. Methodology of intermodal transport chain optimization. Methodology of intermodal transport chain optimization. 								
		Textbook (s)								
Auth	nor/s	/s Name of publication, publisher Year Pages (from-								
Zečević S	Zečević S., Tadić S. Intermodalni transport, autorizovana skripta 2016.									
	,			Additio	nal read	dings	N N	D (())		
Auth	nor/s		Name	e ot public	ation, p	oublisher	Year	Pages (from-to)		
LOW Priomus L	Niikama	D		of Interme	dal Fro	ight Transport:	2005.			
Konir	ngs R.	Γ.,	Operations, De	esign and	Policy, E	Edward Elgar Pub.	2008.			

Kim K.H., Günthe	er H.O.	Container Terminals and Cargo Systems: Design,						
		Operations Management, and Logistics Control	20	07.				
		Issues, Springer						
		Assesment methods		Points	;	Percentage		
	Preexam	nation obligations						
		attendance during lectures/ex	ercise	5		5%		
		activity during c	lasses	5		5%		
Ohlisstians			tests	20		20%		
Obligations,		colloq	20		20%			
critoria		Colloq	20		20%			
cincenta	Students who pass the colloquia are released							
	written part, final exam							
	Final exa	mination						
	Oral examination					30%		
	Overall			100)	100%		
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	t and T	raffic en	gine	ering		

		UNIV Faculty of		Sut mailing ages					
		Profile: The road transport and traffic I cycle IV year of study							
Course title		reyele	FREI	GHT FORWARDI	y NG				
Department	Departm Doboj	artment of Transport Engineering - Faculty of Transport and Traffic Engineering							
Cod	e	Course status Semester			er	ECTS credits			
САФ11СД0720	4985,0220	E	Electoral	VIII		5			
Professor/s	Assistant Prof	essor Slobo	odan Subotić						
Associate/s	Assistant Prof	essor Slobo	odan Subotić						
We	ekly hours		Individual stu	dent hours (per	semester)	Student workload coefficient So			
L	TE	LE	L	TE	LE	So			
2	2	0	45	45	0	1,5			
Total teacher 2*15 +	workload (hours) 2*15 + 0*15 = 6	, per semes 0 hours	iter)	Total student w 2*15*1,5 + 2*1	orkload (hou .5*1,5+ 0*15	irs, per semester) 5*1,5 = 90 hours			
	Total wo	orkload: W-	+T=U _{opt} = 60 + 90 =	= 150 hours per s	emester				
	Completing th	nis course s	tudents will be ab	ole to:					
	1. performs b	asic tasks ir	n freight forwardi	ng,					
Course aims and	2. prepare the	e structure	and elements of t	the supply of frei	ght forwardi	ng activities,			
learning outcomes	3. performs ta	isks related	to the installatio	n,					
	4. participate	s in custom	s representation a	and implemental	ion of custo	ms procedures,			
Dronoguicitos	5. participate	s in insuran	ce business in tra	nsport.					
Teaching methods	No prerequisi	ites	coc cominar worl	,					
Teaching methous		nte dovolo	ses, seminar worl	opmont of forwa	rding activiti	ioc			
	2 Structure o	f freight for	rwarding function	opinient of followa	rung activit	165			
	3 Internal or	anization o	of freight forward	ing					
	4. Association	s for the pr	romotion and dev	elopment of forv	varding activ	vities			
	5. Commercia	nercial operations in freight forwarding and creation of forwarding offers							
	6. Documents	uments in international commodity flows							
	7. I colloquiur	lloquium							
Course content	8 Internation	onal Delivery Conditions - INCOTERMS 2010							
course content	9. Technology	of organiz	ation of forwardir	ng operations in	export and ir	nport flows			
	10. Technolog	gy of organi	zation of collectiv	e transport and	transit flows				
	11. TIR system	n, ATA carn	et, freight forwar	ding					
	12. Freight fo	rwarding ad	ctivities in custom	s representation	, implement	ation of customs			
	procedures								
	13. Condition	s and proce	edures in internat	ional freight forw	arding and r	road transport of goods			
	15. Il colloqui	um	i transport, with p			ansport			
	120111 00110 qui		Textbook (s						
Author/s		Name	of publication, p	, ublisher	Year	Pages (from-to)			
	1.	Freight for	warding, authoriz	ed script, Facult	/				
		of Transpo	rt and Traffic Eng	ineering Beograd					
1. Kilibarda,	M. 2.	Freight fo	rwarding, practi	cum, Faculty o	f 2008.	1-154			
2. Gajić, V., C	čakić, Đ.	Technical S	sciences, Universi	ty of Novi Sad	2013.	1-143			
3. Stojanović	, Ð. 3.	Freight fo	rwarding, script,	Department o	t 2015.	1-189			
	Traffic Engineering, Faculty of Technical								
		sciences, L	Additional road	Jau					
Author/c		Nam	Additional read	editor	Voor	Pages (from to)			
Zelenika P	Form	Nam adations of	Logistics Froight	Forwarding	2005	1_672			
Zelettika, R.	FOU		LOBISTICS LIGISIT	i oi walullig,	2005.	1-072			

		University of Rijeka							
		Assesment methods		Points	Percentage				
F	Pre-exa	n obligations							
	Presenc	e of lectures / exercises	:	10	10 %				
	Seminar	work	:	20	20 %				
Evaluation criteria	Colloqui	um		2x35	70 %				
	Final exa	Final exam							
	Final exa	am (oral / written)							
	TOTAL			100	100 %				
Web sources									
Applicable from	16.06.20	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							
RAILWAY TRAFFIC

AND AND	BC BC BC BC BC		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineerir Study program: Traffic Profile: Railway traffic	ıg				2 Sector	A060J	
Number	Code Course title					Semester	H	ours emes	per ter	ECTS
				Ŭ	S		L	TE	LE	
			III year of study			1	-		-	
28.	САФ11СЖ	(07105356,0320	Railway Tracks	0		V	3	2	0	6.00
29.	САФ11СЖ	{07105457,0330	Railway vehicles	0		V	3	3	0	7.00
30.	САФ11СЖ	(07105556,0320	Exploatation of railroad wagons	0		V	3	2	0	6.00
31.	САФ11СЖ	{07103155,0220	Ecology in traffic	0		V	2	2	0	5.00
32.	САФ11СЖ	{07103256,0320	Mechanization and tehnology of transhipment	0		v	3	2	0	6.00
33.	САФ11СЖ	(07105866,0330	Railway stations and nodes	0		VI	3	3	0	6.00
34.	САФ11СЖ	{07106566,0320	Train traction	0		VI	3	2	0	6.00
35.	САФ11СЖ	(07134466,0330	Railway signaling and safety devices and	0		VI	3	3	0	6.00
	ርል መነገር ዝ	107203665 0220	1 Intermodal transport			VI				
36.	САФ11СЖ	(07204965.0220	2. Shipping							
	САФ11СЖ	(07234365.0220	1. Maintenance of railway infrastructure			VI				
37.	САФ11СЖ	(07207065,0220	2. Maintenance of railway wagons	l ₃		VI	2	2	0	5.00
38.	САФ11СЖ	(07132962,0000	Graduate thesis	0		VI	0	0	0	2.00
					Т	OTAL:	27	23	0	60
			IV year of study							
39.	САФ11СЖ	{07106276,0321	Freight transport technology and organization	0		VII	3	2	1	6.00
40.	САФ11СЖ	(07106376,0311	Passenger transport tehnology and organization	0		VII	3	1	1	6.00
41.	САФ11СЖ	(07106676,0311	Railway traffic technology	0		VII	3	1	1	6.00
42.	САФ11СЖ	{07106775,0220	Regulatory system of railway transport	0		VII	2	2	0	5.00
43.	САФ11СЖ	(07120577,0330	Modeling in railway transport	0		VII	3	3	0	7.00
44.	САФ11СЖ	{07104586,0320	Organization of traffic companies	0		VIII	3	2	0	6.00
45.	САФ11СЖ	(07104685,0220	Quality management	0		VIII	2	2	0	5.00
46.	САФ11СЖ	(07105785,0220	Safety of railway traffic	0		VIII	2	2	0	5.00
47	САФ11СЖ	(07234585,0220	1. Railway marketing and marketing operations				2	2	0	F 00
47.	САФ11СЖ	{07234685,0220	2. Engineering economics in railway traffic and transport	14		VIII	2	2	U	5.00
48.	САФ11СЖ	{07234785,0220	1. Analysis of emergency events on the railway	I 5		VIII	2	2	0	5.00
САФ11СЖ07206485,0220			2. Testing of railways and vehicles							
49. CAΦ11CЖ07105284,0030 Professional practice O V							0	3	0	4.00
					Т	OTAL:	25	22	3	60.0

L - lectures
TE - theoretical exercises
LE - laboratory exercises

ST Y HOTOHHO			UNI	ERSITY OF	EAST S	ARAJEVO			2005	
.18.			Faculty of	Transport	and Tra	ffic Engineerir	ng		Straham Cashing	
PANC		Study program: Traffic Profile: Railway traffic								
				Profile: Ra	ilway ti	raffic			AOKOJ	
4353 30 2			l cycle			III year of st	udy			
Course title		Deve evities			R/		KS Traffia Frazira		- Dahai	
Department		Departme	ent for Tra	nsport Eng	ineering	g – Faculty of	I raffic Engin	eerin	g Doboj	
	Code		Co	urse status	5	Semester			ECTS credits	
САФ11СЖ	07105356	,0320	с с	ompulsory		V			6,00	
Professor/s	Phi	D Miloš IVIO	<u>×</u> . ∡							
Associate/s	MS	c Vladimir	nir MALČIĆ				<u> </u>			
	Weekly h	ours		Individual student hours (per sem			er semester))	coefficient So	
L	TE		LE	L		TE	LE		So	
3	2		0	3*15*2	L,4	2*15*1,4	0*15*1,4	ł	1,4	
Total teac	her workle	oad (hours,	per semes	ster)		Total student	workload (h	ours,	per semester)	
3*1	15 + 2*15	+0*15 = 7	5 hours			3*15*1,4 + 2	*15*1,4 + 0*	*15*1	1,4 =105 hours	
		Total wor	kload: W+	$T=U_{opt} = 75$	5 + 105	= 180 hours p	er semester			
	Ву	mastering 1	nis course	students v	will be a	ible to:	or regulation		coouring railway	
	1.	traffic	the comple	ex problem	i oi teci		orregulating	s anu	securing ranway	
Course aims an	d 2	Knowing	modern ra	il transpor	t systen	าร				
learning outco	mes 3.	lt possess	es wide kr	nowledge i	n the fie	eld of railway	signaling and	l safe	ty devices and	
Ū		means of	connectio	n on the ra	ilway, v	, which is the m	ost importar	nt pre	condition for	
		operatior	operation on the railway.							
	4.	Follow th	Follow the world trends in this area and is qualified to propose applications with us.							
	The	conditions for passing the course are:								
	1.	regular at	egular attendance (lectures and exercises),							
Prerequisites	2.	complete	d and defe	nded elab	orate,					
	3.	all colloqu	all colloquiums passed,							
Tooching moth	4.	all test pa	ssea.	omputatio			ations			
reaching meth			ont charac	toristics d		ment and futu	re of railway	is and	t railway lines	
	2	Track con	structive e	lements F	lement	s of the super	structure	's and	a ranway intes	
	3.	Elements	of the sub	structure	lement	s of the super-	Structure			
	4.	Track geo	ometry							
	5.	Horizonta	, I alignmer	nt design-	tangent	s and courves				
	6.	Vertical a	lignment	design. Res	sistance	s and gradient	ts (1st colloc	luium	ו)	
	7.	Track con	nections:	Crossings						
Course content	t 8.	Track con	nections:	Traversers	and tur	ntables				
	9.	Track con	nections: S	Switches -	compor	nents and class	sification (2 '	nd CO	lloquium)	
	10.	The opera	ation of rai	Iroad swite	ches				·· · ·	
	11.	The horiz	ontal and v	vertical cor	nfigurat	ion requireme	ents for sets	of sw	itches	
	12.	Basic trac	liway liaci k characte	vistics for 1	metro a	nd tram lines				
	14	Basic trac	k characte	ristics for I	nigh sne	ed railway lin	es			
15. Planning and design methodology for railway lines (3 rd colloquium)										
				Text	book (s)	, - ,	_	,		
Autho	or/s		Name	ne of publication, publisher		Yea	r	Pages (from-to)		
1.44	N /	Rai	lway track	s, Faculty o	of Trans	port and Traff	ic 2001	2005		
IVIC	IVÍ.		E	ingineering	g, Belgra	de	2005	2005		
lvić	M	Rail	way tracks	s - switche	s and ci	rossings, Facul	lty 2005	; [
		of	Transport	and Traffic	Engine	ering, Belgrad	e 2005			
lvić M., Ko	osijer M.	Ra	lway track	s -workbo	ok Facu	Ity of Transpo	rt 1998	3.		

		and Traffic Engineering, Belgrade							
Additional readings									
Author/s		Name of publication, editor	Yea	r Pa	Pages (from-to)				
lvić M		Railway tracks, Lectures in the form of PP							
		presentations							
		Assesment methods		Points	Percentage				
	Preexan	nination obligations							
		The student's activity during le	ectures	5	5 %				
		Ela	20	20 %					
Evaluation criteria			10	10 %					
		Colloc	quiums	45	45 %				
	Final exa	amination							
		Oral exami	20	20 %					
	Total		100	100 %					
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Ti	raffic engi	neering				

			UNIV Faculty of	ERSITY OF E Transport an Study progra Profile: Railv	AST S d Tra Im: T Vay t	ARAJEVO ffic Engineering raffic raffic	g		COO Solution COOA
Course title			I cycle		R۸		idy FS		
Department		Departme	ent for Trai	nsport Engine	eering	g – Faculty of T	raffic Engine	erin	ng Doboj
	Code	-	Сон	ourse status Semester			iter		ECTS credits
САФ11СЖО	7105457,	0330	со	mpulsory		V			7,00
Professor/s			4						
Associate/s	MS	c Sanja SIN	lic						
	Weekly h	ours		Individua	al stu	dent hours (pe	r semester)		coefficient So
L	L TE			L 2*15*1 2		TE	LE		S ₀
5 Total teach	3 Jer workle	ad (hours	U Der semes	ter)	כ	Total student v	workload (be		1,33 per semester)
3*1	.5 + 3*15	+ 0*15 = 90) hours		3	*15*1,33 + 3*1	15*1,33 + 0*	15*	1,33 = 120 hours
		Total wor	kload: W+	T=U _{opt} = 90 +	120	= 210 hours pe	r semester		,
Course aims and learning outcon	d nes par pra	opting basic ving and to ining the p ameters of ctical appli	c knowledg wing vehic erformanc electric to cation in ra	e in the field les. Defining e of diesel lo wing vehicle ailway traffic.	l of te and a como s as a	echnical charac analyzing the m ptives and diese necessary con	teristics and nain subsyste el motor sets ndition for th	con ems s. Sti ie te	nstruction of diesel of the vehicle. udying with technical schnology of their
Prerequisites	Stu cor	dents are consultations.	bliged to a	ittend classe	s, do	seminar work,	take colloqu	iium	is, and attend
Teaching metho	ods lect	ures, audit	ory and co	mputational	exer	cises, consultat	tions		
 Marking, comparative characteristics and block diagrams of diesel towing vehicles Diesel engine. Characteristics and working principles of two and four stroke diesel engines. Task, selection and division of power transmission of diesel towing vehicles Main subsystem and construction of mechanic and hydrodynamic power transducers Turbo locomotives. Motorcycles. Motor trains. Passenger wagons and freight wagons classification and parameters. Box wagons Concept of construction, characteristic and types of high speed classics and diesel motives sets Crankshafts of traction and towing vehicles. Towing and reflection equipment (I colloquium) Railway vehicles brakes Electric locomotives, electric motors and diesel electric locomotives - general characteristics and connection schemes Electric traction motors. Locomotives and electric motors for direct current systems Multisystem towing vehicles. Locomotives and electric towing vehicles 								wing vehicles stroke diesel ehicles ower transducers . Box wagons ics and diesel motor quipment (I - general current systems single-phase system	
				Textbo	ok (s)				
Autho	or/s		Name	of publication	on, p	ublisher	Year		Pages (from-to)
Pajić	D.	To	wing vehic News p	rehicles, machine parts Institute for ws publishing and Propaganda					
Dinić	D.	Ra	Railway Electric Vehicles, Traffic Engineering, 1995 Belgrade 1995						
Autho	r/s		Nam	Additional	read tion	ings editor	Vear		Pages (from-to)
7.0.010	- / -								

		Assesment methods		Points	s	Percentage
	Preexam	ination obligations				
		Presence during lec	10)	10 %	
Evaluation exitaria		Seminary	2x5	5	10 %	
Evaluation criteria		Colloq	2x2	5	50 %	
	Final exa	amination				
		Oral examin	ation	30)	30 %
	Total			100	0	100 %
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	and Tr	affic er	ngine	ering

Pice Pice			UNIV Faculty of	ERSITY OF Transport a Study prog Profile: Ra	EAST S and Tra gram: T ilway tu	ARAJEVO ffic Engineerin raffic raffic III year of st	g		A050	
Course title			reycie	EXPLC	ΟΑΤΑΤΙΟ	ON OF RAILRO	AD WAGON	IS	and the second	
Department		Departme	ent for Trai	nsport Eng	ineerin	g – Faculty of 1	Traffic Engin	eering D	oboj	
Cod	le		Сон	urse status	;	Seme	ster	E	CTS credits	
САФ11СЖ071	05556,0	0320	со	mpulsory		V		6,00		
Professor/s	PhD	Branislav	Bošković							
Associate/s	MSc	: Vladimir	MALČIĆ							
We	eekly ho	ours		Individ	ual stu	dent hours (pe	er semester)	St	udent workload coefficient So	
L	TE		LE	L		TE	LE		So	
3	2		0	3*15*1	.,4	2*15*1,4	0*15*1,4	<u>ا</u> ا	1,4	
3*15 -	worкio + 2*15 +	ad (nours, + 0*15 = 7	per semes 5 hours	ster)		3*15*1,4 + 2 ³	workload (n *15*1,4 + 0*	ours, pe •15*1,4 :	r semester) =105 hours	
	_	Total wor	kload: W+	$T=U_{opt}=75$	+ 105 =	= 180 hours pe	er semester			
Course aims and	Mee	et students	with char	acteristics	of freig	ht and passen	gers rail wag	gons and	basic knowlegde	
learning outcomes	s nee	ded for the	eir rational	use and m	nanager	nent.	voreises at t	ho ŽDC	maka cominar	
Prerequisites	pap	ers, hold c	olloquiums	s, and atte	nd cons	end practical e sultations.	xercises at t	ne zks,	make seminar	
Teaching methods	E Lect	ures, aurit	ory and co	mputation	al exer	cises, consulta	tion.			
Course content	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 2. 2. 3. 3. 4. 15. 14. 15. 15. 15. 15. 10. 10. 10. 10. 10. 10. 10. 10	technolog The basic capacity a Review of Codificati Indicators wagons a Indicators wagons Regulatio Optimizin Place and in the tra Optimizin Place and in the tra of the str Dimensio Maintena Informati Ill colloqu	gical and ex- concepts of and schedu f vehicle re- on of railw s of the use ccording to s of the use a the distr role of fre- nsport man ind import ucture of the ning and d nce of pas on systems ium	sploitation of correct l ile of shipn cords and ay wagons of freight o load capa e of freight e of freight ibution of ight wagon ket (II colle ance of the he freight p evelopment senger and s for monit	charac oading nent an reasons Examp wagon acity wagon nd use empty ns as th oquium e proble park nt of the d freight coring fr	teristics of the of freight wag d vehicle insur s for the existe oles of wagons s - basic conce s - turnover of of wagons. Ag wagons e main asset o) em of planning e size and struct wagons reight wagons	wagon ons, limitati ance for wa nce of recor- registration pts, work of wagons, ind reements RI f the railway the develop cture of the - requireme – examples	ons in te gon ship ds and r is (I collo wagons dicators o V, RIC ar y carrier oment ar park nts to re	rms of carriage egulations oquium) , indicators of of productivity of nd COTIF and its position nd optimization	
Author/s		1	Namo	of publica	DOOK (S)	ublicher	Vea	r 1	Pages (from-to)	
Aleksandro	, V.		Railway To	wed Vehic	les. Želi	nid. Belarade	200	<u> </u>		
Bošković l	3.	Wr	Kuilway Towea Venicies, Zeinia, Beigrade 2000 Written material and presentations in the form					~	-	
			PP Additional readings							
Author/s	5		Nam	Name of publication. editor Year				r I I	Pages (from-to)	
		Reg	ulation 24 vehicle	241 - on the maintenance of railway cles in the Republic of Srpska						
Evaluation criteria			A	ssesment	metho	ls		Points	Percentage	

	pre-exam obligations		
	Presence during lectures	10	10%
	Seminar papers	20	20%
	Colloquium	3x10	30%
	Final examination		
	Oral examination	40	40%
	TOTAL	100	100%
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	raffic engine	ering

A WCTOWNON			UNIV	ERSITY OF EAST	SARAJEVO			12	005		
-18.	2 ² 2	Faculty of Transport and Traffic Engineering Study program: Traffic Descile: Descile: Descile: Traffic							A CAL		
		Study program: Traffic Profile: Railway traffic									
200 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	III -	I cycle I year of study							AOEO1		
Course title	<u> </u>		i cycle	F(FFIC		Anna			
Department		Depa	artment of Road	Traffic and Tra	nsport- Faculty	of Transport	and	Traffic	Engineering		
	Codo	Dep		urse status Semester				ECTS	crodite		
	Loue			Course status Semester				ECTS credits			
САФ11СЖ07103	3155,0220)	compulse	ory	V		5,0	0			
Professor/s	Mil	an Mi	lotić, Associate	Professor							
Associate/s	Mil	an Mi	lotić, Associate	Professor				a. 1			
	Weekly h	ours		Individual st	udent hours (po	er semester))	Stude coe	nt workload efficient So		
L	TE		LE	L	TE	LE			So		
2	2		0	2*15*1,5=45	2*15*1,5=4 5	2*15*1,4=	=0		1,5		
Total teach	ner worklo	oad (h	ours, per semes	ter)	Total student	workload (h	ours	, per se	mester)		
2*1	<u>5 + 2*15</u>	+ 0*15	5 = 60 hours		2*15*1,5 + 2	2*15*1,5+0*	*15*	1,5 = 90	hours		
		Tota	l workload: W+1	Γ=U _{opt} = 60 + 90	= 150 hours p	er semester					
	Ву	maste	ring this course	students will be	able to:						
	1. a	inalyz	e the problems	of environmenta	al pollution;						
Course aims an	d 2.g	get acc	quainted with no	ormative and lea	gal regulations r	elated to en	viron	mental	protection;		
learning outcom	nes 3. g	3. get acquainted with the global effects of pollution;									
	4. g	4. get acquainted with the tendencies of future development of motor vehicle propulsion as well as to apply the acquired knowledge in practice									
Proroquisitos	nor	none									
Teaching metho	nds Lec	Lectures, auditory exercises, consultations									
i cucining incent	1. E	1. Biosphere and ecology									
	2. F	2. Problems of environmental pollution									
	3. N	3. Normative and legal regulations									
	4. N	Maxim	um allowable co	oncentrations							
	5. A	ir pol	lution and prote	ection							
	6. N	6. Normative and legal regulations on air quality									
.	7.1	colloc	quium								
Course content	8. 6	lue ga	as purification	hi a la							
	9.0	Traffi	c and environm	uon ental pollution							
	10.	Imna	ct of traffic on th	ne environment							
	12.	Norm	native and legal	regulations for e	exhaust gas emis	ssions					
	13.	Meth	ods of analysis of	of exhaust gas co	omposition in m	otor vehicle	S				
	14.	Tende	encies of future	development of	f motor vehicle	propulsion					
	15.	II coll	oquium								
				Textbook ((s)						
Autho	or/s		Name	of publication,	publisher	Yea	r	Page	es (from-to)		
Đurić, S., Star	nojević, P.	,	Ekologija u s	aobraćaju, Saok	praćajni fakultet	t 201	6				
Milotić	с, М.			Doboj	dinge						
Autho	or/s		Nam	Additional rea	aings Aditor	Vea	r	Dag	os (from-to)		
Autho	// 5		INGU			Tea	•	гад			
							D-1	nto	Deveoutors		
	Dro	-022	A	ssesment meth	uds		101	nts	Percentage		
Evaluation crite	eria	-exdil		attend	ance at lectures	/ evercises	10		10%		
				attenua			10 10	05	50%		
					(colloquium	ZXZ	.5	50%		

	term paper	10	10%
	Final exam		
	Oral exam	30	30%
	TOTAL	100	100%
Web sources			
Applicable from	16/6/2021 - 175th session of the Council of the Traffic Faculty		

SET Y WCTOYHO				UNIV	ERSITY OF EAS	ST S	SARAJEVO			2005	
		Faculty of Transport and Traffic Engineering Study program: Traffic								- Salar - And - F	
		Study program: Traffic Profile: Railway traffic									
]				Profile: Railwo	y ti	raffic			AOEOJ	
Course title								μαγ ν οε τραινό		MENIT	
Department		Den	artme	nt for Trai	nsport Enginee	rin	g – Faculty of 1	Traffic Engir	neerii	ng Doboi	
Department										16 5050]	
	Code			Cou	urse status Semester			ster		ECTS credits	
САФ11СЖ(07103256	,0320)	со	mpulsory	V			6,00		
Professor/s	Ph	D Ratko ĐURIČIĆ									
Associate/s	MS	ISc Sanja SIMIĆ									
	Weekly h	ours			Individual	stu	dent hours (per semester)	Student workload coefficient S _o	
L	TE			LE	L		TE	LE		So	
3	2			0	3*15*1,4=63		2*15*1,4=4 2	0*15*1,4	=0	1,4	
Total teac	ner workle	oad (h	nours,	per semes	ter)		– Total student	workload (l	nours	s, per semester)	
3*:	15 + 2*15	+ 0*1	15 =75	hours	,		3*15*1,4 + 2*	*15*1,4 + 0	*15*	1,4 = 105 hours	
		Tot	al worl	kload: W+	T=U _{opt} = 75 + 1)5 =	= 180 hours pe	er semester			
	By	maste	ering tl	his course	, students will	be a	able to:				
	1.	Το ι	unders	tand the b	asic principles	of	the place, role	and signific	cance	e of the reprocessing	
		pro	cesses	in reprod	uction, will be	abl	e to understan	d the cause	e-effe	ect links of starting	
	2	com	nmodit	y flows in	the process of	rep	production and	d time-non-	synch	hronized production.	
	2.	Ine	y will t cion of	e able to	analyze the pa	ran	neters that infl	luence the (overi	oad, learn the	
Course aims an	d 3	Con	tinuou	inechaniz	ic actuators w	ll h	en as their goo le able to use r	nethods for	raits calci	ulating canacities and	
learning outcor	nes ^{3.}	3. Continuous and cyclic actuators will be able to use methods for calculating capacities and required power									
	4.	required power. 4. It will be able to demonstrate the establishment of a transhipment system with									
		 It will be able to demonstrate the establishment of a transhipment system with transhipment effects 									
	5.	5. They manage transhipment processes, and that, after gaining practical experience in									
		logistics centers, they manage individual sectors or organizations that are responsible for								at are responsible for	
		trar	nshipm	ent proce	sses.						
Prerequisites	No	ne.									
Teaching metho	ods Leo	tures	, audit	ory exerci	ses, consultati	on.				al ta also al a su	
	1.	Intr	oducti	on to the s	subject. The ba		concepts of m	iechanizatio	on an	id technology	
	2	Tran	nsactio	ent. me i n task and	realization of	ess the	e transhinmen	t nrocess			
	3.	CON	NTINU	DUS ASSET	S - Belt conve	vor		r process			
	4.	A cl	ustere	d conveyo	r. Transporter	scr	aper.				
	5.	Elev	/ators.	Redlers. H	langing convey	/or					
	6.	Wo	rm con	iveyor. Ro	tary excavator	. Pr	neumatic Conv	eyors (Prep	arati	on for I Colloquium)	
	7.	Add	lers. Gi	ravity conv	veyors (I colloc	luiu	um)				
Course content	8.	(Ana	alysis c	ot Colloqui	iums) CYCLICA	_ M	EANS - Transp	ort and har	dling	g vehicles	
	9.	Forl		lassificatio	on, elements, s	tab	ility, applicatio	on arte mevet	how	ahiala	
	11). FUIT	nsport	and hand	ling vehicles fo	r co	nning the powe	lling Regal	ine Ve lifte		
	12	2. Crai	nes - cl	assificatio	n, elements, a	ppl	ication. transh	ipment cvc	le, no	ower determination	
	13	3. Aut	omatic	ally driver	n vehicles. Des	igni	ing of the tran	shipment p	roces	ss (Preparation for	
		the	II collo	quium)		-	-				
	14	14. Il colloquium									
	15	5. (An	(Analysis of the II colloquium) The closing word and the signature of the index.								
			Textbook (s)								
Autho	or/s			Name	of publication	, pi	ublisher	Yea	ir G	Pages (from-to)	
Đuriči	c R.		Ν	/lechaniza	tion of traffic,	scri	ipt,Faculty of	200	16		

		Transport and Traffic enginnering, Doboj				
		Mechanization of transhipment, transhipment				
Sretenović M	l.	machine and dessigne of transhipment	6			
		processes, Belgrade				
		Internal transportation, Warehousing and				
Milorad V.		Transhipment, Faculty of Transport and Traffic	200	1		
		engineering, Belgrade				
		Additional readings				
Author/s		Name of publication, editor	Yea	r	Page	es (from-to)
		Assesment methods	1	Poi	nts	Percentage
	Pre-exa	Assesment methods n obligation		Poi	nts	Percentage
	Pre-exa	Assesment methods n obligation Presence during le	ectures	Poi	nts 10	Percentage
	Pre-exa	Assesment methods n obligation Presence during le Activity during le	ectures ectures	Poi	nts 10 5	Percentage 10% 5%
Evaluation criteria	Pre-exai	Assesment methods n obligation Presence during le Activity during le Completed colloquiums	ectures ectures s-tasks	Poi	nts 10 5 35	Percentage 10% 5% 35%
Evaluation criteria	Pre-exai	Assesment methods m obligation Presence during le Activity during le Completed colloquiums Completed colloquiums-	ectures ectures s-tasks theory	Poi	10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exai	Assesment methods n obligation Presence during le Activity during le Completed colloquiums- am	ectures ectures s-tasks theory	Poir	nts 10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exal	Assesment methods n obligation Presence during le Activity during le Completed colloquiums- am Final exam(tasks-t	ectures ectures s-tasks theory heory)	Poir	nts 10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exal	Assesment methods m obligation Presence during le Activity during le Completed colloquiums- Completed colloquiums- am Final exam(tasks-t L	ectures ectures s-tasks theory heory)	Poir	nts 10 5 35 50 100	Percentage 10% 5% 35% 50% 100%

Set y WCTOWING			UNIV	ERSITY OF	EAST S	ARAJEVO		2005	
.18			Faculty of	Transport a	and Tra	ffic Engineering		South A State	
				Study prog	ram: Ti	raffic			
				Profile: Ra	ilway ti	affic		AOEOJ	
Course title			Тсусіе	RA				and branch and a start of the s	
Department		Departr	ment for Trai	nsport Eng	ineering	g – Faculty of Tra	ffic Engineer	ing Doboi	
	<u> </u>	1							
	Code		Col	urse status	5	Semeste	r	ECTS credits	
САФ11СЖ	07105866	,0330	со	mpulsory		VI		6,00	
Professor/s	Ph	D Miloš IV	/IĆ						
Associate/s	MS	ic Vladimi	ir MALCIC						
	Weeklyh	ours		Individ	ual stu	dent hours (per s	emester)	Student workload coefficient So	
L	TE		LE	L		TE	LE	So	
3	3		0	3*15*	1	2*15*1	0*15*1	1	
Total teac	her workl	oad (hour	s, per semes	ter)		Total student wo	orkload (houi	rs, per semester)	
3*:	15 + 3*15	+ 0*15 =	90 hours	T 11 0	0.00	3*15*1+3*3	15*1 + 0*15 [·]	*1 =90 hours	
	6	TOTAL W	VORKIOAU: VV+	$T = U_{opt} = 9$	0 + 90 =	180 nours per so	emester		
		identify	and classific	ato railway	will be	enduleu lu.	and function	ality	
Course aims an	d 2	identify	and selects	the necess	arv faci	lities / elements	in the railwa	v stations according to	
learning outcom	mes	needs,			,			,	
-	3.	define a	and size the t	he necess	ary facil	ities / elements i	n the railway	v stations,	
	4.	 to participate in making project proposals and project documentation. 							
	Ad	mission re	eguirements	previous	ly atten	ded course: Plan	ning and des	ign of railway tracks	
	The	The conditions for passing the course are:							
Prerequisites	1.	 regular attendance (lectures and exercises), completed and defended elaborate 							
-	2	 completed and defended elaborate, all colloquiums passed 							
	3	 all colloquiums passed, all test passed 							
Teaching meth	ods Leo	tures. au	ditory and co	omputation	nal exer	cises. consultatio	ons		
	1.	The con	icept, charac	teristics, d	evelopr	ment and future	of railway sta	tions and nodes	
	2.	Constru	ictive elemer	nts of railw	ay stati	ons and nodes			
	3.	Station	tracks, siding	gs and yard	ls				
	4.	Classific	cation and ba	isic compo	nents o	f railway stations	5		
	5.	Railway	station oper	rations (1°	' colloc	luium)	· · · · · · · · · · · · · · · ·		
	6.	The bas	lic elements	and metho	as tor c	imensioning stat	ion facilities	on characteristics	
	/.	and dim	nensioning					on, characteristics	
	8.	The bas	ic componer	nts of passe	enger st	ations- classifca	tion, charact	eristics and	
Course content	t	dimensi	ioning		0		,		
	9.	The bas	ic componer	nts of mars	halling	yards– classifcati	on, characte	ristics and	
		dimensi	ioning (2 nd c	olloquium)				
	10	D. Evaluat	ion of hamp	and flat m	arshalin	g yards (3 rd collo	oquium)		
	1:	L. Service	facilities - ta	sk, classific	cation, o	characteristics an	d dimension	ing	
	13	2. Railway	port yards, i	erminals -	- task, c	assification and	aimensionin nd charactor	g	
	1.	4 Railway	nodes: The	hasic elem	ents Th	e conditions for	rational com	nosition of railroad	
nodes									
15. Planning and design methodology for railway stations and nodes (4 th colloquium)								1 th colloquium)	
				Textk	ook (s)		•		
Autho	or/s		Name	of publica	tion, p	ublisher	Year	Pages (from-to)	
lvić	M	R	ailway tracks	s - switches	s and cr	ossings, Faculty	2005		
IVIC		c	of Transport a	and Traffic	Engine	ering, Belgrade	2005.		

Milošević B.		Railway station facilities, Faculty of Transport and Traffic Engineering, Belgrade	3.		
Milošević B.		Railway stations and nodes – Dimenzioning station facilities, Faculty of Transport and Traffic Engineering, Belgrade).		
Author/s	Yea	r F	Pages (from-to)		
lvić M.		<i>Railway stations and nodes,</i> Lectures in the form of PP presentations			
		Assesment methods		Points	Percentage
	Preexam	nination obligations			
		The student's activity during le	10	10%	
		Elaborate 20			
Evaluation criteria			Tests	10	10%
		Colloc	40	40%	
	Final exa	amination			
		Oral examination			20%
	Total				100%
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Ti	raffic eng	gineering

у истоинон			U		EASTS	SARAJEVO			2005 Mailing Org	
•18•	2/12 Jean		Faculty	of Transport	and Tra	affic Engineerin	g		See. No the	
				Study prog	iram: T	raffic				
10 to 45to 30 54	III		Lovo		liway t	Ill year of stu	udv		AOEOJ	
Course title			Тсус	C	Т		N			
Department		Der	partment for	Transport Eng	ineerin	g – Faculty of 1	Traffic Engine	eerir	ng Doboi	
									.8 2 0 0 0 1	
C	code			Course status	5	Seme		ECTS credits		
САФ11СЖО	7106566	,0320)	compulsory		VI			6.00	
Professor/s	Phi	D Pre	drag JOVANO	VIĆ						
Associate/s	MS	Sc Vladimir MALCIC								
	Weekly h	ours		Individ	ual stu	ident hours (pe	er semester))	Student workload coefficient So	
L	TE		LE	L		TE	LE		So	
3	2		0	3*15*2	_,4	2*15*1,4	0*15*1,4	ŀ	1,4	
Total teach	er workle	bad (l	hours, per ser	nester)		Total student	workload (h	ours	s, per semester)	
3*1	5 + 2*15	+ 0*1	15 = 75 hours	laad: 75 + 10	100	3*15*1,4 + 2*	*15*1,4 + 0*	15*:	1,4 = 105 hours	
	1	Dv	I OTAL WORK	10ad: 75 + 10:	b = 180	nours per sem	ester	sinlo	c of train traction and	
	1.	will	get the ahilit	v to independ	ently d	letermine runn	ing diagram	s		
	2.	Stu	dents will als	o be able to	calcula	te train runnir	ng times as	s. well	as other parameters	
		ess	ential for tra	in traffic (bra	aking p	percentages, m	naximal spee	eds,	maximal permissible	
		wei	ght of trains,	etc.), and wil	l be ab	le to independ	lently solve	prob	lems of train traction	
Course aims and	d	of c	lifferent rail ι	indertakings.						
learning outcon	n es 3.	Bas	ed on the lea	rned principle	es of tra	ain traction ma	anagement,	afte	r graduation students	
		will	be able to	manage trai	n tract	tion, optimize	the work	of Ic	ocomotives, optimize	
		per	sonnel turno	vers and define	ne requ	uired locomotiv	ve fleet. Als	o, tr	ney will be trained to	
	4	By	anniving kno	wledge of pr	incinles	s of traction t	heory and r	mana	accement graduated	
	٦.	stu	dents will be	trained to ma	ke prac	tical decisions	about tractio	on p	rocesses.	
	lt is	s nece	essary for stu	dents to have	examir	ned (and possib	ply passed ex	xams	s) from general	
Prerequisites	cou	ırses,	, in particular	physics, orgai	nizatior	n of work, mana	agement. Als	so, a	ttendance to classes	
	is n	nanda	atory.							
Teaching metho	ods Leo	tures	s, auditory an	d numerical e	xercises	s, consultation	S.			
	1.	Act	ive forces, ba	sic equations	of train	motion. Move	ement resist	ance	S	
	2.	Ath	esion of rail v	ehicles and ci	iteria f	or working poi	nts selection	1. "Tr	raction passport" and	
	3	pov	ver of the loc	omotive.	ctoricti	cs of difforents	vohiclo typo	c /1 /	colloquium)	
	4	Bra	king of the tr	ain and brakin	g diagr	ams	venicie type	5. (11	conoquium).	
	5.	Det	ermination o	f running diag	rams a	nd running tim	es. (II collo a	uiur	n).	
	6.	Eleo	ctric traction	dimensions. P	rocedu	res and metho	des for train	trac	, ction energy	
		con	sumption cal	culation.						
Course content	7.	Mo	delling the tra	action process	ses and	simulation of t	train tractior	n. (II I	l colloquium).	
	8.	Opt	timizing of the	e electric trair	tractic	on system.				
	9.	Bas	ic tasks of tra	ction departn	nent. Lo	ocomotive rolli	ng stock. (IV	coll	oquium).	
	10.	10. Indicators of running and utilization of locomotive rolling stock.								
	11.	Ar	omplex comp	lete turnover	Section	n turnover Ciri	cular runnin	ann). gs.		
	13.	Pro	duction of lo	comotive turn	us. (VI	colloquium).				
	14.	A tr	action person	nnel. Personn	el turno	over.				
	15.	Ma	intenance of	railway vehicl	es. Trac	ction costs. (VII	colloquium	ı).		
				Text	book (s)				
Autho	r/s		Na	me of publica	tion, p	ublisher	Year	r	Pages (from-to)	
Dinić	D.		Vuča vozo	va (Train Trac	tion), Ž	ELNID, Belgrad	e 1983	3		

Mandić D.		Organizacija vuče vozova (Train Traction Organization), Faculty of Traffic and Transport Engineering, Belgrade	2002	2		
Mandić D., Jovano Bugarinović N	vić P., 1.	Zbirka zadataka iz teorije vuče vozova (Workbook of Train Traction Theory), Faculty of Traffic and Transport Engineering, Belgrade	2013	3		
Mandić D., Bugarino Jovanović P.	ović M.,	Zbirka zadataka iz organizacije vuče vozova (Workbook of Train Traction Organization), Faculty of Traffic and Transport Engineering, Belgrade	2015	5		
		Additional readings				
Author/s Name of publication, editor					Pag	es (from-to)
Mandić D., Jovanc	ović P.	<i>Teorija vuče vozova – praktikum (Train Traction Theory – practicum),</i> Faculty of Traffic and Transport Engineering, Belgrade	2017	7		
		Assesment methods	•	Poi	nts	Percentage
	pre-exa	m obligations				
		attendance to lectures and exe	ercises		10	10%
Evaluation criteria		positivly evaluated project assign	ments	2	x10	20%
		assed all tests and passed all colloquiums (numerica	l tests)	7	x10	70%
final ex		IM				I
		final exam (oral / w				
	TOTAL			-	100	100%
Applicable from	16.06.20	D21 - 175 Session of the Councile, Faculty of Transport	rt and Tr	affic	engine	ering

es y McToylog			UNIV	ERSITY OF	EAST S	ARAJEVO			2005	
	22		Faculty of	Transport a	and Tra	ffic Engineering	3		Softa Farmer Carling	
			:	Study prog	ram: T	raffic				
				Profile: Ra	ilway ti	raffic	udu (AOEOJ	
Course title	•		RAII WAY SIG		ND SAI				OWFR PLANTS	
Department		Dep	artment for Trar	nsport Engi	ineerin	g – Faculty of T	raffic Engin	eerir	ng Doboj	
		<u> </u>				_	- 0			
C	Code		Cou	Course status Semester			ter	ECTS cree		
САФ11СЖС	7134466	,0330	со	mpulsory		VI			6.00	
Professor/s	Ph	D Ratk	o ĐURIČIĆ							
Associate/s	MS	c Vlac	limir MALČIĆ							
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semester)		Student workload coefficient S _o	
L	TE		LE	L		TE	LE		So	
3	3		0	3*15*1	.,4	2*15*1,4	0*15*1,4	-	1,4	
Total teach	ner workle	bad (h	ours, per semes	ter)		Total student	workload (h	ours	, per semester)	
3*1	.5 + 3*15	+ 0*15 =90 hours 3*15*1,4 + 3*15*1,4 + 0*15*1,4 = 126 hours								
	Dv	masta	Iotal workloa	d: 90 + 126	p = 216	nours per seme	ester			
	Ву	Knov	ws the complex	issues of t	n will c	a means for th). A regulation	n an	d provision of railway	
	۷.	traff	ic	135025 01 1	Connec		eregulation	i an		
	3.	Heh	ie. Jas a good know	ledge of m	odern	railway traffic i	nsurance sv	sten	15.	
. ·	. 4.	4. Has extensive knowledge in the field of railway signaling and safety devices and means of								
Course aims and	a	communication on the railway, which is the most important prerequisite for work on the								
learning outcom	nes	railw	/ay.							
	5.	Follo	ows world trend	s in this fie	ld and	is qualified to p	propose app	licat	ions in our country.	
	6.	Inde	pendently form	nulates, ar	nalyzes	and solves r	nultidiscipli	nary	problems of traffic	
		engi	neering with th	e possibili	ty of c	omplex traffic	manageme	nt o	n electrified railways	
Droroquisitos	No	with	rational use of e	electricity 1	for tow	ing trains.				
Teaching meth		turos	auditory and n	imerical ex	orciso	consultations	•			
Teaching metric	1	Intro	duction Power	supply sys	tems fr	or electric tract	ion vehicles	:		
	2.	Cont	tact network. co	mposition	and ex	ecution, types	and equipm	ient:		
	3.	Elec	tric traction sub	stations;		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	and equipm	,		
	4.	Prot	ection and safet	y in high v	oltage	plants;				
	7.	Load	d of the contact	network in	the fu	nction of traffic	: intensity;			
	8.	Class	sification of raily	way traffic	manag	ement systems	;			
	9.	Secu	iring switches ar	nd slides. T	echnica	al means for co	ntrolling the	e oco	cupancy of tracks and	
.	10	swite	ches;							
Course content	10	. Rail	current circuit; S	signals and	İsignali	ng technique.	Cellular sign	aling	g and safety devices;	
	11	(I CO	iloquium) ilation and prov	ision of tra	offic at t	the inter-statio	n distance:			
	12	Regi	ulation and prov	ision of tra	offic at i	road crossings	in uistance,			
	13	13. Automation of railway traffic management:								
	14	14. Dispatch centralization systems - telecommand. Train transmission systems - hitchhiking								
		devi	ces;	,					, 0	
	15	. Auto	omatic train guid	lance. Auto	omatic	train protectio	n.			
	16	16. Security analysis (II colloquium)								
				Textb	ook (s)					
Autho	or/s		Name	of publica	tion, p	ublisher	Year	r	Pages (from-to)	
	• /		Modeling	and microc	comput	er control of		_		
Zoran Avr	amović		marsh -	alling yard.	s (moni ada C-	ograph), rhia	1995	995		
Zaran Au	amouiá		Ze	of rolay at	uue, se	ignaling	2011	-		
Zoran AVr	amovic		Design	or relay st	ation s	igi idililig-	2015	כ		

		of Security Devices, Faculty of Transport,				
		Communications and Logistics, Berane,				
		Montenegro				
		Additional readings				
Author/s		Name of publication, editor	Yea	r	Page	es (from-to)
		Assesment methods		Poin	its	Percentage
	pre-exai	n obligations				
		Presence during le	ctures	1	LO	10%
Evaluation critoria		Positively evaluated seminar	y work	2	20	20%
		Passed all colloc	luiums	2x	(20	40%
	final exa	m				
		final exam (oral / w	ritten)	3	30	30%
	TOTAL			10	00	100%
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpor	rt and Tr	raffic e	engine	ering

			UNIV Faculty of			AUED					
Course title			reycle	INITE		RT					
Department		Depa	artment for Trai	nsport Engineerin	g – Faculty of Traffi	c Enginee	ring D	oboi			
	Code		Co	urse status	Semester		ECTS credits				
САФ11СЖ	072036	65,0220		optional	VI			5.00			
Professor/s	Р	hD Slob	odan ZEČEVIĆ								
Associates/s	Р	hD Snež	ana TADIĆ								
	Weekly	y hours		Individual s	tudent hours (per s	emester)		Student workload coefficient S₀			
L	Т	E	LE	L	TE	LE		So			
2	ź	2	0	2*15*1,4	2*15*1,4	0*15*1	1,4	1,4			
Total tead	cher wor	rkload (h	iours, per seme	ster)	Total student worl	kload (hou	urs, pe	er semester)			
2*	15 + 2*:	15 + 0*1	.5 = 60 hours		2*15*1,4 + 2*	15*1,4 + (0*15*	[•] 1,4 = 84			
Course aims a learning outcomes	ind	1. Reco parti 2. Defin disac 3. Comp 4. Asses	 Recognizes and defines the role and place of intermodal transport for different participants and users; Defines the structure of the intermodal system and determines the advantages and disadvantages of each element of the system in a particular intermodal transport chain; Compare classical and intermodal transport chain technologies; 								
Prerequisites	N	lo specia	al conditions								
Teaching methods	le	ectures,	tutorials, case s	tudies, debate cla	isses						
Course conter	1 2 3 4 5 6 7 7 1 1 1 1 1 1 1 1	 Intermodalism, definition and delimitation of basic concepts in intermodal transport. Intermodal Transport (IT) system. Intermodal transport units (types, modular chain alignment). Optimization models of packaging, enlargement of intermodal units in the transport chai Means of transport in IT. Standardization and codification in IT. Terminals and network of intermodal transport terminals. Transport and traffic infrastructure, organization and telematics systems in IT (Colloquiu I). Container transport system technologies. Container terminals. Vehicle-to-vehicle transport technologies. Vehicle-vehicle road-rail transport technologies. Vehicle-vehicle rail-road transport technologies. Technologies of land-river-sea and river-sea transport vehicle-vehicle. Methodology of intermodal transport chain optimization. 									
		Textbook (s)									
Auth	nor/s		Nam	e of publication,	publisher	Year	r	Pages (from-to)			
Zečević S	., Tadić S	adić S. Intermodalni transport, autorizovana skripta 2016									
				Additional rea	dings						
Auth	nor/s		Nam	e of publication,	publisher	Year	r	Pages (from-to)			
Low	ve D.		Intermo	dal freight transp	ort, Elsevier	2005	5				
Priemus H., Konir	Nijkamı ngs R.	p P.,	The Future Operations, D	of Intermodal Free esign and Policy,	eight Transport: Edward Elgar Pub.	2008	3				

Kim K.H., Günthe	er H.O.	Container Terminals and Cargo Systems: Design,					
		Operations Management, and Logistics Control	07				
		Issues, Springer					
		Assesment methods		Points	;	Percentage	
	Preexam	nation obligations					
		attendance during lectures/ex	ercise	5		5%	
		activity during c	5		5%		
Ohlisstians		20		20%			
ovaluations,		colloq	20		20%		
critoria	Colloqium 2 20 20%						
cinteria		Students who pass the colloquia are relea					
				writ	ten p	oart, final exam	
	Final exa	mination					
		Oral examir	nation	30		30%	
	Overall			100)	100%	
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transpor	t and Ti	raffic en	gine	ering	

Course title			UNIV Faculty of I cycle	Transport a Study prog Profile: Ra	EAST S and Tra gram: T ilway t	ARAJEVO ffic Engineerin raffic raffic III year of stu SHIPPING	g Jdy	Clark	A060J	
Department		Departm	ent for Tran	nsport Eng	ineerin	g – Faculty of 1 I	raffic Engin	ieering Doboj		
	Code		Cou	urse status	;	Seme	ster	ECTS credits		
САФ11СЖ	07204965	,0220	со	mpulsory		VI			5,00	
Professor/s										
Associate/s										
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester)) Stud	dent workload oefficient So	
L	TE		LE	L		TE	LE		So	
2	2		0							
Total teac X'	acher workload (hours, per semester) $X^*15 + Y^*15 + Z^*15 = W$ hours $X^*15 + Y^*15 + Z^*15 = W$ hours $X^*15 + Y^*15 + Z^*15$								semester) nours	
		Total v	vorkload: V	V+T=U _{opt} =	+ =	hours per s	emester			
Course aims an	d									
learning outcom	mes									
Prerequisites										
Teaching meth	ods									
Course content	t									
0th	/ -		N	Text	000k (s)		No.		(fuere te)	
Autho	or/s		Name	of publica	ition, p	ublisher	Yea	r Pa	iges (from-to)	
				Addition	al read	ings				
Autho	or/s		Nam	e of publi	cation,	editor	Yea	r Pa	ges (from-to)	
			Α	ssesment	method	ls		Points	Percentage	
Evaluation crite	eria									
								I		
Web sources										
Applicable from	n									

			UNIV Faculty of	ERSITY OF Transport a Study prog Profile: Ra	EAST S and Tra and Tra and Tra and Tra and Tra and Tra and Tra and Tra	ARAJEVO ffic Engineering raffic raffic	5		South Million Contraction			
1975 4589 30 M	III .		I cycle	· • , · • · · · ·		III year of stu	ıdy		40EOJ			
Course title			•	MAINTEN	ANCE C	OF RAILWAY IN	IFRASTRUCT	TURE				
Department		Depart	ment for Trar	nsport Eng	ineerin	g – Faculty of T	raffic Engine	ieering Doboj				
	Code		Coι	ırse status		Semes	ter		ECTS credits			
САФ11СЖ	07234365	,0220	(optional		VI			5,00			
Professor/s	Ph	D Miloš ľ	VIĆ									
Associate/s	M	Sc Vladim	hir MALČIĆ									
	Weekly I	nours		Individ	ual stu	dent hours (pe	r semester))	Student workload coefficient S _o			
L	TE		LE L TE LE So									
2	2		0	2*15*1	.,5	2*15*1,5	0*15*1,5	,	1,5			
Total teac	her workl	oad (hou	rs, per semes	ter)		Total student v	workload (h	ours	, per semester)			
2*3	15 + 2*15	+ 0*15 =	= 60 hours	T 11 C		2*15*1,5 + 2	*15*1,5 + 0 [*]	*15*	1,5 =90 hours			
	D	lotal v	workload: W+	$I=U_{opt}=6$	0 + 90 =	150 hours per	semester					
	Ву	masterin	ng this course	students v	vill be a	ble to:	r rogulating		Leoguring railway			
	L 1	traffic	ig the comple	x problem	ortecr	inical means to	rregulating	g anu	i securing railway			
Course aims an	d 2	Knowir	ng modern rai	Itransport	svsten	ıs						
learning outco	mes 3	. It posse	esses wide kn	owledge in	the fie	ld of railway si	gnaling and	l safe	etv devices and			
		means	of connection	n on the ra	ilway, v	which is the mo	ost importan	nt pr	econdition for			
		operati	ion on the rai	lway.	• •		•	•				
	4	. Follow	the world tre	nds in this	area ai	nd is qualified t	o propose a	appli	cations with us.			
	Ad	mission r	reguirements:	previous	y atten	ded courses: R	ailway track	кsиl	Railway stations and			
	no	des.										
	Th	e conditio	ons for passin	g the cour	se are:							
Prerequisites	1	. regular	attendance (lectures a	nd exer	cises),						
	2	. comple	eted and defe	nded elabo	orate,							
	3	. all collo	oquiums passo	ed,								
Tooching moth		. all test	passed.	moutatio		cisos consulta	tions					
reaching meth		Introdu		Πρατατιοι	iai exer	cises, consulta	lions					
		. Introduc Genera	al concents an	d sattings	for mai	ntenance of ra	ilway infras	truct	turo			
	3	Classifi	cation of mai	ntenance a	activitie	s	iiway iiiias	nuc	ture			
	4	. Metho	ds for realizin	g mainten	ance ac	tivities						
	5	. Mainte	enance machi	nery								
	6	. Device:	s, equipment	and mean	s of trai	nsport						
	7	. Measu	rement techn	ique (1st	colloqu	ium)						
Course content	t 8	. Track n	naintenance t	rains								
	9	. Efficier	nt maintenand	ce of the ra	ilway ii	nfrastructure						
	1	10. Track reconstruction										
	1	11. Regeneration of the track material										
	1	2. Organi:	zation and te	cnnology o	r maint	enance activiti	es					
		3. IVIdINTE 4. Rail tra	ffic organizat	in speed IIr ion under	ies mainter	nance activition	-					
	1	5 Plannir	ng maintanac	activities	(2 nd co		2					
			<u></u>	Texth	ook (s)							
Autho	or/s		Name	of publica	tion. n	ublisher	Year	r	Pages (from-to)			
	.,.	F	Railwav tracks	, Faculty o	of Trans	port and Traffi	c					
lvić	M.		E	ngineering	, Belgra	de	2005	þ				
Miloše	vić B.	R	ailway track r	naintenan	<i>ce,</i> Rail	way high schoo	ol, 1980)				

		Belgrade						
Tomčić M.		Railway track maintenance, Faculty of Civil Engineering, Belgrade	3					
	Additional readings							
Author/s		Name of publication, editor	Yea	r Page		es (from-to)		
lvić M.		Railway track maintenance, Lectures in the form of PP presentations						
Assesment methods				Point	s	Percentage		
	Preexam	nination obligations						
	The student's activity during lectures					5%		
		Elaborate			5	35%		
Evaluation criteria		Tests			0	10%		
		Colloc	quiums	30	0	30%		
	Final exa	amination						
		Oral exami	nation	20	0	20%		
		10	0	100%				
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Ti	affic e	ngine	ering		

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic							
Course title	·		i cycle	MAIN			AY WAGON	<u> </u>		
Department		Depa	rtment for Tran	sport Eng	ineering	g – Faculty of 1	Fraffic Engin	eering [Dobo)i
(Code	<u> </u>	Cou	Course status Semeste			ster		ECTS	credits
САФ11СЖС	7207065	,0220	C	ptional		VI			ŗ	5,00
Professor/s	Ph	D Ratko	D ÐURIČIĆ							
Associate/s	MS	Sc Vladi	imir MALČIĆ							
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester	Student workload coefficient So		
L	TE		LE	L		TE	LE			So
2	2		0	2*15*1	.,5	2*15*1,5	2*15*1,5	5		1,5
Total teach	ner workl .5 + 2*15	oad (hc + 0*15	ours, per semes 5 = 60 hours	ter)		Total student 2*15*1,5 + 2	workload (h *15*1,5 + 0	ours, pe *15*1,5	er se 5 = 90	mester)) hours
		Tota	l workload: W+	$T=U_{opt} = 60$	0 + 90 =	150 hours pe	r semester			
Course aims an learning outcon	d pro nes to of	 familiarize students with basic concepts, characteristics and procedures in maintenace roces of railway vehicles, types, cycles and maintenance periods, with particular refference modern maintenace methods and to enable them to apply knowledge in the maintenance f railway vehicle. 								
Prerequisites	Stu wo	Students are obliged to attend classes, attend practical exercises at the ŽRS, conduct seminar work take colloquiums and attend consultations								
Teaching metho	ods Leo	ctures,	auditory and co	mputation	nal exer	cises, consulta	ations.			
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10 11 11 11 12 14	 General concept and basic principles of organization of maintenance of railway vehicles Types of maintenance of railway vehicles Determination of cycles and deadlines for regular maintenance of railway vehicles Division of work on maintenance work Modifications and reconstructions of vehicles Technical documentation for vehicle maintenance Maintenance workshops (I colloquium) Training of staff for maintenance of railway vehicles Maintenance of braking devices for railway vehicles Maintenance of towing vehicles, diesel and electric locomotives Maintenance of vehicles for railway purposes - testing wheels, special-purpose vehicles, railway vehicles, special vehicles Vehicle procedures after an emergency Modern maintenance of railway vehicles 								vay vehicles ehicles ose vehicles,
0th a			Nama	Textb	book (s)	. blick ov	Vee	-	Dam	
	n/s Duričić P		Maintonana	of railwo	wyphic		rea		Page	es (irom-to)
Malčić	δ., V.	.,	Tra	ffic Engine	ering D	oboj	201	4	W	hole Book
	buricic, R ^S abrić N	ricic, K., Iviaintenance of railway venicles - updated 2021 Whole Book								hole Book
			eunon, raca	Addition	al read	ings				
Autho	r/s		Nam	e of public	ration	editor	Vea	r	Page	es (from-to)
Autio			Nalli		cation,		Tea	•	ag	
						•				
Fuelwetter wit			As	ssesment	method	15		Points	5	Percentage
Evaluation crite		examir	nation obligatio	TIS .		Droconce dunt	ng lootuuro -	40		100/
						riesence aurii	ing lectures	10		10%

	Seminary work	10	10%
	Colloquium I and II	2x30	60%
	Final examination		
	Oral examination	20	20%
	Total	100	100%
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic						AOEDJ				
Course title			FREI	GHT TRAN	SPORT	TECHNOLOGY	AND ORGAN	NIZATION			
Department	Departm	ent for Trar	nsport Eng	ineerin	g – Faculty of 1	Traffic Engine	ering Doboj				
Co	ode		Course status			Semester		ECTS credits			
САФ11СЖ07	7106276,	0321	compulsory VII					6.00			
Professor/s	PhD) Branislav	Branislav BOŠKOVIĆ								
Associate/s	MS	c Vladimir	MALCIC								
V	Veekly h	ours		Individ	ual stu	dent hours (pe	er semester)	coefficient So	d		
L	TE		LE			TE	LE	So			
3 Total toach	2	ad (hours	1	3*15*1 +or\	_,4	2*15*1,4	1*15*1,4	1,4			
3*15	5 + 2*15	4 1*15 = 7	, per serries 5 hours	ler)		3*15*1 4 + 2*	*15*1 4 + 1*1	15*1.4 = 105 hours			
	. 2 13	Total wor	rkload: W+1	Γ=U _{opt} = 75	5 + 105	= 180 hours pe	er semester	10 1)1 100 110010			
Course aims and learning outcomesUpon the successful completion of the course each student will::1.Know the basic characteristics and role of the railway freight transport system;2.Describe and understand the current systems and processes of the railway freight transport for wagon-load and parcel consignments and define technology process the transport implementation;3.Analyze and design technology to processing shipments and freight wagons in the loading/unloading stations, including administrative procedures;4.Quickly engage into a very complex process, organization and management of the railway freight transport.						asport system; ne railway freight chnology processes for tht wagons in the anagement of the	r				
Prerequisites	No	conditions	5.	-							
Teaching metho	ds Lec	tures ex-ca ding/unloa	athedra, exo Iding termin	ercises, on nal, case st	e study :udies	project work,	railway statio	on visit or			
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.	 Basic concepts of the railway freight transport: terminology, the system and its features. Technology of work with freight wagons, commodity and its documents in the loading/unloading terminals Industrial branches: the concept, significance and structure of commodity and problems. Organization of railway work in industrial complexes and ports Technology of forming trains in marshaling yards (pick-up trains, block trains) Management of wagon streams on network Technology and models of unit trains on the network New technological concepts in the railway freight transport. Technology of intermodal transport of goods Transport technology of exceptional consignments and dangerous goods. Modern tariffs theory, tariff systems and tariff principles in railway freight transport. Irain costs in freight transport 									
Author	·/c		Name	of publica	tion n	ublisher	Vear	Pages (from-to))		
Boškovid	, з	Writ of Pl	ten materia	als and pre	esentati	ons in the form	n 2015		,		
Čičak M., Ves	sković S.	C	Organizatior Transport ar	n of Railwa nd Traffic e	y Traffi enginee	c II, Faculty of ring, Belgrade	2006	Čičak M., Veskov S.	νić		
				Addition	al read	ings					
Author	/s		Nam	e of publi	cation,	editor	Year	Pages (from-to))		

	Assesment methods	Points	Percentage
	Pre-exam obligation		
	Presence during lectures	6	6%
	Positively evaluated project work	10	10%
Evaluation criteria	Solved all colloquiums (theory)	24	24%
	Solved all colloquiums (tasks)		
	Final exam		
	Final exam(verbally)	60	60%
	In total	100	100%
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	raffic engine	ering

ST Y WCTONHO			UNIV	ERSITY OF EAST	SARAJEVO			2005		
			Faculty of	Transport and Tr	affic Engineerin	g		Sarahan Cart		
YÜC			2							
				Profile: Railway	traffic			40E0J		
Course title			l cycle		IV year of st					
Course title		Donortr	PASSENGER TRANSPORT TEHNOLOGY AND ORGANIZATION							
Department		Departr	ment for Tran	isport Engineeri	ng – Faculty of I	Framic Engine	eerir	נסמסע או		
	Code		Cou	urse status	Seme	ster		ECTS credits		
САФ11СЖ(07106376	,0311	СО	mpulsory	VII			6,00		
Professor/s	Phi	Ratko ĐURICIC								
Associate/s	INIS	c vladimi								
	Weekly h	ours		Individual st	udent hours (pe	er semester)		coefficient So		
L	TE		LE	L	TE	LE		So		
3	1		1	3*15*1,4=63	1*15*1,4=2 1	1*15*1,4= 1	2	1,4		
Total teac	her worklo	rkload (hours, per semester) Total student workload						, per semester)		
3*1	L5 + 1*15	+ 1*15 =	75 hours		3*15*1,4 + 2*	*15*1,4 +0*:	15*1	.,4 = 105 hours		
		Total w	orkload: W+	T=U _{opt} = 75 + 105	5 = 180 hours pe	er semester				
	1.	The stu	dent will be a	able to understa	nd the basic prin	nciples of pa	ssen	ger transport		
		technol	ogy in rail tra	affic. Recognizing	g the basic quan	titative and	qual	itative indicators of		
		work in	passenger ra	ail transport, the	y will be able to	understand	the	cause-effect links		
		betwee	n the perform	mance of passen	ger traffic and t	he results th	at a	re achieved.		
Course aims an	d 2.	It WIII D	that are busy in passenger traffic.							
learning outcom	mes 2	Students will be trained in ordering trains and tracking their execution. It will be trained								
	5.	to calculate the cost of the train and create a tariff for passenger transport.								
	4	It will be able to operate operational services for the carriage of passengers on the								
		railways, and that, after gaining practical experience on the railways, they manage								
		individu	ual sectors or	railway organiza	ations.		- 1 - 1	, ,		
Prerequisites	No	ne.								
Teaching meth	ods Leo	tures, au	ditory, calcul	lus and laborato	ry exercises, cor	nsultations				
	1	Basics o	of nassenger	traffic organizati	on					
	2.	Basics o	of passenger	transport planni	ng					
	3.	Transpo	ort offer. Typ	es and character	istics of passen	ger cars				
	4.	Technic	al-exploitatio	on characteristic	s of electro-mot	tor and diese	el-mo	otor trains		
	5.	Use of p	bassenger ca	rs in domestic ar	nd international	traffic (I col	loqu	ium)		
	6.	Passeng	ger transport	systems						
	7.	Technic	echnical standards of work in passenger traffic							
Course content	: 8.	Travel f	lows and une	evenness						
	9.	Techno	logy of work	of passenger sta	tions					
	10.	Timetak	ole for passe	nger trains (II co	lloquium)					
	11.	Organiz	ation of rem	ote passenger tr	affic					
	12.	2. Organization of suburban passenger traffic								
	13.	Quality of service in the carriage of passengers								
	14.	Tariffs i	n passenger	transport (III col	loquium)					
				Textbook (s)					
Autho	or/s		Name	of publication,	publisher	Year	r	Pages (from-to)		
Čičak M., V	esković S.		Organization -	n of Railway Traf	fic II, Faculty of	2006	5			
		-	Transport ar	nd Traffic engine	ering, Belgrade					
Čičak M., V	esković S.	0	rganization o solve	of Kallway Traffi ed tasks,Želnid,B	c II,workbooko c elgrade	^{DJ} 1999)			

		Additional readings							
Author/s		Name of publication, editor	r	Pages (from-to)					
		Assesment methods		Points	Percentage				
	Pre-exam obligation								
		Presence during le	ectures	10	10%				
		Positively evaluated project	20	20%					
Evaluation criteria		Solved all colloquiums	20	20%					
		Solved all colloquiums(t	20	20%					
	Final exam								
		Final exam(ve	rbally)	30	30%				
	In total 100								
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	affic en	gineering				

ST VICTOWING				UNIV	ERSITY OF	EAST	SARAJEVO			2005
			F	aculty of	Transport	and Tra	ffic Engineerin	g		Straman Contraction
Yüc	- + ₂			•	Study prog	ram: T	raffic			
]				Profile: Ra	ilway t	raffic			AOEOJ
Course title				I cycle	P	<u></u>				and the second second second
Department		Der	artme	nt for Tra	nsport Eng	ineerin	g – Faculty of T	raffic Engin	eerir	ng Dohoi
Department		Dep	Jarenie							15 2000]
c	ode			Course status			Semester			ECTS credits
САФ11СЖ0	7106676	,0311		compulsory VII					6.00	
Professor/s	Ph	D Rat	ko Đur	ičić						
Associate/s	MS	c San	ja SIM	lĆ						
	Weekly h	ours			Individ	ual stu	dent hours (pe	er semester)		Student workload
									'	coefficient S _o
	TE	TE			L	1.4				S ₀
3 Total teach	1 or workl	and (k	ourc	1	$3^{15^{1}}$,14	1*15*1,14	1*15*1,14	4	1,14
3*1	5 + 1*15	Jau (I + 1*	10015, 15 =75	hours	ster)	2	*15*1 14 + 1*1	WOLKIOAU (II 15*1 14 + 1*	0015 *15*	1 14 = 85 5 hours
51	.5 • 1 15	• 1 •	Total	workload	: 75 + 85.5	= 160.	5 hours per ser	nester	15	1,14 - 05,5 110013
	1.	Bv r	naster	ing this co	urse. stud	ents wi	Il understand t	he basic prir	laion	es of organization of
		, rail	transp	ort. Recog	nizing the	basic o	uantitative and	d qualitative	indi	icators of work in rail
		trar	nsport,	they will	be able to	unders	tand the cause	-effect links	of tr	raffic performance
		and	the re	sults achi	eved.					
Course aims and	d 2.	Afte	er grad	uation, st	udents wil	l be abl	e to analyze, ha	armonize an	id op	otimize the
learning outcom	nes	ope	ration	s of railwa	y subsyste	ms.				its' souther was a set
	3.	Stu	uents v	will be trai	ned to cor	Istruct	o to manago th	and to mon	ntor no di	its performance.
	4.	one	ration	al services	on the rai	lwav a	s well as to ma	nage work of ti	of ce	rtain departments or
		rail	way en	iterprises,	after they	acquir	e some practica	al experienc	e.	
	lt is	s nece	essary	for studer	its to have	examir	ned (and possib	ly passed ex	xams	s) from general
Prerequisites	cou	ourses, in particular physics, organization of work, management. Also, attendance to classes								
	is r	nanda	atory.							
Teaching metho	ods Leo	tures	, audit	ory and n	umerical e	xercise	s, consultations	5.		
	1.	Bas	ic conc	epts and prime	orinciples (of railw	ay transport or	ganization.		
	2.	Bas	ic prin	cipies and	indicators	of ope	rations in railw	ay transport	t. Kola	anning (I
	0.		oauiui	n).	agon now	s oigai	iization, timeta		кріс	
	4.	Qua	antitati	ive and gu	alitative ir	dicator	s of the operat	ion and util	izatio	on of freight and
		pas	senger	wagons.			·			5
	5.	Star	ndardi	zation of t	he activitie	es.				
	6.	Wa	gon an	d locomot	ive rolling	stocks.	(II colloquium).		
Course content	7.	Har	moniz	ation of ce	ertain indic	ators a	nd railway subs	systems.		
	0.		ortand	on system:	s on railwa	YS. tho tim	otable (III coll	oquium)		
	J.) Bas	ic elen	e and ma	indicators	of time	itable granh	oquium).		
	11	. Tim	ing an	d securing	the neces	sary da	ta for timetable	e constructi	on.	
	12	. Ens	uring t	imetable i	mplement	ation.				
	13	13. The concept of railway line capacity and measurements for its' increase. (IV colloquiu								ase. (IV colloquium).
	14. Operational service and dispatching of railway traffic.									
	15	o. Ope	eration	al work pl	anning. Ex	ecutior	of technical st	andards. (V	coll	oquium).
A 41				News	Text	book (s) uhliokar	N-		Deges (from to)
Autho	r/S			Organiz		ition, p		Yea	ſ	Pages (from-to)
Fror	S.		IC)raanizatio	on of Railw	av Traf	fic). Faculty of	1989	3	
			Tr	affic and T	ransport I	Inginee	ring, Belgrade	1500	-	

Kovačević P.		Eksploatacija železnica knjiga I (Exploitation of Railways – book I), ŽELNID, Beograd	1988	3					
Kovačević P.		Eksploatacija železnica knjiga II (Exploitation of Railways – book I), ŽELNID, Beograd	3						
		Additional readings							
Author/s		Name of publication, editor	Yea	r Pa	ages (from-to)				
Hansen I., Pach	ıl J.	<i>Railway Timetable & Traffic,</i> EURailpress, Hamburg, Germany	2008	3					
Eror S.		Optimizacija razvoja kapaciteta železničkih pruga (Optimization of capacity development of the railway lines), ŽELNID, Beograd	1982	2					
		Assesment methods	Points	Percentage					
	pre-exam obligations								
		attendance to lectures and ex-	ercises	10	10%				
Evaluation critoria		positivly evaluated project assign	15	15%					
	p	assed all tests and passed all colloquiums (numerica	l tests)	5x15	75%				
	final exam								
		final exam (oral / w	ritten)						
	TOTAL			100	100%				
Annicable from	10000	175 Cossion of the Councils Foculty of Transpo	t and T	offic ongi	nooring				

		UNIV aculty of	ng	AGED L							
4583 30 10			l cycle			IV year of st	udy	dogo?			
Course title				REGULAT	ORY SYS	STEM OF RAIL	WAY TRANSI	PORT			
Department		Departme	nt for Tra	nsport Eng	ineerin	g – Faculty of	Traffic Engine	eering Doboj			
с	ode		Course status			Seme	ster	ECTS credits			
САФ11СЖО	7106775,	0220	СС	mpulsory		VI		5.00			
Professor/s	Phi) Branislav	BOŠKOVIĆ								
Associate/s	Phi	PhD Branislav BOSKOVIC									
, , , , , , , , , , , , , , , , , , ,	Weekly h	ours		Individ	ual stu	dent hours (p	er semester)	Student workload coefficient So			
L	TE		LE	L		TE	LE	So			
2	2		0	2*15*1	L,5	2*15*1,5	0*15*1,5	1,5			
Total teach	er worklo	bad (hours,	per semes	ster)		Total student	workload (ho	ours, per semester)			
2*1	5 + 2*15	+0*15 = 60) hours			2*15*1,5 + 2	2*15*1,5 + 0*	15*1,5 = 90 hours			
		Total wo	kload: W-	$T=U_{opt} = 60$	0 + 90 =	= 150 hours pe	er semester				
Course aims and learning outcomesOutcomesOutcomesCourse aims and learning outcomes-Describe the of the rail set regulating the railway trait regulations; -Course aims and learning outcomes-Recognize the procedure to 						imentals of the regulatory system of the EU and Serbia. be on institutions and regulations as well as the content and tions. on of the course each student will be able to: ail sector in terms of economic and institutions arrangement; pret the meaning of the legislation (laws and bylaws) that is y transport; dure for the preparation, adoption and amendment the ional and local regulations for particulary aspects of the railways; onal inter-governmental and other organizations and their					
		 Describe the procedures for processing the request for allocation of infrastructure capacity; Compare and distinguish between regulatory systems in the railway sector. 									
Prerequisites	NO										
Teaching metho	ds Lec	tures ex-ca	thedra, ex	ercises, se	minar tl	hat is devoted	to analysis o	f laws and by-laws,			
	inte	eractive wo	rkshops, c	ase studies	s, team	presentations					
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14.	Content a New Euro Introducti Basic cond instrumer Structure Legislative The institu Licenses a The alloca The contro The Public Internatio Duties and Internatio	nd basic co pean Tran on in the r septs of re ts; of the EU acts of EU acts of EU ations of th nd Certific tion of rai acts betwe service O nal source d responsi nal railway	oncepts of sport Syste railway reg gulation: la legislative; J; ne EU and S cates for ra lway infras een the sta obligations es of law or bilities of R y organizat	transpo m ulatory aws, by- Serbia i ilway o tructur te and i (PSO); n rail tra tailway ions;	ort policy; system. -laws and othe n the railway s perators and i e capacity and infrastructure ansport; undertakings a	er legislative a sector (I collo nfrastructure I supporting o managers an and rail trans	and regulatory oquium); e managers; contracts; id transport operators; port customers;			
	13.	,ii conoqu		Text	oook (s)						

Author/s		Name of publication, publisher	Yea	ar Pag		es (from-to)			
		REGULATORY SYSTEM OF RAILWAY TRANSPORT,							
Bošković B.		Faculty of Transport and Traffic engineering,	2014	4					
		Belgrade, CD edition							
Author/s		Name of publication, editor	Yea	r	Pag	es (from-to)			
		Assesment methods		Poi	nts	Percentage			
	Pre-exam obligation								
		Presence during le		6	6%				
Evoluction criteria		Positively evaluated project		10	10%				
Evaluation criteria		Solved all colloc		24	24%				
	Final exam								
		Final exam(ve		60	60%				
	In total			• •	100	100%			
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Tr	raffic	engine	ering			

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic					g	Software and the			
				Profile: Ra	ilway ti	raffic			AOEOJ	
Course title			l cycle	MO		IV year of st	udy			
Course title		Denartm	ant for Trai	IVIU	ineering	TIN KAILWAY I	raffic Engin	oorin	ng Doboi	
Department		Departin						ceriii		
Coo	de		Course status		Seme	ster		ECTS credits		
САФ11СЖ071	120577,	0330	compulsory			VII			7,00	
Professor/s	Ph) Predrag J								
Associate/s	MS	c Vladimir	MALCIC							
W	eekly h	ours	Individual student hours			dent hours (pe	er semester)		coefficient So	
L	TE		LE	L		TE	LE		So	
3	3		0	3*15*1	1,4	3*15*1,4	0*15*1,4		1,73	
Total teacher 3*15 -	r worklo + 3*15 ·	bad (hours, + 0*15 = 9	per semes 0 hours	ster)	3*	Total student 15*1,73 + 3*1	workload (h 5*1,73 + 0*:	ours, 15*1	, per semester) .,73 = 155,7 hours	
	T	otal work	oad: W+T=	U _{opt} = 90 +	155,7 =	= 245,7 hours	per semeste	er		
Course aims and learning outcome	Basic aim of the subject is to enable students to apply different models for railway transp and traffic optimization of organization, technology, and capacity. After the course each student should be able to understand and describe basic methods for solving the probler railway organization and technology and to apply specific optimization model. Also, stude should be able to understand and use specific software applications related to operation. research and statistics. The best students will be able to define a problem and solve it by							or railway transport he course each ving the problems of odel. Also, student ed to operations n and solve it by		
Droroquisitos		itemporary	software	tools and r	nethod	5.				
Prerequisites		irse involv	es the use (of compute	er annli	rations Stude	nts recognize	- and	define the	
Teaching method	s lab	blems, and oratory wo	solve their rk, there is	m by select a semestr	ted soft al assig	ware apps and nment where s	l tools. In ad students app	ditio oly se	n to computer and elected	
	1.	Generall	/ about Mc	deling						
Course content	2. 3. 4. 5. 6. 7. 8.	 Generally about Modeling Generally about Prediction and selecting factors, Methods and Models of Prediction Phase in process of prediction and application methods and models Optimization of Capacity Method "Monte Carlo" Problems of Capacity Allocation and Assignment I colloguium 								
	9.	. Basic in Decision Theory O Decision in Rick Condition								
	11	1. Multi-Cri 2. Example:	teria Decis s of MCDM	ion Making	g (MCDI	v I)				
	13	3. Methods	of multicri	iteria analy	/sis					
	14	4. Applicati	ons of Mul	ti-Criteria /	Analysis	in Railway Tra	ansport			
	15	5. <mark>II colloq</mark> ı	iium							
				Text	book (s)					
Author/	S		Name	of publica	ition, p	ublisher	Year	r	Pages (from-to)	
Mirko J. Čičak:		Moc žele: and	leling in rai 2ničkom sa Traffic eng	I traffic (M obraćaju), ineering ar	odelira Faculty nd ŽELN	nje u of Transport ID, Belgrade	2003	3	11-28; 31-75; 463- 502	
Čupić M., Rao Tun	nala V.N	A. appl	emporary ication (Sav	decision m vremeno o ition. FON	aking - dlučiva . 1997	methods and nje – metode i Belgrade	1997	7	1-57; 271-288	
			,, in cu	Addition	al read	ings	I			

Author/s		Name of publication, editor	Year		Pages (from-to)				
		Assesment methods		Poin	its	Percentage			
	Pre-exam obligation								
		Presence during le	ectures	10		10%			
		Positively evaluated project	t work	2	20	20%			
Evaluation criteria		Solved all colloquiums	2	20	20%				
		Solved all colloquiums(t	2	20	20%				
	Final exam								
		Final exam(ve	erbally)	3	30	30%			
	In total		10	00	100%				
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and T	raffic e	engine	ering			

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic							AUEU		
Course title			I cycle			IV year of st	α α	ГС ГС			
Department	De	epartment for Transport Engineering – Faculty of Traffic Engineering Doboi									
Department		partine			neen						
Cod	e		Course status Semester			ster		ECTS	s credits		
САФ11СЖ0710	04586,032	0 compulsory VII				6,00					
Professor/s	PhD Pe	rica Go	jković								
Associate/s	MSc Sa	nja SIN							C4		
We	ekly hour	s		Individu	ual st	udent hours (p	er semester)	Stude	efficient So	
L	TE		LE	L		TE	LE			So	
3	2	0		3*15*1,4	=63	2*15*1,4=4 2	0*15*1,4=	=0		1,4	
Total teacher	workload	kload (hours, per semester) Total student wo						ours	, per se	mester)	
3*1	5 + 2*15 +	0*15	- = 75			3*15*1,4	+ 2*15*1,4+	0*1	5*1,4 =	105	
	Тс	tal wor	kload: W+	T=U _{opt} = 75	+ 105	5 = 180 hours pe	er semester				
Course aims and learning outcomes	 By mastering this course, students will be able to: 1. learn the basic concepts of organization, as well as types and organizational models enterprises; and comes 2. will be able to analyze the organization of large business systems, business and development policy and development factors; 3. independently organize and lead a meeting according to defined rules; 4. acquired knowledge in practice to apply and establish their own company as well as 						I models of and				
	giv	e instru	ictions to c	others how	to do) it.	ish then own		iipuiiy u		
Prerequisites	None.										
Teaching methods	lecture	s, audit	ory and co	omputation	al exe	ercises, consulta	ations				
Course content	1. Th 2. Ty 3. Or 4. Or 5. Or 6. Bu 7. Ch 8. Ba 9. Or 10. Or 11. Bu 12. Or 13. Or 14. Or 13. Or 15. II	 The concept and development of the organization Types of organizational structure Organizational models of the company Organizational models of transport companies Organizational models of transport companies Business and development policy Characteristic business factors (I colloquium) Basic methods and techniques for optimization Organizational culture Organization of business functions Business information systems Organization and management of investments Organization design. Organizational transformation of the company 									
Author/s			Namo	of publicat	UOK (sj publisher	Voa	r	Dag	es (from-to)	
Vešović B V Boic	vić I N	Org	anization	of transport	com	nanies Faculty	of	•	Fag		
Knežević. Li.	N.	Ti	ansport ar	nd Traffic Ei	ngine	ering, Belarade	2007	7.			
j.			1	Additiona	al rea	dings					
Author/s			Nam	ne of public	ation	, editor	Yea	r	Pag	es (from-to)	
Evaluation criteria	Preexa	minatio	A on obligatio	ssesment n ons	netho	ods		Poi	ints	Percentage	
	Presence during lectures	10	10%								
-----------------	---	--	------	--	--	--	--	--	--		
	Colloquium 1	10	10%								
	Colloquium 2	40	40%								
	passed colloquia (theory)	20	20%								
	Final examination										
	Oral examination	10	10%								
	Total	100	100%								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tu	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering									

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						2005			
				Profile: Ra	ilway ti	raffic			LOZOL	
Course title			l cycle			IV year of st	udy MENT			
Department		Depart	ment of T	ransport E	ngineer	ing - Faculty of	f Transport a	and Traff	c Engineering	
Code	9		Соц	urse status	;	Seme	ster	E	CTS credits	
САФ11СЖ0710	4685,022	20	М	andatory		VII			5,00	
Professor/s	Dr Đor	đe Popo	ović, assista	ant profess	sor					
Associate/s										
We	s	Individual student hours (per se			er semester)	Sti	coefficient So			
L	TE		LE	L		TE LE			S₀	
2 Tatal tasahari	2				U 		1,5			
10tai teacher \ 2*15 ⊥	vurki0ad 2*15 + ∩	(1100rs, *15 = 60	per semes Thours	ler)		2*15*1 5 + 2	workioad (h *15*1 5 ∓ ∩	ours, per *15*1 5 -	semester) 90 hours	
2 13 +	2 13 + 0	Tr	tal worklo	ad: 60+90	=150 br	Durs per semes	<u>13 1,3 + 0</u> ster	- , , , , , , , , , , , , , , , , , , ,	50 110013	
	By ma	stering t	his course	students v	vill be a	ble to:				
	1. Und	erstand	the requir	ements of	users c	of products and	services in	the conte	ext of the needs	
	impos	ed by th	e modern	market,		·				
Course aims and	2. use	and app	ly differen	t approach	nes, mo	dels and meth	ods of meas	urement	and quality	
learning outcomes	improv	/ement,								
	3. dev	elop and	l apply spe	cific mode	ls of qu	ality managem	nent in real	business	conditions,	
4. manage the resources more effectively in his / her authority in real business							s conditions,			
Ducucauticites	5. ach	5. achieves a more successful communication (internal and external).								
Teaching methods	Lectur		tory everci	sas samin	ar work	•				
Teaching methods	1 Hist	ory of a	uality man	agement d	levelon	ment				
	2. Qua	2. Quality and standardization. Model of quality management system								
	3. Und	3. Understanding quality. The term and definitions of quality								
	4. Qua	4. Qualitative, qualitative and quality management								
	5. Und	5. Understand the context of an organization. Deming's key to understanding the								
	organi	zanization								
	6. Qua	Luality management systems								
Course content		7. I colloquium 2. Total Quality Management (TOM) Medels of excellence								
	9 Inte	. Total Quality Management (TQM). Models of excellence								
	10. Qu	ality sys	tem accor	ding to ISC	9000:	2015				
	11. Pro	ocess mo	odel of the	organizati	on					
	12. Ris	k analys	is. Method	ls of risk as	ssessme	ent				
	13. Me	ethods a	nd tools of	f quality						
	14. Me	ethods o	f measurir	ng custome	er satisf	action				
	15. 11 0	olloquit	ım	Tauak	a a le (a)					
Author/s			Namo	of publica	tion n	uhlisher	Vea	r D	ages (from-to)	
Addition/S		1	pravlianie	kvalitetom	– integ	risani sistemi	ied	· · · ·		
Bobrek, M., Milel	kić, M.,	up	pravljanja p	orema ISO	9001:20	015, Faculty of	201	4	1-284	
Macanović,	к.		Transp	ort and Tra	affic Eng	gineering				
				Addition	al read	ings				
Author/s			Nam	e of public	cation,	editor	Yea	r P	Pages (from-to)	
Đorđević, D., Vasilje	ević, M.	Upr	avljanje kv Transpo	valitetom u ort and Tra	រ saobra affic Enន្ត	aćaju, Faculty c gineering	of 200	9	1-251	
Evaluation criteria		1	Α	ssesment	method	ls	1	Points	Percentage	

	Pre-exam obligations									
	Presence of lectures / exercises	10	10%							
	Seminary work	20	20%							
	Colloquium	2x35	70%							
	Final exam	Final exam								
	Final exam (oral / written)									
	TOTAL	100	100%							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering									

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic									
Course title			TCYCle	9	SAFETY	OF RAILWAY	TRAFFIC				
Department		Departm	Department for Transport Engineering – Faculty of Traffic Engineering Doboj								
c	Code		Coι	Course status		Semester			ECTS credits		
САФ11СЖО	7105785	,0220	со	mpulsory		VII	I	5,0			
Professor/s	Phi	D Ratko Đu	uričić								
Associate/s	MS	c Vladimir	MALCIC						Charlent and all a set		
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester)		coefficient So		
L	TE	-							S _o		
Z Total toach		and (hours		2*15*1	.,5	Z*15*1,5	0*15*1,5		1,5		
2*1	.5 + 2*15	+ 0*15 = 6	50 hours	lei)		3*15*1.5 + 2	*15*1.5 + 0	*15*	1.5 =90 hours		
		Total w	orkload: W+	T=Uont= 60) + 90 =	150 hours per	r semester	10	2,5 50 110 115		
 By mastering this course, students will understand the basic principles of safe railway traffic. Being familiar with the principles of interoperability, will be able understand causally-related links of interoperability and safety of the rail system. It will be able to analyze parameters that affect the safety of rail transport They will be qualified to use methods for assessment and assessment of risks in ratraffic It will be able to demonstrate the establishment of safety management system railway companies and infrastructure managers. They will be able to manage the safety management system, and that, after gapractical experience on the railway, they manage individual sectors or ratorganizations responsible for the safety of railway transport and traffic. 						inciples of safety in ility, will be able to e rail system. hsport ent of risks in railway agement systems for d that, after gaining sectors or railway fic.					
Prerequisites	Reg	ures auditory exercises consultation									
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 100 111 122 133 144 15	 Lectures, auditory exercises, consultation Basic concepts on the safety of railway traffic, Indicators on safety of railway traffic, Criteria for determining the level of safety, Extraordinary events on the railway, The expertise of extraordinary events in railway, Examples of extraordinary events analysis, I colloquium; Transportability of a railway as a safety factor, The effects of the human factor on a safety of a rail traffic, The effects of the technical factor on a safety of a rail traffic, Normative acts regulating the safety of railway traffic, Training and health conditions that workers need to fulfill in order to increase safety, Safety exploitation characteristics and the use of some devices; 									
Textbook (s)											
Autho Đuričić R., Bo	o r/s ošković B. S	,	Name Europea	ot publica n concept	tion, p od safe	ublisher ety railway	2016	5	Pages (from-to) 220		
Rosic	<u>.</u>			Addition	al read	ings					
Autho	or/s		Nam	e of public	cation,	editor	Year	r	Pages (from-to)		

	Assesment methods	Points	Percentage						
	Pre-exam obligations								
	Presence during lectures	10	10%						
Evoluation critoria	Positively evaluated seminary work	20	20%						
Evaluation criteria	Passed all colloquiums	30	30%						
	Final exam								
	Final exam(verbally)	40	40						
		100	100%						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering						

SET S WCTOYHO					EASTS	ARAJEVO			2005 NA188 24
18.			Faculty of	I ransport	and Ira	ffic Engineerin	g		Search Frank
· 82*			•	Profile: Ra	jium. n ilwav ti	raffic			
1915 45to 40 14	II.		I cycle			IV year of st	udy		AOEO1
Course title			RA	ILWAY MA	RKETIN	NG AND MARK	ETING OPER	ATIC	ONS
Department		Departme	ent for Tra	nsport Eng	ineerin	g – Faculty of T	Traffic Engine	eerin	ig Doboj
	Code		Course status		Seme	ster		ECTS credits	
САФ11СЖ	07234585	,0220	optional VIII					5,00	
Professor/s	Ph	D Svetlana	TERZIĆ						
Associate/s	Ph	D Svetlana	TERZIC						Charlen to a shift and
	Weekly h	nours		Individ	lual stu	dent hours (pe	er semester)		coefficient So
L	TE		LE	L	_	TE	LE		So
2	2		0	2*15*1	L,5	2*15*1,5	0*15*1,5		1,5
l otal teac	her workl	0ad (hours, + 0*15 - 6	per semes	ster)		lotal student	workload (he $*15*15 \pm 0$)	ours, ∗1⊑*	, per semester)
2 1	12 + 2 15		rkload: W+	T-II 6	0 + 90 -	$-2^{-15^{-1},5+2}$	r comostor	12	1,5 –90 110015
	Ge	tting acqua	inted with	current ch	0 + 90 - anges i	n the railway t	ransnort ma	rkot	the causes and
		nsequences	of current	changes.	and gai	ning knowledg	e in the field	of n	narket and
	ma	irketing ope	erations on	the railwa	av. Ever	v student shou	ld be able to):	
	1.	analyze tł	ne transpoi	rt services	, market;	,			
Course aims an	d 2.	understar	nds the cur	rent chang	ges in th	e railway trans	sport market	t, and	d the need and
learning outcom	mes	inevitability for the host railway company to adjust its business in order to (p) remain							
		competiti	ve in the m	narket;					
	3.	to unders	tand signif	icant mark	eting a	ctivities and bu	isiness strate	egies	s of customer
		relationsh	lip manage	ement, in o	rder to	maintain curre	ent users of i	railw	ay services and
Proroquisitos	No	conditions	their ioyan	ly.					
Teaching meth	ods Lee	tures audi	tory and co	omputatio	nal exer	cises consulta	ations		
	1.	Basic char	acteristics	and specif	fics of ra	ailway traffic:			
	2.	 Dasic characteristics and specifics of failway traffic, Current problems in railway traffic: opportunities to solve problems and increase the 							
		share of railways in the transport market;							
	3.	Defining t	he market	of transpo	ort servi	ces. Elements	of the transp	oort s	services market;
	4.	Marketing	g in railway	raffic;					
	5.	Railway m	harketing n	nanageme	nt. Mar	keting planning	g;		
	6.	Analysis a	s a basis to	or marketir	ng pianr	ling;			
Course content	: 7.		im	ii i allway c	Junpan	165,			
	9.	Marketing	g organizat	ion. Organ	izing ce	llular marketir	ng:		
	10). Control of	fmarketing	g activities	;		0,		
	11	L. Price man	agement a	nd the im	pact of	prices on the v	olume of tra	inspo	ort;
	12	2. Benchma	rking in rai	lway traffio	;				
	13	3. Railway re	eform in Eu	irope;					
	14	I. Analysis o	t market a	daptability	and pr	ofitability of ra	ailways;		
	1	s. II colloqui	um	Toyth	nok (c)			_	
Autho	or/s		Name	of publica	tion n	ublisher	Vear		Pages (from-to)
		Aut	chorized so	ript from ti	he subie	ect "Market an	d		
N. J. Bo	ojvić	ma	rketing ope	erations of	the rail	way", Belgrad	e, 2006	5	
				Serl	bia				
S Vacil	lievic	"R	ailway Ma	rketing", F	ligher R	ailway School,	2003		
5. vasi				Belgrade	, Serbia	1	2003	·	
				Addition	al read	ings			

Author/s		Name of publication, editor	Yea	Year		Pages (from-to)			
		Assesment methods		Poi	nts	Percentage			
	Preexan	nination obligations							
		The student's activity during le	ectures	10		10%			
Evoluction exiteria		Positively evaluated seminar		20	20%				
Evaluation criteria		Colloc	2	x20	40%				
	Final examination								
		Oral exami	nation		30	30%			
	Total		1	100	100%				
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpo	rt and Ti	raffic	engine	ering			

	LAND LEFT + MAN	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic						Constanting Oracle			
Course title						IV year of stu	ICY		DBT		
Department		Departr	ment for Trar	sport Eng	ineerin	$\frac{5}{9}$ = Eaculty of T	raffic Engin	eering Dob			
Department		Departi		isport Ling	meenin				<i>.</i> ,		
C	ode		Coι	irse status	5	Semes	ter	ECT	S credits		
САФ11СЖ07	7234685,	0220	(optional					5,00		
Professor/s	Ph) Zivko El	RCEG								
Associate/s	Ph	D Zivko El	RCEG								
V	Veekly h	ours		Individ	ual stu	dent hours (pe	r semester)	Stude co	ent workload efficient So		
L	TE		LE	L		TE	LE		So		
2	2		0	2*15*1	L,5	2*15*1,5	0*15*1,5	5	1,5		
Total teach	er worklo	oad (hour	rs, per semes	ter)		Total student v	workload (h	ours, per se	emester)		
2*15	5 + 2*15	+0*15 =	60 hours			2*15*1,5 + 2	*15*1,5 + 0	*15*1,5 =9	0 hours		
		Total w	vorkload: W+	$T=U_{opt} = 6$	0 + 90 =	= 150 hours per	semester				
Course aims and learning outcomes I to combine engineering knowledge in the field of engineering economics v special focus on railway traffic and transport. Upon completion of the course the student will be able to: - to combine engineering knowledge with an understanding of the principles of ecor in railway transport and transportation					omics with a s of economics						
Prerequisites	No	conditio	ns	-							
Teaching metho	ds Lec	tures, au	ditory and co	mputatio	nal exei	rcises, consulta	tions				
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15	 The role of railways in economic development; Railway markets; Economic characteristics of the railway; Pricing of railways; Financial sustainability of the railway; Creating a commercial railway structure; Commercial management; I colloquium; Commercial strategy; Basic techniques for economic evaluation of investment alternatives; Present value method; Economic analysis - Structural analysis of alternatives; Financial analysis; Kuestlution analysis; 									
Author	r/s		Name	of publica	tion. p	, ublisher	Yea	r Pag	es (from-to)		
	-	Th	e Economics	of Transpo	ort - A T	heoretical and					
Cowie, J.		Ap	plied Perspec	tive. Rout	ledge, L	ondon.	2009	9			
			·	Addition	al read	ings					
Author	r/s		Nam	e of publi	cation,	editor	Yea	r Pag	es (from-to)		
Blank, L., Targuin, A. Basics of Engineering Economy. McGraw-Hill					200	3					
_			A	ssesment	metho	ds		Points	Percentage		
Evaluation criter	Pre •ia	examina	tion obligatio	ns The s	student	's activity durin	g lectures	10	10%		
				P05	nuvely			20	20%		
	Fina	al examir	nation			Co	noquiums	2x20	40%		

	Oral examination	30	30%						
	Total	100	100%						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Railway traffic						ADEDJ		
Course title					E FMFR		S ON THE R	Δ11 \A	/ΔΥ	Taken Long server designed
Department	D	epartme	ent for Trar	isport Eng	ineerin	g – Faculty of T	raffic Engine	eerir	ng Dobo	 Di
Code	2	•	Coι	urse status	5	Semes	ster		ECT	S credits
САФ11СЖ0723	4785,02	20	optional VIII						5.00	
Professor/s						-				
Associate/s	ate/s MSc Sanja SIMIĆ									
Wee	ekly hou	rs		Individ	ual stu	dent hours (pe	er semester)		Stude coe	ent workload efficient So
L	TE		LE	L		TE	LE			So
2	2		0	2*15*1	L,5	2*15*1,5	0*15*1,5=	0		1,5
Total teacher v	vorkload	1 (hours, 0*15 -	per semes	ter)		Total student	workload (h	ours	, per se	mester)
2.12	+ 2, 12 +	= <u>51 °U</u>	ou n al workloa	NA · 60 + 00	- 150	2 · 15 · 1,5 +	2.12.12 +	0.1	5 · 1,5 =	90 h
Course aims and learning outcomes	Initial workload. 80 + 90 - 150 hours per semisterTraining of students for research activities related to railway traffic safety, which are carr out in order to propose organizational and technical measures relevant to raising safety levels, drafting laws and other acts, traffic planning, drafting a strategy for traffic development, etc. and training students to develop expertise in the field of railway safet During the lectures and exercises, students will be introduced to mathematical and statis models applied in research related to railway safety, preparation of temporal and spatial analysis of emergencies, analysis of emergencies at level crossings and the impact of railwon the environment.) are carried g safety c vay safety. and statistical id spatial ct of railways		
Prerequisites	None		on and n	morical	vorcico	c consultations				
Teaching methods		les, duun	nent in tra	ffic safety	xercise	s, consultations) .			
Course content	1. W 2. A 3. TH 4. Cu 5. W 5. W 6. Te 7. Sa 8. Se 9. Lu 10. Sa 11. In 12. Eu 13. Bu 14. W	 Measurement in traffic safety; Assessment of railway traffic safety; The influence of the human factor. Comparison of railway traffic safety levels; Mathematical-statistical models in research of safety characteristics of railway railway system; Temporal-spatial analysis of extraordinary events; Safety requirements in the design and operation of stations; Selected chapters from collision theory; I colloquium; Safety at road-rail crossings; Investigation and expertise of extraordinary events; Emergency databases; Benchmarking in railway safety; Modern procedures for improving railway safety; 							vay railway	
				Text	book (s)				
Author/s			Name	of publica	tion, p	ublisher	Year	r	Pag	es (from-to)
Marković M				Railway	safety					
				Addition	al read	lings				
Author/s		-	Nam	e of publi	cation,	editor	Year	r	Pag	es (from-to)
		Regu	lations, ins	structions of	and val	id laws and oth	ner			
			acts regula	ting the fi	ela of ri	aliway traffic		D-1	nto.	Deveestant
Evaluation criteria	pre-ex	am oblig	A: gations	ssesment	metho	us		201	nts	Percentage

	attendance to lectures and exercises	10	10%						
	positively evaluated project assignment (seminar paper)	20	20%						
	2x20	40%							
	final exam								
	final exam (oral / written)	30	30%						
	TOTAL	100	100%						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

SECTORING			UNIV	ERSITY OF	UNIVERSITY OF EAST SARAJEVO					
18.			Faculty of	Transport	and Ira	rfic Engineerin	g	2	Jack .	N RAL
· · · · · · · · · · · · · · · · · · ·				Profile: Ra	jium: n ilwav ti	raffic			D	
19753 - 4.5 Km 300 M	/		I cycle			III year of stu	udy			40E01
Course title			•	TEST	ING OF	RAILWAYS AN				
Department		Departme	ent for Tra	nsport Eng	ineerin	g – Faculty of 1	Traffic Engin	eering D	obo	j
(Code		Co	urse status	5	Seme	ster	l	ECTS	credits
САФ11СЖО	07206485	,0220		optional		VII	l		5	5,00
Professor/s										
Associate/s	MS	c Sanja SIN	11C					C .		
Weekly hours				Individ	lual stu	dent hours (pe	er semester)	51	coe	fficient So
L	TE		LE	L	TE LE		LE			S _o
2	2		0	2*15*1	L,5	2*15*1,5	0*15*1,5			1,5
l otal teach	1er workie 2*15 + 2*	15 + 0*15	per semes = 60	ster)		2*15*1,5	workioad (n 5 + 2*15*1,5	ours, pe + 0*15*	er sei *0 =	90
		Total wo	rkload: W-	+T=U _{opt} = 60	<u>) + 90 =</u>	150 hours per	r semester			
	By	mastering t	this course	, students	will be a	able to:	ha producti	on of nr		
	1.	yehicles	inited with	i the norms	s and re	guiations for t	ne productio	on or pro	0101	ype raii
Course aims an	d 2.	perform s	static and o	dvnamic te	sts of ra	il vehicles:				
learning outcor	nes 3.	calculate the braking mass and braking of the train;								
_	4.	get acqua	inted with	measuring	g cars a	nd train for an	alysis of dia	grams of	f per	formed
		measuring	g runs;							
	5.	acquired	knowledge	e applied ir	n practio	æ.				
Prerequisites	No	ne								
Teaching metho	ods lec	tures, audit	ory and co	omputation	hal exer	cises, consulta	tions			
	1.	 Rail vehicle - division, prototype; Putting rail vehicles into traffic: 								
	3	 running rail vehicles into traint; Standards and regulations for the construction and production of rail vehicles: 								
	4.	 Technical-technological procedures for prototyping: 								
	5.	5. Regulations and norms of putting the vehicle into use;								
	6.	6. Static-dynamic tests - UIC and JUS standards;								
	7.	7. Vehicle as a dynamic system, basic concepts. Railway vehicle testing. Braking power test.								
6		Braking m	lass and br	aking test	(I colloc	quium);			I .	tur el c
Course content	8.	Assessme	ind its elen	rack new	ropaire	r dynamic asse	essment of v	enicies a		tracks;
	10	. Measurin	ig circuit –	descriptio	n:			arety ass	50331	nent,
	11	. Operatio	n and use of	of measuri	ng circu	its for track ev	valuation – c	lescripti	on;	
	12	. Defectos	copy, cont	rol and eva	luation	of rails, axles	and wheels	on railw	ays;	
	13	. Noise and	d vibration	as concep	ts;					
	14	. Generatii	ng noise ar	nd vibratio	n;					
	15	. Estimates	s of noise a	and vibratio	on level	s from the asp	ect of fatigu	e and sa	afety	[,] in railway
		transport	(II colloqu	ium). Toytk	ook (s)					
Autho	or/s		Name	of publica	tion. n	ublisher	Yea	r [Page	es (from-to)
	/	7	esting of r	ailways an	d vehicl	es, Faculty of			9,	1.00
Jovanović R., \	asiljević l	vi. Tre	ansportati	on and Tra	ffic Eng	ineering Dobo	j 2008	5.		1-90
				Addition	al read	ings				
Autho	or/s		Nam	ne of publi	cation,	editor	Yea	r	Page	es (from-to)
Evaluation crite	eria		А	ssesment	method	ls		Points		Percentage

	Preexamination obligations		
	attendance to lectures and exercises	10	10%
	positively graded seminar paper	10	10%
	test / colloquium	2x25	50%
	Final examination		
	Oral examination	30	30%
	Total	100	100%
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering

LOGISTICS

and the second sec			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineeri	ng				Steat	005 ALIHH Ø487	4				
N. C. S.			Study program: Traffic Profile: Logistics						AOEOJ	9				
Number		Code	Course title				le Course title		Conditionality	Semester	H s	ours emes ⁻ TE	per ter LE	ECTS
			III year of study				<u> </u>							
28.	САФ11СЛ	07107156,0320	Basic forms of transport I	0		V	3	2	0	6.00				
29.	САФ11СЛ	07107256,0230	Shipping and agency business	0		V	2	3	0	6.00				
30.	САФ11СЛ	07103657,0330	Intermodal transport	0		V	3	3	0	7.00				
31.	САФ11СЛ	07103155,0220	Ecology in traffic	0		V	2	2	0	5.00				
32.	САФ11СЛ	07103256,0320	Mechanization and tehnology of transhipment	0		v	3	2	0	6.00				
33.	САФ11СЛ	07107365,0320	Basic types of transport II	0	28	VI	3	2	0	5.00				
34.	САФ11СЛ	07107466,0311	Logistics centers	0	30	VI	3	1	1	6.00				
35.	САФ11СЛ	07107565,0320) Warehouse system O			VI	3	2	0	5.00				
	САФ11СЛ	07203765.0220 1. Vertical transport				VI	_	-	_					
36.	САФ11СЛ	07234865,0220	2. Transport of dangerous goods	- I ₂		VI	2	2	0	5.00				
27	САФ11СЛ	07234967,0330	1. Logistics marketing			VI	2	2	0	7.00				
37.	САФ11СЛ	07203867,0330	2. Management in Traffic	13		VI	3	3	0	7.00				
38.	САФ11СЛ	07132962,0000	Professional practice	0		VI	0	0	0	2.00				
					Т	OTAL:	27	22	1	60				
			IV year of study	1										
39.	САФ11СЛ	07107776,0320	Logistics controlling	0		VII	3	2	0	6.00				
40.	САФ11СЛ	07107875,0220	Return logistics	0		VII	2	2	0	5.00				
41.		0/10/9/6,0320	Special areas of logistic	0	25	VII	3	2	0	6.00				
42.		07108076,0320		0	35		3	2	0	6.00				
43.		07108177,0330	City logistics	0	34		3	3	0	7.00				
44.		107104585,0220	Quality management	0			2	2	0	5.00				
45.		07104083,0220	Information management in logistics	0			2	2	0	7.00				
0.		07208385 0220	1 Internet marketing			V (11		5	5	7.00				
47.	САФ11СЛ	07235085.0220	2. Logistics providers	I 4		VIII	2	2	0	5.00				
48.	САФ11СЛ	07208584,0211	1. Project management in communications	I5		VIII	2	1	1	4.00				
40	САФ11СЛ	07208684,0211	2. Design in information system			1/111		n	0	4.00				
49.	CAΦ11CJ	107105284,0030	Graduate thesis	0		VIII	U	3	U	4.00				
					Т	OTAL:	25	24	1	60.0				

- L lectures
 TE theoretical exercises
 LE laboratory exercises

Vilice 82-0			UNIV Faculty of T	ERSITY OF Transport a Study prog Profile:	EAST and Tr gram: Logis	SARAJEVO affic Engineerin Traffic tics	g		Contraction of the second	
			l cycle			III year of stu	udy			
Course title		<u> </u>		E	BASIC	FORMS OF TRAI	NSPORT I			
Department		Departn	ment for Tran	isport Eng	ineerii	ng – Faculty of I	raffic Engl	heering D	000	
C	ode		Cou	irse status	5	Seme	ster	1	ECTS	credits
САФ11СЛ07	7107156	,0320	CO	mpulsory		V				6,0
Professor/s	Phi	D Zeljko S	itević,							
Associates/s	MS	c Eldina F	Huskanovic							
\V	Weekly I	nours		Individ	lual st	udent hours (pe	er semeste	r) St	coe	nt workload fficient So
L	TE		LE	L		TE	LE			So
3	2		0	3*15*1,4	1=63	2*15*1,4=42	0*15*1	4		1,4
Total teach	er workl	oad (hou	rs, per semes	ster)		Total student	workload	hours, pe	er se	mester)
3*1	5 + 2*15	5 + 0*15 =	= W hours	.	5 . 40	3*15*1,4+	2*15*1,4 +	0*15*1,4	1= T	hours
Course aims and learning outcomes	d 1. (2. / 3. (4. /	Gain know Gain know Acquire kr Calculate t Acquire kr	workload: W- vledge of bas nowledge for the economic nowledge abo	ic modes (each mod c profitabi out transp	of tran de of t lity of ort su	5 = 180 nours p isport ransport, the use of each bsystems	type and s	elect the	mos	t favorable
Prerequisites	No	special co	onditions							
Teaching methods	Lec	tures, the	eoretical exer	cises, con	sultati	on				
Course content	1. F 2. T 3. F 4. M 5. C 6. E 7. F 8. C 9. T 10. 11. 12. 13. 14. 15.	distorical The role a Treight tra Market ac Division ar Basic regu colloquiu Characteri Transport Transpor Analysis Transpor Quality o II colloqu	overview of t and significant ansport mark ccess and acti- nd basic mod llations um istics of mode subsystems of characteris rt services: ba- of work and l rt subsystems of service uium	transport of t traffic in et vity acces les of trans es of trans tics of tra sic proces benchmar	of goo mode s sport sport sses ar king tbook	ds rn society : services nd processes (s)				
Autho	r/s		Name	of public	ation.	publisher	Ye	ar I	Page	s (from-to)
Risto Pe	erišić		Savrem	nene tehn	ologije	transporta	199	9.		1-317
		1		Additio	nal rea	adings	1	1		
Autho	r/s		Name	of public	ation,	publisher	Ye	ar I	Page	s (from-to)
R. Božičković, M	I.Ajanov	ić Ek	ksploatacija i	održavanj	e vozil	а	2011		-	1-278
			As	sesment	metho	ods		Points		Percentage
	Pre	examinat	tion obligatio	ns						
Obligations,			-	atte	ndanc	e during lecture	s/exercise	10		10%
evaluation						sen	ninar work	20		20%
criteria						СС	olloquiums	70		70%
	Fin	al examin	nation							
				written	exam	ination/oral exa	mionation	70		70%

	Overall	100	100%
Applicable from	16.06.2021. – 175 session of the Teaching-Scientific Council of the Fa	aculty of Tran	nsport and
Applicable from	Traffic Engineering		

		UNIV Faculty of	VERSITY OF EAS Transport and Study program Profile: Log		AOEOJ			
OL ERCH		l cycle		III year of study				
Course title			SHIPPI	NG AND AGENCY BUS	SINESS			
Department	De	partment for Trai	nsport Enginee	ring – Faculty of Traffi	c Engineer	ing Doboj		
Coo	le	Cou	ourse status Semester			ECTS credits		
САФ11СЛ071	07256,023	0 co	ompulsory	V		6,0		
Professor/s	PhD Slo	bodan Subotić						
Associates/s	IVISC EIG	Ina Huskanovic				Student workload		
W	eekly hour	5	Individual	student hours (per se	mester)	coefficient So		
L	TE	LE	L	TE	LE	So		
	3		42	63	0	1,4		
i otal teacher 2*15	workload + 3*15 + 0'	nours, per seme	ster)	i otal student wor + ۱5*1 4 + 3*15*1	кіоаа (nou 0*15*1 4	rs, per semester) = 42+63+0=105 hours		
2 15	Ti	tal workload: W	+T=U _{opt} = 75 + 2	105 = 180 hours per se	emester			
	1. per	forms basic tasks	in freight forw	varding and agency act	tivities,			
Course aims and	2. pre	pare the structur	e and element	s of the supply of jobs	in the freig	ght forwarding and		
learning	age	ncy activities,						
outcomes	3. per	forms activities r	elated to extra	dition,				
	4. par	ticipates in custo	ms representa	tion and implementati	ion of custo	oms procedures,		
Proroquisitos	5. par	ial conditions	ance business i	n transport.				
Teaching	No spec							
methods	Lecture	s, theoretical exe	rcises, consulta	ation				
Course content	1. Bas 2. Stru pro 3. Tre 4. Ma 5. Cor 6. Doo 7. I co 8. Inte per 9. Org Tra 10. Org ten 11. Cus goo 12. Insu 13. App age 14. New bus	ic concepts, origi acture of function viders ands in the develour rketing, supply, s attracting and orga cuments in international orga cuments in international orga cuments in internation anization of internation anization of internation anization of transport anization anizat	n and developions and tasks opment of mod ales and prices anization of fre ational trade f s of Delivery orwarding and ernational impor- nsit flows of go f goods, ATA ca and impleme n transport. Int mation technol ight forwarding technologies f	ment of freight forwar of freight forwarding ern logistics providers of logistics services ight forwarding, agend lows - INCOTERMS 201 agency work. ort and export flows bods - application of irnet, fair affairs in frei ntation of customs p ternational payment ogies and electronic k g, transport and custor for performing freight	ding and tr g, transpo and logisti cy and logi cy and logi 0. Institut of goods. TIR carnet ight forwar procedures, pusiness in ms procedu	ransport agents rt agents and logistics cs partnerships stics operations ional frameworks for Collective organization . Organization flows of rding , customs valuation of freight forwarding and ures in European Union g, agency and logistics		
Author	s	Nam	e of publicatio	n, publisher	Year	Pages (from-to)		
Textbook (s) Author/s Name of publication, publisher Year Pages (from-transmission) Kalibarda, M. Špedicija i agencijsko poslovanje, autorizovana skripta. Saobraćajni fakultet Beograd 2008. 1-207								

		Additional readings			
Author/s		Name of publication, publisher	Yea	r Pag	es (from-to)
Zelenika, R		Temelji logističke špedicije, Sveučilište u Rijeci	2005	5.	1-672
		Assesment methods		Points	Percentage
	Preexam	ination obligations			
Obligations,		attendance during lectures/ex	10	10%	
evaluation		seminar	seminar work		
criteria		colloqu	uiums	2x35	30%
	Final exa	mination			
	Overall			100	100%
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	and Tr	raffic engine	ering

SHC SHC		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics						ADED J			
		_	l cycle			Ill year of study					
Course title		Depart	mont for Tran	II separt Engine	NTER	MODAL TRANSPOR	KT Engineerir	a Dahai			
Department		Depart	ment for Trar	isport Engine	ering	g – Faculty of Traffic	Engineerir	lg Doboj			
	Code		Coι	urse status		Semester		ECTS crea	dits		
САФ11СЛ	0710365	7,0330	CO	mpulsory		V		7,0			
Professor/s	Ph	D Sloboda	an Zečević								
Associates/s	Weekly	hours		Individu	ual st	udent hours (per se	emester)	ter) Student ter) workload coefficient S₀			
L	TE		LE	L		TE	LE		So		
3	3		0	3*15*1,33= 85	=59,	3*15*1,33=59,8 5	0*15*1,3 =0	3 1	,33		
Total tead	cher work 15 + 3*1	load (hou	urs, per seme = 90 hours	ster)		Total student work	load (hours $15*S_{2} + 0*$, per semest	er)		
	10.01	Total	workload: W·	+T=U _{ont} = 90 +	+ 120	= 210 hours per se	nester	15 50 - 1			
Course aims a learning outcomes	1. 2. 3. 4.	Recogni participa Defines disadvar Compar Assess t	izes and defin ants and user the structure ntages of eac re classical an the basic perfe	es the role a s; of the interr h element of d intermodal ormance of t	nd pla moda f the s l trans the inf	ace of intermodal to I system and deterr system in a particula sport chain technol termodal transport	ransport fo nines the a ar intermoc ogies; chain.	^r different dvantages ar al transport	nd chain;		
Prerequisites	No	special c	conditions								
Teaching methods	leo	ctures, tut	torials, case s	tudies, debat	te cla	sses					
Course conte	1. 2. 3. 4. 5. 6. 7. (C 8. 9. 10 12 12 12 12 12	Intermo Intermo Optimiz Means o Termina Transpo olloquiun Contain Contain O. Vehicle- C. V	odalism, defin odal Transport odal Transport ation models of transport in als and netwo ort and traffic n 1). ter transport s er terminals. -to-vehicle tra -vehicle road- -vehicle rail-ro logies of land lology of inter an IT system. Juum 2).	ition and deli t (IT) system. units (types, of packaging n IT. Standard rk of intermo infrastructur system techn ansport techr rail transport oad transport river-sea and rmodal trans . Legislation,	imitat , mod g, enla dizatio odal t re, op nologi t tech t tech d rive port o , inte	tion of basic concept ular chain alignment argement of interm on and codification ransport terminals. erators, organization es. es. nologies. r-sea transport veh chain optimization. rnational association	ots in interr nt). odal units i in IT. on and teler icle-vehicle ons, policy	nodal transpond n the transpond natics system and promot	ort. ort chain. ns in IT tion of IT		
				Textbo	ook (s) uhliahar	¥-	D- /	fuere to b		
Auth	nor/s		Name	e of publicati	ion, p	ublisher	Year	Pages (from-to)		
Zecevic S	., Tadic S	·	intermodalr	n transport, a	autor	izovana skripta	2016.				
Λ+μ	or/s		Name	Additional	ion n	uhlisher	Vear	Pages (from-to)		
Aut			Intermo	dal freight tr	ansny	ort Elsevier	2005	rages (1011-10)		
Priemus H	Niikamn	P.,	The Future	of Intermode	al Frei	ght Transport	2003.				
	,p	,	2			J					

Konings R		Operations, Design and Policy, Edward Elgar Pub.						
Kim K.H., Günth	er H.O.	Container Terminals and Cargo Systems: Design,						
		Operations Management, and Logistics Control 20						
		Issues, Springer						
		Assesment methods		Points		Percentage		
	Preexam	ination obligations						
		attendance during lectures/exe	ercise	5		5%		
		activity during cl	5		5%			
Obligations			20		20%			
ovaluations,		colloqi	20		20%			
critoria		Colloqi	20		20%			
cinteria	Students who pass the colloquia are released							
				writt	ten p	oart, final exam		
	Final exa	mination						
		Oral examin	ation	30		30%		
	Overall			100)	100%		
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	and Ti	raffic en	gine	ering		

SET Y NCTONION		U	IVERSITY OF	EAST	SARAJEVO			12	005
.18		Faculty	of Transport a	and Tra	affic Engineerin	g		Costan.	AS JAC
			Study prog	ram: T	Traffic				
		Loud	Profile:	Logist	ICS	udu (40E01
Course title		I CYCIE	2	FC				ALL A	
Department	Dei	partment of Ro	ad Traffic an	d Tran	sport- Faculty (of Transport	and	Traffic	Engineering
Department				u man.			unu	manne	Lingineering
Code	2		Course status	;	Seme	ster	ECTS credits		
САФ11СЛ0710	3155,0220) compu	llsory		V		5,0	0	
Professor/s	Milan M	lilotić, Associa	te Professor						
Associate/s	Milan M	lilotić, Associa	te Professor						
Weekly hours			Individ	ual stu	ident hours (pe	er semester))	Stude coe	nt workload efficient So
L	TE	LE	L		TE	LE			So
2	2	0	2*15*1,5	5=45	2*15*1,5=4 5	2*15*1,4=	=0		1,5
Total teacher	nester)		Total student	workload (h	ours	, per se	mester)		
2*15 +	2*15 + 0*2	L5 = 60 hours			2*15*1,5 + 2	*15*1,5+ 0*	*15*	1,5 = 90	hours
	Tot	al workload: W	/+T=U _{opt} = 60	+ 90	= 150 hours pe	er semester			
	By mast	ering this cour	se students v	vill be a	able to:				
	1. analy	ze the problen	ns of environ	mental	pollution;				
Course aims and	2. get a	quainted with	normative a	nd lega	al regulations re	elated to en	viror	mental	protection;
learning outcomes	3. get a	cquainted with	the global ef	ffects o	of pollution;				
	4. get a	equainted with	the tendenc	les of f	uture developr	ment of mot	or ve	enicle pi	ropulsion as
Droroquisitos	weir as i	to apply the ac	quirea knowi	leage II	n practice.				
Teaching methods	Lecture		rcises consul	Itation	c				
Teaching methods	1 Biosn	here and ecol	Jov		5				
	2. Probl	ems of enviror	omental pollu	ition					
	3. Norm	ative and lega	l regulations						
	4. Maxii	num allowable	e concentratio	ons					
	5. Air po	ollution and pr	otection						
	6. Norm	ative and lega	l regulations	on air d	quality				
	7. I collo	oquium							
Course content	8. Flue g	gas purificatior	1						
	9. Globa	l effects of po	llution						
	10. Traf	fic and enviror	imental pollu	tion					
	11. Imp	act of traffic of	n the environ	ment for ov	haust gas amis	sions			
	12. NOR	hadive and leg	ar regulations		madust gas erris	sions ator vohiclo	c		
	14 Ten	dencies of futu	re developm	ent of i	motor vehicle r	nonulsion	5		
	15 II co	lloquium	ile developin			Jopuision			
			Textb	ook (s)				
Author/s		Nar	ne of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
Đurić, S., Stanoje	vić, P.,	Ekologija	u saobraćaju,	, Saobr	raćajni fakultet	201	6		
Milotić, M	·		Dob	oj		2010	0		
		· · · · · · · · · · · · · · · · · · ·	Addition	al read	lings				
Author/s		N	ame of public	cation,	editor	Yea	r	Page	es (from-to)
			Assesment	metho	ds		Poi	nts	Percentage
Evaluation critoria	Pre-exa	m obligations							
			at	tendar	nce at lectures	/ exercises	10		10%
					0	colloquium	2x2	25	50%

	term paper	10	10%
	Final exam		
	Oral exam	30	30%
	TOTAL	100	100%
Web sources			
Applicable from	16/6/2021 - 175th session of the Council of the Traffic Faculty		

ET Y WCTOWNO				UNIV	ERSITY OF EAS	T SARAJ	EVO			2005
.18	× Z I		F	aculty of	Transport and	rattic En	ngineerin	g		See. No the
82°					Study program	: Traffic				
1015 4500 JO 14	III			Lcvcle	Frojne. Logi	111 v	ear of st	udv		AOEOJ
Course title				ME	CHANIZATION	AND TEF	INOLOG	Y OF TRANS	HIPN	MENT
Department		Dep	partme	nt for Trai	nsport Enginee	ing – Fa	culty of	Traffic Engin	eerir	ng Doboj
(Code			Со	urse status		Seme	ster		ECTS credits
САФ11СЛО	7103256,	0320		со	mpulsory		V			6,00
Professor/s	Ph	D Rat	ko ĐUF	ričić						
Associate/s	MS	ic San	ija SIM	lĆ						
	Weekly h	kly hours			Individual	tudent l	hours (pe	er semester)	Student workload coefficient S ₀
L	TE			LE	L	1	TE	LE		So
3	2			0	3*15*1,4=63	2*15 [·]	*1,4=4 2	0*15*1,4=	=0	1,4
Total teach	ner workle	oad (ł	nours,	per semes	iter)	Total	student	workload (h	ours	s, per semester)
3*1	l5 + 2*15	+ 0*1	15 =75	hours		3*15	*1,4 + 2*	*15*1,4 + 0*	*15*:	1,4 = 105 hours
		Tot	al wor	kload: W+	$T=U_{opt}=75+10$	5 = 180	hours pe	er semester		
	By	mast	ering t	his course	, students will l	e able to	0:			- f + b - a - a - b
	1.	101	unders	tand the b	asic principles	of the pi	ace, role	and signific	ance	e of the reprocessing
		con	nmodit	v flows in	the process of	reprodu	ction and	d time-non-	-ene svnch	hronized production
	2.	The	v will b	be able to	analyze the pa	ameters	s that inf	luence the c	verla	oad, learn the
		divi	sion of	mechaniz	ation assets as	well as t	their goo	d and bad t	raits	
Course aims an	d 3.	Con	ntinuou	is and cycl	ic actuators wi	l be able	e to use r	nethods for	calci	ulating capacities and
learning outcor	nes	req	uired p	ower.						
	4.	lt w	vill be a	ble to der	nonstrate the e	stablishı	ment of a	a transhipm	ent s	system with
		trar	nshipm	ent effect	S					
	5.	The	y man	age transh	ipment proces	ses, and	that, aft	er gaining p	ractio	cal experience in
		logi	stics ce	enters, the	ey manage indi	vidual se	ctors or	organizatior	is tha	at are responsible for
Dronoguisitos	No	trar	nsnipm	ent proce	sses.					
Teaching meth		ne.	tihue	orv ovorci	ses consultatio	n				
Teaching metho	1	Intr	oducti	on to the	subject The ha	sic conce	ents of m	echanizatio	n an	d technology
		trar	nshipm	ent. The r	ole of the proc	ess is cha	anging		iii uii	atcomology
	2.	Tra	nsactio	n task and	d realization of	the trans	shipmen	t process		
	3.	CON	NTINU	DUS ASSET	S - Belt convey	or.	•	•		
	4.	A cl	ustere	d conveyo	r. Transporter	scraper.				
	5.	Elev	vators.	Redlers. H	langing convey	or				
	6.	Wo	rm cor	iveyor. Ro	tary excavator.	Pneuma	atic Conv	eyors (Prep	aratio	on for I Colloquium)
	7.	Add	lers. G	ravity con	veyors (I colloq	uium)	_			
Course content	8.	(An	alysis c	of Colloqui	ums) CYCLICAL	MEANS	- Iransp	ort and han	dling	s venicles
	9.	For	KIITT - C	ranchinm	on, elements, s	ability, a	applicatio	on or to move t	hove	ahicla
	11	I Trai	nsnort	and hand	ling vehicles fo	contain	ers hanc	lling Regall	ifts	enicie
	12	2. Cra	nes - cl	assificatio	n, elements. a	plicatio	n, transh	ipment cvcl	 e, po	ower determination
	13	3. Aut	omatio	ally driver	n vehicles. Desi	gning of	the tran	shipment pr	oces	s (Preparation for
		the	II collo	quium)						
	14	4. II co	olloqui	um						
	15	5. (An	alysis o	of the II co	lloquium) The	losing w	ord and	the signatu	re of	the index.
					Textbook	(s)				
Autho	or/s			Name	of publication	publish	er	Yea	r	Pages (from-to)
Đuriči	ć R.		Ν	/lechaniza	tion of traffic,	cript,Fac	culty of	200	6	

		Transport and Traffic enginnering, Doboj				
		Mechanization of transhipment, transhipment				
Sretenović M	l.	machine and dessigne of transhipment	199	6		
		processes, Belgrade				
		Internal transportation, Warehousing and				
Milorad V.		Transhipment, Faculty of Transport and Traffic	200	1		
		engineering, Belgrade				
		Additional readings				
Author/s		Name of publication, editor	Yea	r	Pages (from-to)	
		Assesment methods	1	Poi	nts	Percentage
	Pre-exa	Assesment methods n obligation		Poi	nts	Percentage
	Pre-exa	Assesment methods n obligation Presence during le	ectures	Poi	nts 10	Percentage
	Pre-exa	Assesment methods n obligation Presence during le Activity during le	ectures ectures	Poi	nts 10 5	Percentage 10% 5%
Evaluation criteria	Pre-exai	Assesment methods n obligation Presence during le Activity during le Completed colloquiums	ectures ectures s-tasks	Poi	nts 10 5 35	Percentage 10% 5% 35%
Evaluation criteria	Pre-exai	Assesment methods m obligation Presence during le Activity during le Completed colloquiums Completed colloquiums-	ectures ectures s-tasks theory	Poi	10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exai	Assesment methods n obligation Presence during le Activity during le Completed colloquiums- am	ectures ectures s-tasks theory	Poir	nts 10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exal	Assesment methods n obligation Presence during le Activity during le Completed colloquiums- am Final exam(tasks-t	ectures ectures s-tasks theory heory)	Poir	nts 10 5 35 50	Percentage 10% 5% 35% 50%
Evaluation criteria	Pre-exal	Assesment methods m obligation Presence during le Activity during le Completed colloquiums- Completed colloquiums- am Final exam(tasks-t L	ectures ectures s-tasks theory heory)	Poir	nts 10 5 35 50 100	Percentage 10% 5% 35% 50% 100%

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics						g	A050J					
10 45r3 40 50		_		l cycle			3 rd year of st	udy					
Course title		Bas	ic type	es of trans	port II				1				
Department		Dep Dob	poj	ent for tran	isport engi	neerin	g – Faculty of I	ransport an	d Traffi	c Eng	ineering		
C	ode			Cou	urse status	5	Seme	ster		ECTS	credits		
САФ11СЛО	7107365,	0320		со	mpulsory		VI				5.0		
Professor/s	Zdravko Nu			inić, PhD, associate professor									
Associate/s	Zdr	avko	Nunić	, PhD, asso	, associate professor								
١	Weekly h	ours			Individ	ual stu	dent hours (po	er semester)	S	tude coe	nt workload fficient So		
L	TE			LE	L		TE	LE			So		
3	2			0	67.5		45	0			1.5		
Total teach	er worklo	bad (ł	hours,	per semes	ter)		Total student	workload (h	ours, pe	er sei	mester)		
	3"15 + 2*	15 + (U"15 =	VV			3*15*1.	5 + 2^15*1.5	⊦∪^15*1 1ог⊾-	.5 =			
	45 + 30 +		75 not	ars and: W+T-	-11 - 75 +	112 5	07.5 – 1975 –	+45+0=1	12.5 NO r	2.5 hours			
	٨ft		COSSE		$-U_{opt} - 75 +$		a student will l	he able to:	ſ				
			nizo ar	ny compie nd qualify i	notor vehi	icles hu	a student will i	d their mark	ing				
	2 d	2. define the criteria for the selection of optimal technological solutions for the transport of											
Course aims and		nds			the selection			ogical soluti		the t	runsport of		
learning outcom	nes 3 d	lefine	o nece	ssarv cond	itions and	docum	ents required t	for carrying	out trar	nsnor	+		
	4. 0	organ	ize the	e process o	of realization	on of tr	ansport service	e and evalua	te the r	esult	s of work.		
	5. n	nake	an op	timal choic	e of ensur	ing the	safety of vehic	cles and cars	go in tra	anspo	ort		
Prerequisites	Bas	ic typ	bes of	transport I	exam pas	sed	•		-				
Teaching metho	ds Lec	tures	s, theo	retical exe	rcises, sem	ninar pa	aper						
	1. V	. Vehicles: classification											
	2. E	xploi	ploitation and technical characteristics of vehicles										
	3. N	leces	sary c	y conditions and documents for carrying out transport									
	4. V	/ehic	le mar	king									
	5. V	ehic/	le and	cargo safe	ty								
	6. 0	Comb	ined t	ransport									
	7. C	Colloc	quium	I and test									
Course content	8.0	Contr	ol of v	ehicles in t	rattic								
	9. P	roce	SS OT S	ervice real	ization	onico	nrocoduroc	and basis da		~			
	10.	Intor	reation	of specific	rt of good		s, procedures a		Lument	.5			
	12	Tran	sport	af live anin	nt of good aals and er	s scilv no	richable foods						
	13	Wor	k resul	ts		asity pe							
	14.	Tran	sport	costs and r	nethods o	f their d	calculation						
	15.	Collo	oquiun	n II and te	st								
			•										
					Text	oook (s							
Author	r/s			Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)		
1. Nunić, Z., Miči	ić, B.			Osn	ovni vidovi	transp	orta II	201	5		1-229		
					Addition	al read	ings						
Author	r/s			Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)		
Perišić, P.			Savre	emene tehno	ologije trans	porta II		199	5		1-375		
Evel, P. S.				As	sessment	metho	ds		Points	5	Percentage		
Evaluation criter	Pre	-exar	n oblig	gations									

	e.g. attendance to lectures / exercises	10	10%
	e.g. seminar paper/ project/ essay positively assessed	20	20%
	e.g. case study – group work	/	/
	e.g. test / colloquium	70	70%
	/	/	
	/	/	
	Final exam		
	e.g. final exam (oral /written)	70	70%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			UNIV Faculty of	lg udv	2005 05011 FAIR @ 40717				
Course title			,	I	LOGISTICS CENT	ERS			
Department		Departm	nent for Trar	nsport Engineer	ing – Faculty of	Traffic Engine	ering Doboj		
Co	ode		Cou	ourse status Semester			ECTS credits		
САФ11СЛ07	107466	,0311	со	mpulsory	VI		6,0		
Professor/s	N40	- F I-1:							
Associates/s	IVIS	c Eldina H	uskanovic				Student workload		
v	Veekly h	nours		Individual st	udent hours (p	er semester)	coefficient 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=2 1	2 1,4		
Total teache	er workl	oad (hour	s, per seme	ster)	Total student	workload (ho	ours, per semester)		
3*	°15 + 1*:	15 + 1*15	= 75 h		2*15*1,4+	· 1*15*1,4+ 1	*15*1,4 = 105 h		
Course aims and learning outcomes Prerequisites	d 1. 2. 3. 4.	 recognize different types and structures of logistics flows and logistics centers; get acquainted with a wide range of services and subsystems of logistics centers; recognizes and defines the role and place of different logistics centers; correctly approach the sizing and technological spatial design of the logistics center. 							
Teaching			unsport		_				
methods	lect	ures, aud	itory exercis	ses, laboratory e	exercises, consul	tations			
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Terminal Types of Logistics Characte Technica Modeling I colloqui Technolo Sizing the Modeling Freight te RTC desig Economic Model of compan II colloqu	and RTC loc services wit center plan ristics of ma l and techno g and quanti um gy of goods e capacity of g the layout erminal desi gn methodo c assessmen interactive ium	ation selection hin logistics cen ning and design cro and micro d ological characte fication of good terminals the terminal su plan gn methodolog logy t of the justifica optimization of	models ters methodology listribution flows eristics of transp s and transport bsystem / tion of the cons logistics chains	s ort flows flows truction of th in order to im	e terminal prove the business of th		
Author			News	Textbook	(S)	Veen	Dense (from to)		
Autho	1/5		Robni tern	ninali i robno-tr	, publisner ansportni centri	Year	Pages (Trom-to)		
Slobodan Z	Zečević		Sao	braćajni fakulte	t Beograd	2006			
A+h	rla		Nores	Additional re	adings	Verr	Dagos (from to)		
Autho	1/5		The selection	on of the logistic	, publisher	n rear	Pages (Irom-to)		
Ž. Stević, S. Ve Vasiljević, C	esković, l G. Tepić	M.	using AHP r Faculty of T	method " Unive ransport and Tr LOGIC 201!	affic Engineering	, 2015 g,	86-91		
M. Vasiljević,	Ž. Stević	, I.	Combined F	uzzy AHP and T	OPSIS method fo	or 2016			

Ćosić, D. Mirčetić		solving location problem, First International Conference: Transport for today's society, Bitola, Macedonia						
Ž. Stević		Significance logistics centers, their role and task with review situation in the Republic of Srpska" International May Conference on Strategic Management – IMKSM 2015	e logistics centers, their role and task w situation in the Republic of Srpska" ional May Conference on Strategic Anagement – IMKSM 2015		80-90			
		Assesment methods		Points	Percentage			
	Preexamination obligations							
		attendance during led	ctures	5	5%			
Obligations,		attendance during ex	ercise	5	5%			
evaluation		Seminar	work	10	10%			
criteria		colloq	uiums	2x25	50%			
	Final examination							
		Oral examir	nation	100	100%			
	Overall			100	100%			
Applicable from	16.06.202	21 - 175 Session of the Councile, Faculty of Transpor	t and T	raffic engine	ering			

		UNIX Faculty of	YERSITY OF Transport a Study progr Profile: I	g					
45 x 5x3 30 50		l cycle			III year of st	udy	40603		
Course title				W	AREHOUSE SYS	TEM			
Department	De	epartment for Tra	nsport Engir	neerin	ng – Faculty of T	Traffic Engine	ering Doboj		
Cod	e	Co	urse status		Seme	ster	ECTS credits		
САФ11СЛ071	07565,032	20 cc	ompulsory		VI		6,0		
Professor/s	PhD Že	ljko Stević							
Associates/s	MSc El	dina Huskanović							
We	ekly hou	rs	Individu	ual stu	ident hours (pe	er semester)	Student workload coefficient S₀		
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		
I otal teacher	workload	l (nours, per seme	ster)		I otal student	workload (ho	ours, per semester)		
3*1	+ 15 ⁺ ר	- u · 15 = 75 []	+T-11 75	+ 10	5 · 15 · 1,4+ 5 - 120 bours n	$2^{\circ}13^{\circ}1,4+0^{\circ}$	15 1,4 = 105 []		
Course aims and learning outcomes Prerequisites	1. det 2. rec 3. rec 4. to imp	 Total workload: W+T=U_{opt}= 75 + 105 = 120 hours per semester determine: the place, role and function of the warehouse in the logistics system; recognizes the importance of the location of the warehouse; recognizes different types of inventory and apply models for their optimization; to recognize the basic characteristics and legality related to processes that are being implemented in warehouses. 							
Teaching	interin								
methods	lecture	s, auditory exerci	ses, laborate	ory ex	ercises, consul	tations			
Course content	 The Wa Ide Ide An Inv Inv Inv Wa Inv Wa Wa Unit Dir Infi Saf Ma Ma Saf Ma Saf <li< th=""><th>e place and role o arehouse systems entification and an em alysis of warehous entories rehouse of piece biloquium arehouse of scatte arehouse of liquid nensioning the sto ormation system fety in storage sys aterial handling an arehouse location colloquium</th><th>f the wareho alysis of the se systems p oad red load load orage syster n warehous tems d inventory Textl</th><th>ouse i e basic perfor m eler se syst</th><th>n characteristic c subsystems of mance ments tems oduction (s)</th><th>the warehou</th><th>cesses se and processes in</th></li<>	e place and role o arehouse systems entification and an em alysis of warehous entories rehouse of piece biloquium arehouse of scatte arehouse of liquid nensioning the sto ormation system fety in storage sys aterial handling an arehouse location colloquium	f the wareho alysis of the se systems p oad red load load orage syster n warehous tems d inventory Textl	ouse i e basic perfor m eler se syst	n characteristic c subsystems of mance ments tems oduction (s)	the warehou	cesses se and processes in		
Author/		Nam	o of publica	tion	nublisher	Vear	Pages (from-to)		
Ilija Ćosić, Željko S	tević	Skladišni siste	mi, skripta S	Saobra	aćajni fakultet	2016	י מקבי (ווטווינט)		
			Addition	al rea	dings				
Author/	5	Nam	e of publica	tion,	publisher	Year	Pages (from-to)		
, Ranko Božičković	dr.	Integration of Effective Prod Strojniški vest Engineering 5	Simulation uction Syste nik-Journal (8.11	and L ems – of Me	ean Tools in Case Study, chanical	2012	642-652		
Ranko Božičković		Mathematica	model form	nulatio	on in optimal	2007	423-426		

	·							
		program planning of individual and lean						
		Conforance "Trands in the Development of						
		Conference "Trenas in the Development of						
		machinery and Associated technology" TWT	nachinery and Associated technology" TMT					
		2007, Hammamet, Tunisia,						
		Izbor i merenje ključnih indikatora performansi u						
		skladišnom sistemu" XIX Internacionalni naučni						
Ž. Stević		skup SM 2015 Strategijski menadžment i sistemi	2015	5	931-938			
		podrške odlučivanju u strategijskom						
		menadžmentu. Subotica-Palić						
		Assesment methods		Points	Percentage			
	Preexami	Assesment methods ination obligations		Points	Percentage			
Obligations,	Preexami	Assesment methods ination obligations attendance during led	ctures	Points 5	Percentage			
Obligations, evaluation	Preexami	Assesment methods ination obligations attendance during lec attendance during exc	ctures ercise	Points 5 5	Percentage 5% 5%			
Obligations, evaluation criteria	Preexami	Assesment methods ination obligations attendance during lec attendance during ex colloqu	ctures ercise uiums	Points 5 5 2x30	Percentage 5% 5% 60%			
Obligations, evaluation criteria	Preexami	Assesment methods ination obligations attendance during lec attendance during ex colloqu mination	ctures ercise uiums	Points 5 5 2x30	Percentage 5% 5% 60%			
Obligations, evaluation criteria	Preexami	Assesment methods ination obligations attendance during lea attendance during ext colloqu mination written examination (2 colloqu	ctures ercise uiums iums)	Points 5 5 2x30 60	Percentage 5% 5% 60%			
Obligations, evaluation criteria	Preexami Final exami	Assesment methods ination obligations attendance during lea attendance during ex colloqu mination written examination (2 colloqu oral examin	ctures ercise uiums iums) nation	Points 5 5 2x30 60 30	Percentage 5% 5% 60% 30%			
Obligations, evaluation criteria	Preexami Final exami Overall	Assesment methods ination obligations attendance during lea attendance during exe colloqu mination written examination (2 colloqu oral examin	ctures ercise uiums iums) nation	Points 5 5 2x30 60 30 100	Percentage 5% 5% 60% 30% 100%			

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						200 Statement		
82°	J.			Profile:	Logisti	ics				IOEOJ
OF CASE			l cycle			III year of stu	udy			
Course title		Denart	ment for Trar	sport Eng	VER	ΓΙCAL TRANSPO σ – Faculty of T	ORT Traffic Engin	eering	g Doho	i
Department		Depart			meenin				<u></u>	J
	Code		Cou	irse status	5	Semes	ster		ECTS	credits
САФ11СЛ	07203765	,0220	0	optional		VI			Į.	5,0
Protessor/s Associates/s	MS	c Eldina	Huskanović							
	Weekly	hours		Individ	ual stu	dent hours (pe	er semester))	Stude	nt workload fficient S₀
L	TE		LE	L		TE	LE			So
2	2		0	2*15*1,5	5=45	2*15*1,5=45	0*15*1,5=	=0		1,5
Total teac	her work	load (hou	urs, per seme	ster)		Total student v	workload (h	ours,	per ser	nester)
	2*15 + 2*	Total v Total v	5 = 60 n workload: W-	T=Uont= 6	0 + 90 =	2*15*1,5+2 = 150 hours pei	2*15*1,5+0 r semester	0.12.	1,5 = 10	05 N
Course aims a learning outcomes	nd 1. 2. 3. 4.	 recognizes and defines the role and place of vertical transport in transport engineering; creates solutions for different conditions of application of vertical transport; application of certain optimization methods in vertical transport; select and improve performance in certain forms of vertical transport. 							ngineering;	
Prerequisites	No	special c	conditions							
methods	Leo	tures, th	eoretical exe	rcises, con	sultatio	on				
Course conter	1. 2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15	Goals ar Historica Applicat Kinemat mechan Cab liftin Driving I colloqu Guide ar Graspin Quality, Hydraul Escalato Cable ca Basics o	nd tasks of ve al developme tion and impo tic schemes ism ng mechanisr window. Mac uium nd balance of g devices. Sup reliability, te ic lifts ors. Ski lifts ars f designing ve uium	rtical trans int and typ ortance of of eleva ns. Constr hine room the eleva oports and sting and a ertical tran Text	sport vertical tors. F uction a . Cabin tor car I bump attestal	ertical transpor l transport Requirements and calculation - construction - counterweigh ers tion of elevator	rt and chara of lifting m and basics nts and guid rs lings	cteris echar of cal es	tics of nism an culatio	f the lifting Id brakes n
Auth	nor/s		Name	of public	oook (s) publisher	Vea	r	Page	s (from-to)
Asib Al	ihodžić		Vertikalni trar	isportt, Sa	obraća	jni fakultet Dol	boj 2014	4	1 460	
	-	1		Addition	al read	lings	<u> </u>	I		
Auth	nor/s		Name	e of public	ation, J	publisher	Yea	r	Page	s (from-to)
Ahm	ić, A.		Vertikalni	transport,	Saobra	aćajni fakultet	2009	9		
			Δ	sara ssesment	metho	ds		Poir	nts	Percentage
Obligations.	Pre	examina	tion obligatio	ns						
evaluation			U	atte	ndance	e during lecture	s/exercise	1	10	10%
criteria						activity dur	ing classes		5	5%
		Seminar work 15 15%							15%	

	colloqiums	2x25								
	Final examination									
	Oral examination	20	20%							
	Overall	100	100%							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics							
4373 40			l cycle			III year of stu	dy			
Course title		-		TRANS	SPORT	OF DANGERO	US GOODS			
Department		Departn	nent for Trai	nsport Engin	eerin	g – Faculty of T	raffic Engine	eerii	ng Doboj	
	Code		Сон	Course status Semester				ECTS credits		
САФ11СЛ	0723486	5,0220	(optional		VI			5,0	
Professor/s										
Associates/s									<u></u>	
	Weekly	hours		Individu	al stu	dent hours (pe	r semester)		coefficient So	
L	ТЕ		LE	L		TE	LE		S ₀	
2	2		0	45		45	0		1,5	
Total tead	cher work	load (houi	s, per seme	ster)	I	Total student w	vorkload (ho	ours	, per semester)	
V	V = 2*15	+ <u>2*15 +</u> 0	*15 =60	-		T = 2*15*1,5	+ 2*15*1,5	<u>i + 0</u>	*15*1,5 = 90	
		Total v	vorkload: W	+T=U _{opt} = 60	+90 =	150 hours per	semester			
	1.	Organize	s the transp	ort of dange	erous g	goods according	g to the reg	ulat	ions in force in the	
Course aims a	ind	transpor	t of dangero	us goods						
learning	2.	Classifies	dangerous	goods, ensu	res th	e safety of all p	articipants	in tr	ansport and	
outcomes		monitors	all addition	al requireme	ents fo	or the transpor	t of danger	ous (goods and	
<u> </u>		equipme	nt							
Prerequisites	NC	special co	ndition							
reaching	Le	ctures, the	oretical exe	rcises, consı	ultatio	n				
methous	1	Regulatio	ons on the tr	ansport of d	langei	rous goods				
	2.	Exemptio	ons in the tra	ansport of da	anger	ous goods				
	3.	Classifica	ssification of hazardous substances							
	4.	Security	ecurity obligations in the transport of dangerous goods							
	5.	Packagin	g and packa	ging of dang	gerous	goods				
	6.	Tanks for	transport o	of dangerous	good	s				
	7.	I Colloqu	ium							
Course conte	nt 8.	Marking	and marking	g of vehicles	with o	dangerous goo	ds			
	9.	Organiza	tion of trans	sport of dang	gerou	s goods				
	10	Loading,	unloading a	nd handling	of da	ngerous goods	ort of damas		s goods	
	11	Addition	icies with m	ouern equip	traper	for the transpo	us goods by		s goods	
	12	Addition	al requireme	ents for the	transp	ort of dangero	us goods by	, idil / w/>	ter transport	
	14	. Risks in t	he transport	t of dangero	us gou	ods	~2 Poors ny	, wa		
	15	. II Colloau	ium							
		1		Textbo	ook (s)					
Auth	nor/s		Nam	e of publicat	tion, p	ublisher	Yea	r	Pages (from-to)	
Sremac S Mat	tijević M	Tr	ansport of d	angerous go	ods, F	aculty of	202	1		
Si cinacio, ivia		Те	chnical Scie	nces, Novi Sa	ad		202.	-		
		M	aterial from	lectures and	d exer	cises				
				Additiona	l read	ings				
Auth	nor/s		Nam	e of publicat	tion, p	ublisher	Year	r	Pages (from-to)	
Pamučar, D., S	Sremac, S	., Ne	ew multi-crit	eria LNN W	ASPAS	model for	.			
Stević, Ž., Ćiro	vić, G., &	ev	aluating the	work of adv	lisors	in the transpor	^t 2019	9		
Tomić, D.		OT AF			11 COM 2060	ιρατικής απά				
Tanackov I	anković -	Αμ 7 Di	k distributions	on of danger	0000.	ods in logistic	2010	2		
i aliaukuv, I., J	ατικυνίς, Ζ	, KI	ระ นารถามินเไ	n or ualiger	ous g	Jous in logistics	2018	ر		

Sremac, S., Miličić, M.,		subsystems. Journal of Loss Prevention in the								
Vasiljević, M., Mihaljev-		Process Industries, 54, 373-383.								
Martinov, J., & Škilj	aica, I.									
Tepić, G., Sremac, S	S.,	Accidents in facilities for storing hazardous								
Morača, S., Lalić, B.	,	materials. Operational Research in Engineering	9							
Kostelac, M., & Sto	jković, V.	Sciences: Theory and Applications, 2(2), 24-39.								
		Assesment methods		Points	Percentage					
	Preexamination obligations									
		attendance during led	5	5%						
Obligations,		Attendance during ex	5	5%						
evaluation		Seminar	work	10	10%					
criteria		colloc	qiums	2x25	50%					
	Final exa	Final examination								
		Oral examir	ation	30	30%					
	Overall		100	100%						
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	and Ti	raffic eng	ineering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics									
2 45r3 40 Car			I cycle III year of study								
Course title LOGISTICS MARKETING											
Department											
Cod	е		Coι	urse status	5	Seme	ster	ECT	ECTS credits		
САФ11СЛ0723	34967,0	0330	0	optional		VI			7,00		
Professor/s											
Associate/s											
We	ekly ho	ours		Individ	lual stu	udent hours (pe	er semester)) Stud	ent workload efficient So		
L	TE	TE LE		L		TE	LE		So		
3	3		0	X*15*S	So	Y*15*S₀	Z*15*S₀				
Total teacher X*15 -	otal teacher workload (hours, per semester) X*15 + Y*15 + Z*15 = W hours X*15*S ₀ + Y*15*S ₀ + Z*15*S ₀ + Z*15*S ₀ = T hours								emester) ours		
		Total w	vorkload: V	V+T=U _{opt} =	+	= hours per s	emester				
Course aims and				·							
learning outcomes											
Prerequisites											
Teaching methods											
Course content											
				Text	book (s	5)					
Author/s			Name	of publica	ntion, p	publisher	Yea	r Pa	ges (from-to)		
A .1. (Addition	al read	dings			(())		
Author/s	1		Nam	ie of publi	cation	, editor	Yea	r Pa	ges (from-to)		
						_					
			A	ssesment	metho	ods		Points	Percentage		
	_										
Evaluation criteria											
web sources				<u>())</u>							
Applicable from	16.0	0.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering									
ST Y WCTOWNO			UNIV	ERSITY OF	EAST S	ARAJEVO				2005 A 1HB @gg	
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.18			Faculty of	I ransport a	and Ira	ffic Engineering			Coast.	NY PER	
82°			•	Stuay prog	ram: 11	raffic					
4 Sec 10 10	II.			Projile.	Logisti	Ill year of stu	dv			40E01	
Course title	•		reycie		MANA	GEMENT IN TR					
Department							AITIC				
	Code		Co	urse status	;	Semes	ter		ECT	5 credits	
САФ11СЛО	7203867	,0330		electoral		VI				7,0	
Professor/s	Ass	sist. profes	sor Živko Er	ceg						-	
Associate/s	Sin	iša Božičko	ović, MBA								
	Weekly h	ours		Individ	ual stu	dent hours (pei	semester)		Stude coe	ent workload efficient So	
L	TE		LE	L		TE	LE			So	
3	3		0	60		60	0			1,33	
Total teach 3*1	ner workl .5 + 3*15	oad (hours + 0*15 = 9	s, per semes 90 hours	ster)	3	Total student v *15*1,33 + 3*1	vorkload (h 5*1,33 + 0	ours, *15*1	per se 1,33 = 1	mester) 120 hours	
Total workload: W+T=U _{opt} = 90 + 120 = 210 hours per semester											
Completing this course students will be able to:											
1. To learn the fundamentals of management as well as the principles and definitions of									tions of		
Course aims an	d ma	management;									
2. Loadership and coordination											
	4 Delegating traffic tasks										
Prerequisites	NO	No nrerequisites									
Teaching metho	ods Leo	ectures auditory exercises seminar work fieldwork									
	1. Eundamentals of management, definition and principles										
	2. (2. Organization of the company in the traffic									
	3. 1	3. Fundamentals of planning									
	4. (4. Communication in the traffic									
	5.1	5. Fundamentals of tendencies of human resource management									
	6.1	6. Leadership and coordination									
	7.1	7. Management Systems in traffic (I Colloquium)									
Course content	8.0	3. Concept and importance of control									
	9.1	 9. Process and methods of traffic control 10. Expected transfer in economic development with a focus on the development of transport 									
	11.	10. Expected trends in economic development with a focus on the development of transport									
	12	12. The basic directions of the development of transport companies. Skills of traffic									
	ma	managers									
	13.	Delegatin	g tasks in tr	affic							
	14.	Traffic ma	anagement	in the futu	re						
	15.	II colloqui	ium								
A			Alexe-	Text	book (s)	hlicher	V		D	on (from to)	
Autho	or/s	Tr	Name		culty of	Transport and	fea	r	Pag	es (from-to)	
Vešo	ović, V.		Traff	ic Enginee	ring Re	lgrade	1996	5.			
		Stra	ategic Mana	agement. F	aculty of	of Transport and	d				
Đuranov	vić, D.		Tra	ffic Engine	ering, D	oboj,	2007	7.			
				Addition	al readi	ings					
Autho	or/s		Nam	ne of publi	cation,	editor	Yea	r	Pag	es (from-to)	
Jovičić, M.		Mar	nagement -	principles	and fun	ictions	2012.	Τ			
		I	А	ssesment	method	ls		Poir	nts	Percentage	
Evaluation crite	eria Pre	e-exam obl	igations								

	Presence of lectures / exercises	10	10%					
	Seminar work	10	10%					
	Colloquium	30	30%					
	Final exam							
	Final exam (oral / written)	40	40%					
	TOTAL	100	100 %					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics I cycle IV year of study				g	Contraction of the		
Course title			Гсусте							
Department		Departm	ent for Tra	nsport Eng	ineerin	g – Faculty of T	raffic Engine	eering Dob	oi	
C	ode		Course status Semester		ster	ECTS	5 credits			
САФ11СЛО	7107776	,0320	со	mpulsory		VII			6,0	
Professor/s										
Associates/s	MS	c Eldina H	uskanović							
<u>،</u>	Weekly I	nours		Individ	lual stu	ident hours (pe	er semester)	COE	ent workload efficient So	
L	TE		LE	L		TE	LE	-	So	
3 Total toach	2 or workl	and (hour		3*15*1,4	4=63	2*15*1,4=42	0*15*1,4=		1,4	
3'	*15 + 2*	15 + 0*15	= 75 h	sterj		3*15*1.4+2	2*15*1.4+ 0	*15*1.4 = 1	LO5 h	
		Total wo	orkload: W+	T=U _{opt} = 75	5 + 105	= 180 hours pe	er semester			
	1.	1. defines logistical performance in specific tasks, performs their measurement and								
_		monitoring;								
Course aims an	aims and 2. defines key performance indicators in individual logistic processes and supply chains;								ly chains;	
outcomes	3 5. Indiages of logistic costs as one of the performance obtained with benchmark values								mark values	
outcomes		and defines the potential directions of action for the improvement of the logistics								
		processes								
Prerequisites	No	No special conditions								
Teaching methods	Lec	tures, the	oretical exe	rcises, con	sultatio	on				
	1. 2. 3. 4. 5. 6. 7.	Basic con Logistics (Measurin Logistics o Level of s Techno-e Safety of	cepts and m performanc g and moni costs ervice xploitation logistics pro	neanings o e toring of p performar ocesses an	of logist perform nce d activi	ics controlling nance ities				
Course content	8. 9. 10.	 8. I colloquium 9. Performance in logistics subsystems 10. Quality of logistics services 								
	11	Models o	fcustomer	satisfactio	n meas	urement				
	12	Key Perfo	rmance Ind	icators	ico A!	itocturo				
	13	Benchma	esources an	iu ciiterpri	ise Arci	mecture				
	15	II collogu	ium							
				Text	book (s	5)				
Autho	or/s		Name	e of public	ation,	publisher	Year	r Page	es (from-to)	
Radivojević, G.	, Miljuš,	M., Lo	gistic Conti –	olling and	Perfor	mance, Faculty	of 2007	7		
Vidović	, М.		Iransport a		Engine	ering, Belgrade	2			
Autho	r/s		Nam	Addition	ation	nublisher	Vea	Dage	es (from-to)	
Autho	1/3		Safety a	t work in t	he field	of logistics"	Teal	rage		
Ž. Stević, G.	Stojić, N	1.	Internat	tional conf	erence	for regional	2015	2015 266-271		
Vasiljević, S.	Veskov	іс <u>со</u>	ollaboration	OSH BON	TON	Dhrid, Macedor	nia			
Obligations,			Α	ssesment	metho	ds		Points	Percentage	

evaluation	Preexamination obligations							
criteria	attendance during lectures	5	5					
	attendance during exercise	5	5					
	Seminar work	10	10					
	colloquiums	2x25	50					
	Final examination							
	written examination (2 colloquiums)	50	50					
	oral examination	30	30					
	Overall	100	100					
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						Sofia hainn g	asing the	
EXACT		:	Study program	m: 1	Traffic vice					
		Lcvcle	Projile: Log	igist	IV year of st	udv	2	40E0J		
Course title		reycie		R		ics			interest.	
Department	Depa	artment for Tran	nsport Engine	erir	ng – Faculty of T	Traffic Engin	eering D	oboj		
Code		Cou	Course status Semester			ster	l	ECTS cre	edits	
САФ11СЛ0710	7875,0220	со	mpulsory		VI			5,0		
Professor/s	PhD Rado	van Višković								
Associates/s	wir Rader	ika Bjelosevic					S	tudent v	workload	
Wee	ekly hours		Individual	l stı	udent hours (pe	er semester)		coeffic	cient So	
L	TE	LE	L		TE	LE		S	0	
2	2	0	2*15*1,5=4	15	2*15*1,5=45	0*15*1,45 0	=	1,	,5	
Total teacher workload (hours, per semester) Total student workload (hours, per semester)										
2*15	5 + 2*15 + 0 -)*15 = 60	/		2*15*1,5	+ 2*15*1,5	+ 0*15*:	1,5 = 90		
	1 Intro	Iotal workload: $W+I=U_{opt}=60+90=150$ hours per semester								
Course aims and	1. mitrot distril	oution product	ion	area	is of return logi		anous as	pects re		
learning 2 mastering inventory management										
outcomes	3. Stude	nts will acquire	basic knowle	edge	e of roundabou	t supply cha	in mana	gement		
	4. indep	. independent preparation of seminar paper								
Prerequisites	No specia	lo special conditions								
Teaching methods	Lectures,	ectures, theoretical exercises, consultation								
	1. The c	oncept and sub	ject of return	log	istics					
	2. Areas	2. Areas of return logistics								
	3. Types	Types and characteristics of waste materials and returnables								
	4. 10006	ling of waste m	nd importance	etur	n nows f material recvo	ling Packing	7			
	6 Produ	ict recyclability	analysis	LE U	i material recyc	ing. racking	5			
	7. Recyc	ling of construct	tion, metal a	nd p	olastic material	s and return	flows (I	colloqu	ium)	
Course content	8. Recyc	ling of electrica	l, electronic a	and	hazardous was	te and retur	n flows	•		
	9. Inven	tory manageme	ent in the pres	sen	ce of return flo	WS				
	10. Retur	n of new, used	and used pro	duc	ts					
	11. Requi	rements for log	sistical cooper	ratio	on of return					
	12. Desig	ning an efficien	t return logist	tics n th	system e return logistic	s system				
	14. Struc	ture of return lo	gistics netwo	orks	- scope, charac	teristics, cla	ssificatio	on		
	15. Possil	ole directions of	f return logist	tics	development (I	I colloquium)			
			Textbo	ook	(s)					
Author/s		Name	e of publication	on,	publisher	Yea	r	Pages (f	rom-to)	
Regodić D.		Logistika, US B	eograd			2010)	-	-	
Stanivuković D.		Logisttika, FTN	I, Novi Sad			2003	3	-	-	
Giuntini R., Andel T		Reverse logisti	cs role model	ls, "	T&D"	199	5	-	-	
Author/-		News	Additional	l rea	adings	Ver		Dagas (f	rom to)	
Author/s		Namo	sesment mo	on,	ds	rea	Points	rages (T	rcentage	
Obligations,	Preexami	nation obligatio	ons		~u3		Tomus	re	licentage	
evaluation	Пескат			a	ttendance duri	ng lectures	10		10%	
criteria				a	ttendance durir	ng exercise	10		10%	

	Seminar work	30	30%					
	colloquiums	30	30%					
	Final examination							
	oral examination	20	20%					
	Overall	100	100%					
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

	Course title			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics					2003 50 1 1 1 1 1 1 0 0 0 0 1 1 1 1 1 1 1 1 1		
			I cycle			IV year of stu	udy				
Course title					SPECI	AL AREAS OF LO	DGISTIC				
Department		Departm	ent for Trar	nsport Eng	ineerin	ng – Faculty of T	raffic Engine	eerii	ng Doboj		
С	ode		Course status Semester			ster		ECTS credits			
САФ11СЛО	7107976	,0320	со	mpulsory		VII			6,0		
Professor/s	Ph) Željko Ste	ević								
Associates/s											
,	Weekly hours			Individ	lual stu	ident hours (pe	er semester)		Student workload coefficient S _o		
L	TE		LE	L		TE	LE		So		
3	2		0	3*15*1,4	4=63	2*15*1,4=42	0*15*1,4=	0	1,4		
Total teach	er workl	oad (hours	, per seme	ster)		Total student	workload (h	our	s, per semester)		
3	*15 + 2*	15 + 0*15	= 75 h			3*15*1,4+	2*15*1,4+()*15	5*1,4 = 105 h		
	_	Total work	load: W+T	=U _{opt} = 75	+ 105	= 180 hours	s per semest	er			
	1.	recognize	s and defin	es the role	and p	lace of scientific	c disciplines	of lo	ogistics in the		
Course aims an	d	economic	system;								
learning	2.	to creates	solutions f	or differer	nt logis	tics requiremen	its in logistic	s ar	eas;		
outcomes	3.	apply certain optimization methods in basic logistic subsystems;									
Dronoguisitos	4.	to select a	o select and improve performance in certain business systems.								
Teaching	INO										
methods	Lec	tures, theo	oretical exe	rcises, con	sultati	on					
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Historical Scientific of Division and Securing the Strategy for Logistics of Logistics of I colloquid Logistics of Education Procurem Suppliers Basics of p Physical d	developme disciplines of nd content ransport ar or the deve strategies a partnership im controlling, in logistics ent Logistic selection planning in istribution ium	ent of logis used in log of logistic: nd traffic elopment c nd Logistic logistics te structure,	tics gistics s in the of logist cs Provi echnolo wareh	e areas in which tics and intermo iders ogies ouse replenishr	it is used odal transpo nent, transp	rt ort	planning		
A			NI	Text	tbook ((S)	N-		Denne (frank ta)		
Autho	or/s		Name Special are	e or public	tice U	publisher	Year		Pages (from-to)		
Alihodžić A.,	, Stević Ž		Sarajevo,	Faculty of Engin	Transp eering	ort and Traffic	2014	ļ			
				Additio	nal rea	dings					
Autho	or/s		Name	e of public	ation,	publisher	Year	·	Pages (from-to)		
Stević Ž., Alih Knežević, Ž. S	odžić A., Stjepanov	S. M /ić Co	anagement n Bosnia an onference o	t of medica d Herzego on Strategi	al logist vina, In c Mana	tics - the situation iternational Ma	on iy 2016 M	i.	154-162		
Stević Ž., M. V Srem	/asiljević ac	, S. Fu	zzy AHP an in logistic	id ARAS mi s, 6th Inter	odel fo rnation	r decision maki al Conference	ng 2016	i.	34-43		

		"Economics and Management-Based on New Technologies" EMoNT- Vrnjačka Banja, Serbia								
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	anagement of medical logistics - the situation Bosnia and Herzegovina, International May nference on Strategic Management – IMKSM		154-162					
		Assesment methods		Points	Percentage					
	Preexam	Preexamination obligations								
		attendance during led	5	5%						
Obligations,		attendance during ex	5	5%						
evaluation		Seminar	10	10%						
criteria		colloq	2x25	50%						
	Filan examination									
		written examination (2 colloqu	iums)	50	50%					
		oral examir	30	30%						
	Overall	Overall 100 100%								
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transpor	t and Tr	affic engine	ering					

				UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics I cycle IV year of study					AUEDI		
OL ETER			I cycle			IV year of st	udy				
Course title					IND	OUSTRIAL LOGI	STICS				
Department		Departr	ment for Trar	nsport Engi	neerir	ng – Faculty of T	Fraffic Engin	eering Dob	oj		
C	ode		Coι	ırse status	e status Semester			EC	rs credits		
САФ11СЛ07	7108076	,0320	CO	mpulsory		VI		6,0			
Professor/s	PhD) Željko S	tević								
Associates/s	MS	c Eldina F	luskanović					Church			
١	Weekly hours			Individ	ual stu	ident hours (pe	er semester		Defficient So		
L	TE		LE	L		TE	LE		So		
3	2		-	3*15*1,4	=63	2*15*1,4=42	0*15*1,4=	=0	1,4		
Total teach	er workl	oad (hou	rs, per seme	ster)		Total student	workload (I	nours, per s	emester)		
3*	*15 + 2*	15 + 0*15	b = 75 h	T-11 - 7	F 1 10	3*15*1,4+	2*15*1,4+	0*15*1,4 =	105 h		
Course aims an	Total Workload: W+1=U _{opt} = 75 + 105 = 180 nours per semester										
learning	u 1.	 planning and organizing mandactaring organizations, passics of industrial systems and industrial logistics 									
outcomes	3.	 asics of industrial systems and industrial logistics, motivation communication and team work 									
Prerequisites	No	No special conditions									
Teaching		lactures theoretical exercises consultation									
methods	Lec										
Course content	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 Colloquium I 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 									
Autho	r/s		Name	e of publica	ation,	publisher	Yea	r Pa	ges (from-to)		
Tihomir P	antelić			Industrijsk	a logis	stika	200	6	1-213		
		•		Addition	nal rea	adings	•	·			
Autho	r/s		Name	e of publica	ation,	publisher	Yea	r Pa	ges (from-to)		
Tihomir P	antelić		Zbirka riješer	nih zadatak	ka sa iz	vodima iz teori	je 200	6	1-174		
	Pre	examinat	A: tion obligatio	ssesment r ons	netho	ds		Points	Percentage		
Obligations				atter	ndance	e during lecture	es/exercise	10	10%		
obligations,						Sen	ninar work	20	20%		
criteria						Co	lloquium I	10	10%		
cincenta						Со	lloquium II	10	10%		
	Fina	al exam									
					1	final exam (ora	l / written)	50	50%		

	Overall	100	100%						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

Vilic		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics					ADDO			
4513 10			l cycle			IV year of st	udy			
Course title		Denertin					S Fraffia Frazina		n Dahai	
Department		Departm	Sartment for Transport Engineering – Faculty of Traffic Engine					erii	ng Doboj	
(Code		Сон	ourse status Semester		ster		ECTS credits		
САФ11СЛО	7108177	,0330	co	mpulsory		VI		7,0		
Protessor/s	Phi) Snežana	Tadić							
Associates/s	Weekly	nours	Taulo	Individual student hours (per semester			er semester)		Student workload	
L	TE		LE	L		TE	LE		S _o	
3	3		0		3=5	3*15*1,33=5 9.85	0*15*1,33	=	1,33	
Total teach	ner workl	oad (hour	s, per seme	ster)		Total student	workload (h	our	s, per semester)	
	3*15 + 3'	*15 + 0*1	5 = 90			3*15*1,33+	- 3*15*1,33 -	+ 0*	15*1,33 =120	
		Total w	vorkload: W	+T=U _{opt} = 90) + 12	0 = 210 hours p	er semester			
 Defines the basic sectings of city logistics, Defines the basic groups of generators, identifies and quantifies the parameters of logistics; Defines the basic concepts for solving the problem of city logistics; Defines the basic concepts for solving the problem of city logistics; Explain the advantages and disadvantages of different logistics solutions of the city; Recognize the role of intermodal transport and logistics centers in the function of city logistics. 							parameters of ons of the city; e function of city			
Prerequisites	No	special co	nditions							
Teaching methods	Lec	tures, the	oretical exe	rcises, cons	ultati	on				
Course conten	1. 2. 3. 4. 5. 6. 7. t 8. 9. 10. 11. 12. 13. 14. 15.	 City logistics - concept, tasks, goals and constraints World experiences - problems of logistics in cities The structure of the city logistics system. Generators of city logistics flows Logistics units. Logistics centers and terminals in cities Urban transport systems, organization and service providers Telematics systems in city logistics Structure of city logistics flows in cities (I colloquium) Parameters of city logistics. Levels of research of city logistics parameters Concepts of city logistics. City logistics initiatives Cooperative city logistics systems The concept of concentration of information flows. The concept of flow consolidation The concepts. City logistics policy Modeling of city logistics flows 							flows eters ow consolidation m)	
				Text	book	(s)			- 10 >	
Autho	or/s		Nam	e of publica	ition,	publisher	Year		Pages (from-to)	
Zecević S.,	, Tadić S.		City logisti	ka, Saobraća	ajni ta	akultet Beograd	2013	;		
Auth	or/s		Nam	Addition	di rea	nuhlisher	Voor		Pages (from-to)	
Taniguchi E.,	Thompson i.:	on	Innovation	s in freight	trans	port, WIT Press	2003	5		
Taniguchi E., R.G	Thompso 6.:	on	City Logis	tics I, Institu	ute fo	r City Logistics	1999)	-	

	Assesment methods	Points	Percentage							
Obligations, evaluation	Preexamination obligations									
	attendance during lectures/exercise	5	5%							
	activity during classes	5	5%							
	tests	20	20%							
	colloqium 1	20	20%							
criteria	colloqium 2	20	20%							
	Students who pass the colloquia are releasedwritten part, final exam									
	Final examination									
	Oral examination	30	30%							
	Overall	100	100%							
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Logistics							C.		
3 4.5% 3.0			I cycle			IV year of stu	ıdy				
Course title		_	• –	ORGA	NIZATIO	ON OF TRAFFIC	COMPANI	ES		-	
Department		Departm	ent for Tra	nsport Eng	ineering	g – Faculty of T	raffic Engin	eerin	g Dobo	9j	
Co	de		Co	urse status	5	Semes	ter		ECTS	credits	
САФ11СЛ071	.04585,	0220	compulsory			VII			(5,00	
Professor/s	Ph	D Perica Go	ojković								
Associate/s	IVIS	c Sanja SIN	/IIC						C4	ut we while a d	
w	eekly h	ours		Individual student hours (per se			r semester))	Stude	efficient So	
L	TE		LE	2*15*1 /		TE	LE			So	
3	2		0	3*15*1	L,4	2*15*1,4	0*15*1,4	1		1,4	
Total teache 3*	r worklo 15 + 2*	bad (hours) 15 + 0*15	, per semes = 75	ster)		Total student v 3*15*1,4 +	vorkload (h 2*15*1,4+	ours, 0*15	, per se 5*1,4 =	mester) 105	
		Total wo	rkload: W+	T=U _{opt} = 75	+ 105 =	= 180 hours per	⁻ semester				
By mastering this course, students will be able to: 1. learn the basic concepts of organization, as well as types and organizational models enterprises:						models of					
Course aims and 2. will be able to analyze the organization of large business systems, business and								and			
learning outcomes development policy and development factors;											
	3.	independ	lently orga	nize and le	ad a me	eting accordin	g to define	d rule	es;		
	4.	acquired	knowledge	e in practic	e to app	oly and establis	h their own	l com	ipany a	s well as to	
		give instr	uctions to o	others how	ı to do i	t.					
Prerequisites	No	ne.									
Teaching method	s lect	tures, audi	tory and co	omputation	al exer	cises, consultat	ions				
	1.	The conc	ept and de	velopment	of the	organization					
	2.	 Types of organizational structure Organizational models of the company 									
	3. 4	Organizational models of the company Organizing large business systems									
	5	4. Urganizing large business systems									
	6.	5. Business and development policy									
	7.	Characte	ristic busin	ess factors	(I collo	quium)					
Course content	8.	8. Basic methods and techniques for optimization									
	9.	Organiza	tional cultu	ire							
	10	. Organiza	tion of bus	iness funct	ions						
	11	. Business	informatio	n systems							
	12	. Organiza	tion contro	l. Organizi	ng a me	eting					
	13	. Organiza	tion and m	anagemen	t of inve	estments	C				
	14	. Organiza	tion design	. Organiza	tional tr	ansformation of	of the comp	bany			
		. II conoqu	lum	Toyth	nook (s)						
Author	'c		Name	of nublica	tion n	uhlisher	Vea	r	Pag	es (from-to)	
Vešović, B. V. Bo	iović I	N., Ore	anization	of transnor	t comn	anies. Faculty o	of	•	1 45		
Knežević, L	j. N.	7	ransport a	nd Traffic E	Inginee	ring, Belgrade	200	7			
	<u>.</u>			Addition	al readi	ings					
Author/	s		Nam	ne of publi	cation,	editor	Yea	r	Pag	es (from-to)	
		I	Δ	ssesment	methor	ls		Poi	nts	Percentage	
Evaluation criteria	a Pre	examinatio	on obligatio	ons						. c. contago	
			0			Presence durin	g lectures		10	10%	

	Colloquium 1	10	10%					
	Colloquium 2	40	40%					
passed colloquia (theory) 20								
	Final examination							
	Oral examination	10	10%					
	Total	100	100%					
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

ST ACTORNO			UNIV	ERSITY OF	EAST S	ARAJEVO		2005 15 56 1HR @ 445		
-18-			Faculty Of	Study proc	anu ira					
* *82*				Profile:	Loaisti	cs				
1975 4589 40 M	III.		I cycle			IV year of stud	ly	AOEOJ		
Course title					QUAL	ITY MANAGEM	ENT			
Department		Depar	tment of T	ransport E	ngineer	ing - Faculty of T	ransport and	d Traffic Engineering		
	Code		Co	urse status	;	Semest	er	ECTS credits		
САФ11СЛО)7104685,	0220	N	landatory		VIII		5,00		
Professor/s	Dr	Đorđe Pop	ović, assist	ant profess	sor					
Associate/s										
	ours		Individ	ual stu	dent hours (per	semester)	Student workload coefficient S _o			
L	TE		LE	L		TE	LE	So		
2	2		0	45		45	0	1,5		
Total teac	her worklo L5 + 2*15	bad (hours, + 0*15 = 6	per semes 0 hours	ster)		Total student w 2*15*1,5 + 2*1	orkload (hou .5*1,5 + 0*1	rs, per semester) 5*1,5 = 90 hours		
		Т	otal worklo	oad: 60+90	=150 ho	ours per semeste	er			
	Ву	mastering	this course	students v	vill be a	ble to:				
	1. 0	Jnderstand	I the requir	rements of	users c	of products and s	ervices in th	e context of the needs		
Course aims an		losed by tr	ie modern alv difforon	market, ht approach	nos mo	dols and mothor	ls of moasur	omont and quality		
learning outcor	mes im	provement,								
	3. 0	levelop an	, d apply spe	ecific mode	ls of qu	ality manageme	nt in real bu	siness conditions,		
	4. r	nanage the	e resources	more effe	ctively	in his / her auth	ority in real b	ousiness conditions,		
	5. a	chieves a	more succe	essful comr	nunicat	ion (internal and	l external).			
Prerequisites	Do	es not have	9							
Teaching meth	ods Leo	tures, aud	tory exerci	ises, semin	ar work	(
	1.1	1. History of quality management development								
	2.0	2. Quality and standardization. Model of quality management system								
	3.0	3. Understanding quality. The term and definitions of quality								
	5.1	4. Qualitative, qualitative and quality management								
	org	organization								
	6. 0	6. Quality management systems								
Course content	7.1	colloquiur	n							
course content	8.1	otal Quali	y Manager	ment (TQN	1). Mod	els of excellence				
	9.1	ntegrated	Manageme	ent System	S	2015				
	10.	Process m	odel of the	ung to isc organizati	9000: ion	2015				
	12.	Risk analy	sis. Method	ds of risk a	ssessme	ent				
	13.	Methods a	and tools of	f quality						
	14.	Methods of	of measurir	ng custome	er satisf	action				
	15.	II colloqui	um							
				Text	book (s)	1				
Autho	or/s		Name	of publica	tion, p	ublisher	Year	Pages (from-to)		
Bobrek, M., N	Vilekić, M	., l l	ipravljanje	kvalitetom	n – integ	grisani sistemi	2014	1 204		
Macano	vić, K.	u	u avijarija (Transn	ort and Tra	offic Fng	Jineering	2014	1-284		
			папэр	Addition	al read	ings				
Autho	or/s		Nam	ne of public	cation.	editor	Year	Pages (from-to)		
		Up	ravljanje kv	valitetom u	ı saobra	aćaju, Faculty of				
Đorđević, D., Va	asiljevíć, N	1.	Transp	ort and Tra	affic Eng	gineering	2009	1-251		

	Assesment methods	Points	Percentage
	Pre-exam obligations		
	Presence of lectures / exercises	10	10%
	Seminary work	20	20%
Evaluation criteria	Colloquium	2x35	70%
	Final exam		
	Final exam (oral / written)		
	TOTAL	100	100%
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering

Set J WCTOING			UNIV	ERSITY OF	EAST S	ARAJEVO			2005	
-18			Faculty of	Transport a	and Tra	ffic Engineerin	g	and the second sec		
S SUCC			•	Study prog	ram: Ti	raffic				
94945 4582 JO	III		Lavela	Profile:	Logisti	LV year of st	udv		40EOJ	
Course title			Тсусте	INFORM			IT IN LOGIST	TICS		
		Departm	ent for info	rmation a	nd com	munication sys	tems in traf	fic, Faculty	of Transport	
Department		and Traff	ic Engineer	ing Doboj		,		, ,	•	
	Code		Co	urse status	5	Seme	ster	ECT	'S credits	
САФ11СЛО)7108287,	0330	СС	mpulsory		VII			7.00	
Professor/s	Želj	jko Stjepar	iović, PhD,	associate p	orofesso	or				
Associate/s	Želj	jko Stjepar	iović, PhD,	associate p	orofesso	or				
	Weekly h	ours		Individual student hours (per semester)				Stud cc	ent workload efficient S _o	
L	TE		LE	L		TE	LE		So	
3	3		0	60		60	0		1.33	
Total teac	her worklo	oad (hours	, per semes	ster)		Total student	workload (h	ours, per s	emester)	
W =3*	15 + 3*15	+ 0*15 = 4	5 + 45 = 90)	1=3	*15*1.33 + 3*	15*1.33 + 0	*15*1.33 =	: 60 + 60 + 0 =	
		Total wo	rkload: W+	T-11 90	+ 120 -	- 210 hours no	r somostor			
	1 9	Students w	ill acquire ł	hasic know	ledge re	elated to the in	nnact of info	ormation te	echnologies on	
	dev	/elopment	of informa	tion system	ns in log	zistics			sennologies on	
Course aims an	d 2.5	Students w	ill be acqua	inted with	the rol	e of electronic	data excha	nge in busi	ness	
learning outcomes operations										
	3. 5	Students w	ill acquire r	necessary k	knowled	lge related to a	a procureme	ent process	i	
	4. 5	Students w	ill be able t	o select th	e best s	upplier based	on the acqu	ired knowl	edge	
Prerequisites	No	formal pre	requisites							
Teaching meth	ods Lec	tures, clas	sroom exer	cises, tuto	rials. St	udying and inc	lividual sem	inar papers	; related to	
	info	ormation n	nanagemer	it in logisti	CS					
	1.1	nformatio	importan	co in logist	icc					
		nformatio	systems i	n logistics	ics					
	3. [2. Information systems in logistics 3. Design of information systems in logistics								
	4.1	4. Information in a logistic chain								
	5. E	Electronic	lata exchar	nge in logis	tics					
	6. E	Electronic b	ousiness in	logistics						
	7.1	nformatio	n systems ii	n a functio	n of deo	cision-making s	system deve	lopment		
Course content	: 8.0	Colloquium	1							
	9.0	Customer's	order proc	cessing in a	in infori	mation system				
	10.	Basic logis	tic concept	.s						
	11.		resource r	nanageme	nt. ERP	system develo	pment			
	12.	Identificat	ion system		ассерга	nce				
	14	Applicatio	n of RFID to	s echnology	Signific	ance and appl	ication of G	PD technol	ogv	
	15.	Colloquiu	n II		0.0.0				-61	
		•		Text	book (s)					
Autho	or/s		Name	of publica	tion, p	ublisher	Yea	r Pa	ges (from-to)	
Zdravko Božičko	ović	Info	rmation ma	anagement	in logis	stics, Traffic	2013	3	9 - 214	
Zeljko Stjepano	VIĆ	Engi	neering Do	boj	- L					
	or/c		NI	Addition	al read	ings aditor	Ver		roc (from to)	
Autho	5/10		ivan	ie or publi	cation,	eultor	rea		ses (from-to)	
-	•					•			1 -	
Evaluation crite	eria		A	ssessment	metho	ds		Points	Percentage	

	Pre-exam obligations		
	attendance to lectures and theoretical exercises	5	5%
	seminar paper / project / essay positively assessed	15	15%
	40	40%	
	final exam	40	40%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	raffic engine	ering

Set Y NCTOWNO			UNIV	ERSITY OF	EAST S	ARAJEVO			2	005		
-18.			Faculty of	Transport a	nd Trai	tic Engineerin	g		Confer	NY TRA		
			3	tuay progra	am: IK Iogistik							
1015 4500 JO	II.		Lcvcle	Frojile. I	ogistit	IV year of st	udv			40E01		
Course title			regele		INTE		TING		-			
Department		Dep	artment for Bus	iness Inform	natics -	- Faculty of Bu	isiness Ecno	mics	Bijeljina	a		
(Code		Cou	urse status	irse status		ster		ECTS	credits		
САФ11СЛО	7208385,	0220		elective		VII	I		5	5.00		
Professor/s	Žel	jko Stj	epanović, PhD,	associate pr	rofesso	r						
Associate/s	Žel	jko Stj	epanović, PhD,	associate pr	rofesso	r						
	Weekly h	ours		Individu	ial stud	dent hours (per semester)) Student worklo coefficient S		nt workload fficient S _o		
L	TE		LE	LE L		TE LE				So		
2	2		0	45		45	0			1.5		
Total teach	ner workle	oad (h	ours, per semes	ter)	_	Total student	workload (h	ours	, per se	mester)		
W =2*15	5 + 2*15 +	0*15	= 30 + 30 + 0 = 6	50	T = 2	2*15*1,5 + 2*3	15*1,5 + 0*:	15*1	,5 = 45 -	+ 45 + 0 = 90		
		Tota	al workload: W+	$T=U_{opt}=60$	+ 90 =	150 hours pe	r semester					
	1.5	studer	nts will acquire b	asic knowle	edge of	electronic ma	arketing tec	hniqi	ues			
Loarning outcor	u = 2.3	stunde	its will be able t	nowledge r	acquir	ed knowledge	in their pra	n ue	velopm Lwork i	eni n enterprises		
		Students will be able to create basic elements of Internet presentations										
Prerequisites	No	forma	al prereguisites	o create ba								
	. Leo	tures,	, classroom exer	cises, labora	atory e	xercises and t	utorials. Stu	ıdyin	g and in	dividual		
Teaching metho	ods ser	ninar	papers related t	o Internet n	, narketi	ng		,	0			
	1. 1	The ro	le and importan	ce of inforn	nation	in marketing						
	2.1	2. Internet and globalization of business processes										
	3. F	3. Functions and characteristics of Internet marketing										
	4. [4. Development phases of Internet presence										
	5.1	5. Internet media plan										
	6.1	6. Models of business appearance on the Internet										
Course content		7. Mobile advertising										
course content		8. Colloquium I 9. Web marketing										
	10.	9. Web marketing										
	11.	Goals	and advantage	s of e-mail r	market	ing						
	12.	12. E-mail marketing rules										
	13.	Othe	r electronic mar	keting techi	niques							
	14.	Defin	ing an Internet	marketing p	olan							
	15.	Collo	quium II									
				Textbo	ook (s)							
Autho	or/s		Name	of publicat	ion, pu	iblisher	Yea	r	Page	es (from-to)		
Marko Sarac	omović		Internet marke	ting to Univ	ersity	Singidunum	201	5		1 - 197		
Aleksanual Jevi	emovic		DEUgrau	Additiona	l readi	ngs			L			
Author/s			Nam	e of publica	ation.	editor	Yea	r	Page	es (from-to)		
Željko Stjepano	vić		Teaching mater	ials, Traffic	Engine	ering Doboj	201	3		1 - 71		
			A	ssesment m	nethod	s		Poi	ints	Percentage		
	Pre	e-exan	n obligations									
				att	endan	ce to lectures	/ exercises		5	5%		
Evaluation crite	eria			ser	ninar p	aper positivel	y assessed		15	15%		
						CC	olloquiums		40	40%		
							final exam		40	40%		

	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Tr	affic engine	ering

			UNIV Faculty of	VERSITY OF EAS Transport and T Study program Profile: Logi	T SARAJEVO Traffic Engineering Traffic stics					
15 4.5 mg 30 10			l cycle		IV year of stud	у	40603			
Course title				Ĺ	OGISTICS PROVIDE	RS				
Department		Departm	ent for Trai	nsport Engineer	ing – Faculty of Tra	iffic Enginee	ering Doboj			
C	Code		Со	urse status	Semeste	er	ECTS credits			
САФ11СЛО	7235085	5,0220	(optional	VIII		5,0			
Professor/s										
Associates/s							Churchenterrenterent			
	Weekly	hours		Individual s	tudent hours (per	semester)	coefficient So			
L	TE	E LE L TE		LE	So					
2	2		0	45	45	0	1,5			
Total teach	ner work	load (hour	s, per seme	ster)	Total student w	orkload (ho	urs, per semester)			
W = 2*15	5 + 2*15	+0*15 = 3	0 + 30 + 0 =	60 T	= 2*15*1,5 + 2*15	*1,5 + 0*15	*1,5 = 45 + 45 + 0 = 90			
Course aims ar learning outcomes	nd 1. 2.	 Research and anticipate the requirements of logistics markets and anticipate the demand for logistics services, create different offers and modalities of service provision, establish and develop a logistics partnership with customers Manage logistics flows and processes, manage risk and improve standards in logistics systems and processes. 								
Prerequisites	No	special conditions								
Teaching methods	Leo	ctures, the	oretical exe	rcises, consulta	tion					
Course conten	1. 2. 3. 4. 5. 6. 7. 8. 10 11 12 13 14 15	 Evolutionary development of logistics providers Different strategies and models of providing logistics services Marketing research and forecasting the demand for logistics services Logistics market segmentation and selection Management of logistics flows and processes; logistics processes in import and export flows; Risk management and transport insurance of goods I Colloquium Modeling of cold chain logistics processes in the export and import of food, pharmaceutical and medical products Organization of logistic processes in the flows of import and export of live animals Design of international export flows of specific shipments (artistic values, high-value goods, oversized and special cargoes) Management of logistics processes in humanitarian and emergency logistics Design of flows of import and export of goods for the needs of organization of sports, tourist and artistic events Application and improvement of standards in logistics processes and flows. 								
				Textboo	((s)					
Auth	or/s		Nam	e of publication	, publisher	Year	Pages (from-to)			
		Ma	aterials from	n lectures, exer	cises and papers by	,				
selected authors										
				Additional r	eadings					
Autho	or/s	111	Nam	e of publication	, publisher	Year	Pages (from-to)			
Килибарда М.		ШI Ca	тедиција и обраћајни (агенцијско пос факултет, Беог	ловање, рад, Србија	2013				

Burke R. (2011)		International logistics and freight forwarding manual, Burke, Russell John	201	1				
Sremac, S., Stević, Ž., Pamučar, D., Arsić, M., & Matić, B.		Evaluation of a third-party logistics (3PL) provider using a rough SWARA–WASPAS model based on a new rough dombi aggregator. Symmetry, 10(8), 305.	2018	3				
		Assesment methods		Points	Percentage			
	Preexamination obligations							
		attendance during lectures/ex	5	5%				
Obligations,		attendance during lex	5	5%				
evaluation		Seminar	10	10%				
criteria		collo	2x25	50%				
	Final exa	mination						
		Oral examir	nation	30	30%			
	Overall			100	100%			
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transport	t and Tr	affic engin	eering			

			UNIV Faculty of ⁻	2 0 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5							
4.502 SOL			I cycle			IV year of st	udy				
Course title				PROJECT	MANA	GEMENT IN CO	MMUNICA	TIONS			
Department											
Cod	Code		Cou	urse status	5	Semester			TS credits		
САФ11СЛ0720	8584,02	11	0	optional		VII	I		4,00		
Professor/s											
Associate/s											
We	Neekly hours Individual student hours (per semester)) Stud	lent workload Defficient So				
L	TE		LE	L		TE	LE		So		
2	1	1 X*15*S ₀ Y*15*S ₀ Z*15*S ₀									
Total teacher X*15 +	workload Y*15 + Z	orkload (hours, per semester)Total student workload (hours, per semester) $(*15 + Z*15 = W hours$ $X*15*S_0 + Y*15*S_0 + Z*15*S_0 = T hours$							emester) ours		
Total workload: W+T=U _{opt} = + = hours per semester											
Course aims and											
learning outcomes											
Prerequisites											
Teaching methods											
Course content											
				Text	book (s)					
Author/s			Name	of publica	ition,	publisher	Yea	r Pa	ges (from-to)		
A			N 1	Addition	al rea	dings	No				
Autnor/s			Nam	ie of publi	cation	, editor	Yea	r Pa	ges (from-to)		
	_										
	_		A	ssesment	metho	ods		Points	Percentage		
	<u> </u>										
	<u> </u>										
Evaluation criteria											
	<u> </u>										
web sources	10.00			<u></u>		- 1. (T					
Applicable from	16.06	5.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering									

ALC Y NOT STREAM			UNIV Faculty of	ERSITY OF EA	ST S	ARAJEVO	7		2005	
	1687 -		S	tudy program	: TR	AFFIC	5			
				Profile: log	istic	cs			ΑΟΓΟΙ	
Contraction of the second seco			I cycle			IV year of stu	ıdy			
Course title		Devert	ant fan Can	DESIGN	OF	INFORMATION	N SYSTEMS		tion Foculty of	
Department		Electrica	al Engineerir	ig East Sarajev	01111 '0	ation sciences		orna	llics, Faculty of	
Co	de	1	Cou	urse status		Semester			ECTS credits	
САФ11СЛ072	208584,	0211	compulsory VIII				4.00			
Professor/s	Žel	jko Stjepa	Stjepanović, PhD, associate professor							
Associate/s								_		
w	/eekly h	ours		Individual	stu	dent hours (pe	r semester)		Student workload coefficient S _o	
L	TE		LE	L		TE	LE		So	
2	1		1	30		15	15		1	
Total teache	r worklo	bad (hour	s, per semes	ter)		Total student v	workload (h	ours	, per semester)	
W = 2*15 +	1*15 +	1*15 = 30) + 15 + 15 =	60	T :	= 2*15*1 + 2*1	.5*1 + 1*15	*1=	30 + 15 + 15 = 60	
	1 0	I otal w	orkload: W-	+I=U _{opt} = 90 + 6	= 0d	120 hours per	semester		ofinformation	
	1. 3 SVS	tem	vill acquire r	liowieuge ieia	ateu	to developine		lure		
	2.5	Students v	vill be acqua	inted with the	e me	thodology of i	nformation	svste	em development	
	3. 5	3. Students will be able to define project requirements related to business operations in an								
Course aims and	ent	erprise								
learning outcome	4. [During tea	ching activit	ies, students v	willa	also be acquair	nted with ce	ertair	n examples related to	
	- i	information system design 5. Students will be acquainted with the methodology of project tack development related to								
	5. 5	Students v	vill be acqua	inted with the	e me	thodology of p	project task	deve	elopment related to	
Proroquisitos	No	formal n	erations in ar	i enterprise						
Frerequisites		tures cla	ssroom exer	rises laborato	orv e	exercises and t	utorials Stu	dvin	g and individual	
Teaching method	sen	ninar pap	r papers related to information system design							
	1.1	ntroducti	on to inform	ation systems	;	0				
	2.1	2. Information and business systems. Types of information systems								
	3.A	3.An integral approach to the organization of information systems								
	4. F	Protection	and securit	y of data in m	ode	rn business				
	5.5	tandardi	ation and in	itormation sys	tem	s. Personnel re	sources	1:+	casts and project	
	o. r	vioualitie:		lon system de	verc	pinent. Analys		πτy,	costs and project	
	7.1	vethodol	ogy of inforr	nation system	dev	elopment				
Course content	8. 0	8. Colloquium I								
	9. 9	System an	alysis. Funct	ion and proce	ss m	nodeling				
	10.	Event an	d data mode	eling						
	11.	An engin	eering appro	bach to inform	atio	n system cons	truction			
	12.	Database	e design and	software supp	of a	n information (system			
	13.	Program	ming and nr	ngramming lar	or ar ngua		system			
	15.	Colloqui	im II	051 annin 16 iai	1500	.BC3				
		•								
				Textboo	k (s)					
Author	s	_	Name	of publication	n, pı	ublisher	Yea	r	Pages (from-to)	
Rade Stankić		De	Design of Information Systems, Faculty of 2013			1-318				
		ECC	momics in B		eadi	ngs				
Author	's		Nam	e of publicati	on.	editor	Yea	r	Pages (from-to)	

Željko Stjepano	vić	Teaching materials, Traffic Engineering Doboj	1-145			
		Assessment methods		Point	s	Percentage
	Pre-exa	n obligations				
		attendance to lectures / exe	ercises	5		5%
Evaluation criteria		seminar paper positively as	15	5	15%	
		colloc	40	0	40%	
		fina	40)	40%	
	TOTAL		10	0	100%	
Web sources						
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpor	rt and Tr	affic e	ngine	ering

TELECOMMUNICATIONS AND POSTAL TRAFFIC

and the second se			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineerin	g				Josta	005 AJIHI @4837	1
and the second sec		F	Study program: Traffic Profile: Telecommunications and postal traj	ffic					AOEOJ	9
Ordinal		Code	Code Course title Course title					Fund classe TE	of es LE	ECTS
	1		III year of study			<u>[</u>				
28.	CAΦ11CT	07108757,0321	Digital Techniques	0		V	3	2	1	7.00
29.	САФ11СТ	07135156,0311	Planning and design of telecommunication networks and traffic in networks	0		v	3	1	1	6.00
30.	CAΦ11CT	07108955,0211	Fundamentals of communication	0		V	2	1	1	5.00
31.	CAΦ11CT	07121956,0311	Telematic systems	0		V	3	1	1	6.00
32.	CAΦ11CT	07109156,0320	Postal traffic	0		V	3	2	0	6.00
33.	САФ11СТ	07115367,0321	Computer networks and internet protocols	0 V				2	1	7.00
34.	CAΦ11CT	CAΦ11CT07102565,0320 Basics of marketing O VI							0	5.00
35.	CAΦ11CT	07109466,0320	Exploitation in postal traffic	0		VI	3	2	0	6.00
26	CAΦ11CT	CAФ11CT07209565,0211 1. Optical communications			VI		4	4	5 00	
36.	САФ11СТ	07209765,0211	2. Radio communication systems	12		VI	2	1	1	5.00
27	САФ11СТ	07235265,0211	1. Introduction to information theory	L.		VI	n	1	1	F 00
37.	САФ11СТ	07235365,0211	2. Statistical theory in communications	13		VI	2	1	T	5.00
38.	CAΦ11CT	07132962,0000	Professional practice	0		VI	0	0	0	2.00
					т	OTAL:	27	15	7	60
	[- · · · ·		IV year of study		1				_	
39.	CAΦ11CT	07135475,0220	Financial operations	0		VII	2	2	0	5.00
40.		07104675,0220	Quality management	0		VII	2	2	0	5.00
41.		0/1100//,0321	Theory of automatic control	0		VII	3	2	1	7.00
42.		0/1101//,0321	Mobile communications	0		VII	3	2	1	7.00
43.		07135576,0311	Artificial Intelligence	0			3	1	1	6.00
44.		07104585,0220		0			2	2 1	1	5.00
45.		07109985,0311	Pool time computer systems	0			3	1	1	5.00
40.		07210585 0211	1 Multimedia communications	0		VIII	3	Т	T	0.00
47.		07210385,0211	2. Distributed multimedia systems	I ₄ VIII		2	1	1	5.00	
		07208685 0211	1 Design of information systems							
48.		07203885 0211	2. Management in traffic	l5		VIII	2	1	1	5.00
49.	САФ11СТ	07105284.0030	Graduate thesis	0		VIII	0	3	0	4.00
				-	т	OTAL:	25	18	7	60.0

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L - lectures TE - theoretical exercises LE - laboratory exercises •

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-18.	A CAPALER		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							Suterning Order Part
₹ <u>-</u> УИС 82°			Pr	sfile: Tele	Study prog communic	ram: Ti ations d	raffic and postal trai	ffic		
1575 4570 30 M	/			l cycle			III year of stu	udy		AOEOJ
Course title						DIG	ITAL TECHNIC	QUE		
Department		Depa	artme	nts for ele	ectronics a	nd elect	ronic systems	- ETF East Sa	araje	200
	Code			Course status		Semester			ECTS credits	
САФ11СТ07108	757,0321			0	bligatory		V			7,00
Professor/s	Phl	D Miro	slav k	Costadinov	vić, associa	te profe	essor			
Associate/s										
-	ours			Individ	ual stu	dent hours (pe	er semester)		coefficient So	
L TE				LE	L		TE			S₀
3 Total tasal	2	and (h	<u></u>	1	60 tor)		40 Total student	ZU workload (h	<u></u>	1,33
W = 3*15	5 + 2*15 +	1*15 =	45 + 3	80 + 15 = 9	0	T = 3	*15*1,33 + 2*15	5*1,33 + 1*15*	1,33	= 60 + 40 + 20 = 120
	Du	Total v	workle	oad: W + T	= Uopt = 9	90 + 120) = 210 hours p	per semeste	r	
	By	maste	ring t	nis course	students s	nould a	icquire knowle	edge in:		
Course aims an	d 1.1	Standa	or log	mbination	notworks	peratio	115.			
learning outcor	$\operatorname{nes} \begin{bmatrix} 2 \\ 3 \end{bmatrix}$	∆rithm	nu co etic (ircuits	HELWOIKS.					
	4.1	Progra	mmal	ole logic st	ructures					
Prerequisites	The	ere is r	no prie	or condition	onality					
Teaching metho	ods Leo	tures,	theo	retical exe	rcises, labo	oratory	exercises			
	1.1	ntrodu	uction	. Switchin	g algebra					
	2.6	Basic lo	ogic ci	rcuits and	logic oper	ations				
	3. 9	Switch	Func	tions and S	Switch Net	works				
	4. 9	Standa	rd co	mbination	networks:	encode	er, decoder, co	ode converte	er	
	5. 9	Standa	rd co	mbination	networks:	multip	lexer, demultij	plexer, comr	nuta	ator
	6. 1	Memo	mory circuits. Flip flops (I colloquium)							
	7.9	Standa	ndard sequential networks: registers							
Course content	8.5	standa	andard sequential networks: counters							
	9.7	Aritnm icion o		ircuits: co	mparators,	, comple	ementers, add	er, subtracto	ors, I	multiplication and
	10	Progr	amm	s able logic (structures	Semico	nductor mem	onv		
	10.	ROM		M and Rel	PROM mer	nories	RAM type mei	mories		
	12.	Static	and	dvnamic R	AM type m	nemorv	is in type me			
	13.	Surfa	ce ma	, gnetic me	mories	,				
	14.	A/D a	nd D/	A convers	ion princip	les				
	15.	II colle	oquiu	m						
					Textb	ook (s)				
Autho	or/s			Name	of publica	tion, p	ublisher	Year	r	Pages (from-to)
Tešić	, S.		Int	egrated di	gital electr Belgr	onics, S ade	cientific book,	' 1990).	
Živković, D., F	Popović, N	1.	Pulse	e and Digit	al Electror: Belgr	nics, Aca ade	idemic Though	nt, 2004		
Dura L.I	- D		Di	gital techr	niques, Fac	ulty of [.]	Transport and	2045		
Bundal	υ, υ.		Tr	affic Engir	neering Do	boj, coι	irse materials	2015).	
Kostadinović	A Runda		P	racticum f	or Digital	Fechniq	ues Auditory			
	vi., Dullud	10,	E	xercises, F	aculty of T	ranspo	rt and Traffic	2012	2.	
D.					Engineerin	ng Dobo	oj			
					Addition	al readi	ngs			

Author/s		Name of publication, editor	Yea	ar Pag		es (from-to)		
		Assesment methods		Poi	nts	Percentage		
	Pre-exar	n obligations						
		Attending lectures / ex	ercises	5		5%		
		Positive evaluation of the seminar	15		15%			
		Colloq	15		15%			
Evaluation criteria		Colloq	15		15%			
	Laboratory exercises 10 10							
	Final exa	am						
		Ora	40		40%			
	TOTAL			100)	100%		
Web sources								
Applicable from	16.06.20 Traffic E	021 175th session of the Teaching-Scientific Counc ngineering	il of the	Facu	lty of Tr	ansport and		

	A CONTRACT			UNIV Faculty of	ERSITY OF	EAST S and Tra	ARAJEVO ffic Engineering	5	2005 Summing agent		
° *82°			Pr	ofile: Tele	communic	ations	and postal traf	fic			
275 4.573 40 M	/			l cycle			III year of stu	dy		40EOJ	
Course title	Course title PLANNING AND DESIGN OF TELECOMMUNICATION NETWOR NETWORKS								ORKS	S AND TRAFFIC IN	
Department Department of Information - Communication Systems in T Traffic Engineering in Doboj							is in Traffic,	Faci	ulty of Transport and		
	Code			Coι	ırse status	:	Semes	ter		ECTS credits	
САФ11СТО	713515	6,0311		0	bligatory		V			6.00	
Professor/s	P	hD Mir	ko Sto	jčić, assista	ant profess	sor					
Associate/s											
	hours	[Individ	ual stu	dent hours (pe	r semester))	coefficient So		
L	TE			LE	L		TE	LE		So	
3	1			1	45		15	15		1.2	
1 Otal teach	ner work	<1000 (1 + 1*15	nours,	per semes	ter) 75		Total student V T = $2*15*50 \pm 10$	VORKIOAD (N 1 * 1 5 * So + 1	ours	s, per semester)	
VV - 5 13	<u>, 1 13</u>	Tota	l work	load: W + -	75 [= 1]oot= 7	5 + 75 =	1-3 13 30 $+$	er semester	. 15	30 - 73 30 - 90	
	1	. Basic	conce	ots in the f	ield of plar	nning a	nd design of tra	insport netv	work	s. traffic units in	
	te	elecom	munic	ations							
	<u>م</u> 2.	. Meth	lethods and tools for the analysis of telecommunication traffic, Erlang's formula								
Learning outcor	u 3.	. Introc	ductior	n to mathe	matical to	ols for r	nodeling of tele	ecommunic	atior	n and postal systems	
	a	nd ana	lysis o	f traffic flo	NS						
	4.	. Acqui	ring kr	owledge o	of the basic	c princip	ples of traffic pl	anning and	desi	ign in communication	
Duana qui i i ta a	n T	etwork	s and	postal syst	ems						
Teaching meth			e no s	pecial cond	annons ses labora	tory ev	ercises and cor	sultations			
reaching mean	1	. Introc	uction	to the pla	nning and	constru	uction of teleco	ommunicatio	ons f	facilities	
	2	. Choic	e of ne	twork tech	nologies	and pro	tocols.				
	3.	. Netw	ork ma	inagement	architectu	ure. Rec	lundancy of ne	twork elem	ents	and traffic	
	re	estorat	ion.								
	4.	. Techr	io-eco	nomic aspe	ects. Valida	ation of	the telecomm	unication ne	etwo	ork project.	
	5.	. Traffi	c in po	stal and te	lecommur	ication	systems / netv	vorks			
	6.	. Basic	charac	teristics of	telecomn	nunicati	ion traffic - traf	fic unit, not	ion (of losses / delays,	
		iain tra Traffi		our, aimens	tits role in	the pr	capacity, noti	on of netwo	ork C	a networks	
	8	Chara	cterizz	ation of tra	ffic flows	Distribi	itions of reque	st and servi	ce fl	OWS	
Course content	: 9.	. Math	ematio	al modelin	g and traf	fic engi	neering in post	al and telec	omn	nunication systems	
	b	ased o	n queu	ing theory		U	0 1			,	
	1	0. Char	acteri	stics and p	erformanc	e analy	sis of lossy syst	ems. Erlang	s' lo	ss formula	
	1	1. Serv	ing reo	quests fron	n a limited	traffic	source. Interna	l traffic. Inc	omir	ng traffic	
	1	2. Class	sificati	on and per	formance	of com	munication net	works. Mul	tipha	ase service in fault	
	S)	ystems	. Arrar	iged servic	e systems	(I COllo	quium)	ad tala annu		instian systems	
		5. Appl Jeneral	mode	s of stand	neury III e	rigineei Friand	ing of postal al	nu telecomi em	mun	ication systems.	
	14 Traffic measurement and statistical analysis of measurement results										
	1	5. Trafi	fic fore	casting in	postal and	teleco	mmunication sy	/stems (II co	polloq	juium)	
					Text	ook (s)					
Autho	or/s		<u>.</u>	Name	of publica	tion, p	ublisher	Year	r	Pages (from-to)	
Sučević, D.			saoh	eri primer raćaiu	ie matem	ιατιςκιμ	metoda u P	1996			

		Teletraffic Engineering Handbook, ITU-D.	Feletraffic Engineering Handbook, ITU-D. 2006					
		Additional readings						
Author/s		Name of publication, editor	r	Page	es (from-to)			
		Assesment methods		Poi	nts	Percentage		
	Pre-exa	n obligations						
		e.g. attendance at lectures / ex	ercises					
		e.g. I am positively assessed. paper / project ,						
		e.g. case study - grou						
Evaluation criteria		e.g. test / collo						
		e.g. laboratory work / lab. ex						
		e.g. practica						
	Final exa	am						
		for example. final exam (oral / w						
	IN TOTA	L	100)	100 %			
Web sources								
Applicable from	16.06.20	021 175th session of the Teaching-Scientific Counc	il of the	Facu	lty of Tr	ansport and		
Applicable from	Traffic E	ngineering						

Set y WETOWHO			UNIVERSITY OF EAST SARAJEVO						2005		
.18.		F	aculty of 1	ransport and	Traf	fic Engineering			Server Fight		
		D	ofilo: Tolo:	study progran	n: Ir	affic and no stal traff	ile.				
1715 45V2 30	III	Pr		ommunicatio	ons a	Ill year of stu	dv.		AOEOJ		
Course title	<u> </u>										
		Departme	Penartment of Information - Communication Systems in Traffic Faculty of Transport and								
Department				Tra	affic	Engineering in	Doboj				
	Code		Course status Semester				or		ECTS credits		
	Coue		Course status Series			.01					
САФ11СТС)7108955,	0211	required V					5.0			
Professor/s	Ass	sociate Prof	essor Alek	sandar Stjepa	novi	C					
Associate/s									Student workload		
	Weekly h	ours		Individual	stuc	dent hours (pe	r semester)		coefficient So		
L		LE	L		TE	LE		So			
2	1		1	45		22,5	22,5		1,5		
Total taca	hor work!	and /hours	norcome	tor		Total student v	vorkload (he	ours	, per semester)		
10tal teac \\\/ = 2*15	11er workl(5 + 1*15 ⊥	Jau (11001'S, 1*15 = 20 J	per serries - 15 + 15 -	60 T	= 2*	*15*1,5 + 1*15	*1,5 + 1*15	5*1,5	5 = 45 + 22,5 + 22,5 =		
VV - 2 15) + I IJ +	1 15 - 50 -	- 13 + 15 -	00			90				
		Total work	load: W + '	T = Uopt = 60	+ 90	= 150 hours pe	er semester	•			
	1.6	Basic eleme	nts related	l to the comm	unic	ation process					
Course aims an	nd 2.6	Basics for ef	ficient pre	sentation, pro	ocess	ing of telecom	munication	sign	als		
learning outcom	mes 3. b	Basics of tra	nemission		inaio a of r	ng anu uigitai si	gridis vorks interr	not i	web email		
	5 (Duality of se	rvice	and exchange	. 011	nessages, netw	interi	iet,	web, eman		
Prerequisites	The	ere is no pri	or conditio	onality							
Teaching meth	ods Leo	tures, audi	tory exerci	ses, laborator	vexe	ercises					
	1. F	henomeno	logical ana	alysis of comm	nunic	cation-concept	s, codes and	d cor	ntexts		
	2. (Communica	tion proce	ss and models	s of c	ommunication	system-co	mmı	unication in transport		
	3. /	Application	of telecom	munication sy	yster	ms in solving tr	ansport pro	blen	ns.		
	Int	roduction to	o informat	ion theory and	d coo	ding. Nature an	d classificat	tion	of messages and		
	tele	ecommunic	Imunication signals. Surement units for signal transmission. Basic methods of signal analysis								
	4.1	Vleasureme	surement units for signal transmission. Basic methods of signal analysis								
	5.1	nteiligent ti Sharactorist	igent transport systems acteristics of the communication channel: handwidth, channel canacity, transmission								
	me	dia	cteristics of the communication channel: bandwidth, channel capacity, transmission								
	7.1	nfluence of	noise and	distortion du	ring	signal transmis	sion throug	te	lecommunication		
Course content	t sys	tem			0	0	0	,			
	8.1	The notion of	of modulat	ion. Basic sigr	nal m	odulation tech	iniques				
	9. E	Basic conce	ots of signa	al discretizatio	on. A	nalog-to-digita	l conversior	n pro	ocedures. Time and		
	fre	quency mul	tiplex								
	10.	Influence of	of noise in t	transmission s	syste	ems					
	12	Digital Sign	ai modula of digital ci	anal transmiss	es cion						
	12.	Influence	of noise an	d error probal	hilitv	in digital trans	mission svs	tem	s		
	14.	Hierarchie	s of analog	and digital tra	ansn	nission systems	5 5		5		
	15.	Quality of	Quality of service								
		_									
				Textboo	k (s)						
Autho	or/s		Name	of publication	ո, pւ	ıblisher	Year	r	Pages (from-to)		
Dukid	сM	Princ	iples of	l elecommu	nicat	tion, Academ	1 ^{IC} 2008	3			
		Eurod	giit, Beigra	of 7	Tolor	ommunication					
Stojan	ovic I	Cons	truction R	ook Belørade	i elet	Johnnunitatior	^{13,} 1977	7			
Banian	nin M	Com	munication	Engineering	STF	Dobo	2007	7			
Banjan		0011					2007				

Additional readings										
Author/s		Name of publication, editor	r Pages (from-		es (from-to)					
		Assesment methods		Points	S	Percentage				
	Pre-exa	n obligations								
	TE Atter	dance at lectures / exercises	5		5%					
	Positive	y graded seminar paper	15		15%					
Evaluation criteria	Colloqui	um 1	15		15%					
	Colloqui	um 2	15		15%					
	LE				10	10%				
	Final exa	am			40	40%				
SUM						100%				
Web sources										
Applicable from	06/16/2	021 - 175th session of the Teaching-Scientific Counc	il of the	Faculty	y of T	ransportation				

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic								
Course title				reycie	Т		EMS			
Department		Dep	Department of Information - Communication Systems in Traffic, Faculty of Transport and Traffic Engineering in Doboj							
	Code	•		Course status		Seme	Semester		ECTS credits	
САФ11СТО	7121956,	0311		r		6.0				
Professor/s	Ass	ociate	e Prof	essor Alek	sandar Stjepano	ovic				
Associate/s										
	Weekly h	ours			Individual s	tudent hours (p	er semestei	r)	Student workload coefficient S _o	
L			LE	L	TE	LE		So		
3			1	45	15	15		1,5		
Total teach	ner workle	oad (h	ours,	per semes	ster)	Total student	workload (hours	s, per semester)	
V	= 3*15 +	1**15 + Total	+ 1*15	5 = 75	T = Llopt = 60 +	$1 = 3 \times 15 \times 50 + \frac{1}{20} = 150$ hours r	+ 1*15*50 +	1*15		
Course aims and learning outcomes 1. active knowledge of regulations and norms, European regulations related to ITS 2. proposal of solution of distributed information and communication systems for transp 3. ITS research and interaction with spatial information infrastructure 4. ITS architecture								ted to ITS stems for transport ems		
Prerequisites	The	ere is r	no pri	or conditio	onality					
Teaching metho	ods Leo	tures,	, audit	ory exerci	ses, laboratory	exercises				
Course content	1. 1 2. 7 3. 8 4. 8 pro 5. 1 6. 1 7. 1 8. 8 9. 1 10. 11. 12. 13. 14. 15.	Traffic Adapta Basic d Europe Jject TS arc Traffic Technic Detect Telecol Spatia Varial Autor Conge Inforr Interr	mana able to definit ean pr chitect mana ical pr cors ar mmun al infr ble sig nomo estior ming to net an	agement. T elematics s ions of tel rojects. De cure. Theo agement - econdition nd sensors nication ne astructure gnaling, sta us vehicles managen traffic part ad ITS.	Traffic managen systems. Netwo ematics. Toll co finition of ITS, S retical foundati traffic distribut traffic distribut s for the applic tworks in traffic of GIS and ITS. andards. Radio s. Artificial intel nent and applic icipants, Huma	nent strategies rk capabilities llection systems standards, norms ons, Possible app on and applicati ation of ITS rk architecture c ITS and GPS. Loo data systems ligence systems ation of ITS in co n factor, QoE, Qo	s of the dire plications of ion of telem cation-base in traffic ongestion m oS	ective, f ITS latics d serv anage	, Legal bases, FRAME systems vices ement	
					Textbook	(s)				
Autho	or/s			Name	of publication,	publisher	Yea	ar	Pages (from-to)	
Stjepanovic A, M	ovic	Teler Facul	natic syste ty of Trans	ems, University sport and Traffi	 of East Saraje c Engineering 	evo, 202	20			
					۸ ما ما : ۲: م ا	dinge				
A	or/c		_	Ner	Additional rea	aaings n. oditor	Ver		Pages (from to)	
Autho	775			ivan		ii, euitoi	Tea	21	rages (110111-10)	

Assesment methods

Evaluation criteria

Percentage

Points

	Pre-exam obligations							
	TE Attendance at lectures / exercises	5	5%					
	15	15%						
	Colloquium 1	15	15%					
	Colloquium 2							
	LE	10	10%					
	Final exam	40	40%					
	SUM	100	100%					
Web sources								
Applicable from	06/16/2021 - 175th session of the Teaching-Scientific Council of the	Faculty of T	ransportation					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						Service in the service of the servic			
		Profile: Telecommunications and postal traffic								40EOJ	
Course title		POSTAL TRAFFIC									
Department	C T	epartme raffic En	ent of Infor gineering i	mation - Co n Doboj	mmun	ication System	s in Traffic,	Facu	lty of T	ransport and	
Code	9		Course status Semester			ter		ECTS	5 credits		
САФ11СТ0710	9156,03	20	0	bligatory		V		6.00			
Professor/s	PhD D	Dejan Ma	rković, full	professor							
Associate/s We	ekly hou	ırs		Individu	al stud	lent hours (pe	r semester)	Student workload			
		IF	-		TE	IF		CO6	S		
3	2		0	63		42	0			1.4	
			0			Total student v	vorkload (h	ours.	per se	mester)	
Total teacher W = 3*15 + 2*15	workload 5 + 0*15	d (hours, = 45 + 30	per semes 0 + 0 = 75	iter) hours	T = 3'	*15*1,4 + 2*15	*1,4 + 0*1 hours	5*1,4	= 60 +	42 + 0 = 105	
	То	tal workl	oad: W + 1	Γ = U _{opt} = 75	+ 105	= 180 hours p	er semeste	r			
Course aims and learning outcomes 1. Introducing students to the basic concepts and knowledge in the field of postal traffic 2. History of postal traffic 3. Organization and functions of postal traffic 4. Basics of international postal traffic 5. Postal services and network									ו traffic		
Prerequisites	erequisites Conditions for taking the course are: 1. regular class attendance (lectures and exercises), 2. completed and defended project task, 3. passed all colloquia, 4. achieved a minimum number of points on the tests.										
Teaching methods	Lectu	res, audi	tory and ca	alculation ex	ercise	s, consultation	5				
Course content	1. Intr 2. His 3. Dev 4. Fur 5. Bas 6. I co 7. Spe 8. Cor 9. Bas 10. Co 11. Po 12. Cl 13. Po 14. Po 15. II	 Introduction. Historical development of postal traffic Developmental forms of postal connections Functions of postal traffic Basics of organization of postal traffic and communications I colloquium Specifics of the organization and functioning of postal traffic Competition in postal traffic Basics of international postal traffic Congresses of the Universal Postal Union Postal network Classification of postal service units into classes Postal services Postal address code 									
Authori/a			Nama	Textbo	ook (s)		Vaa		Dee		
Autnor/s		Pošta	anski sa	obraćaj,	Saobra	aćajni fakult	et acce	ſ	Pag	es (from-to)	
Marković, D., Grgur	ević, B.,	Unive	erziteta u E	Beogradu			2006				
				Additional	l readi	ngs					
Author/s	• / -		Nam	e of publica	ation, e	editor	Yea	r	Pag	es (from-to)	
Grgurević, B., Mark	ović, D	Pošta	anske uslug	ge i mreža, E	Beogra	t, Beograd,	2005				
Evaluation criteria	Pre-ex	xam obli	A gations	ssesment m	lethod	S		Poir	nts	Percentage	
	Attendance and activities at lectures and exercises	10	10 %								
-----------------	--	---------------	-------------								
	Completed and positively evaluated project task	20	20 %								
	Passed tests	10	10 %								
	All colloquia passed	40	40 %								
	Final exam										
	oral	20	20 %								
		100	100%								
Web sources											
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	Faculty of Tr	ansport and								

ST Y WCTOWNON			UNIV	ERSITY OF	EAST S	ARAJEVO			2005	
	22		Faculty of	Transport a	nd Tra	ffic Engineerin	Ig	5	Sura Kanna O Anta	
N			•	Study prog	ram: Ti	raffic				
)	Pi	rofile: Tele	communica	itions (and postal tra	ffic		AOEOJ	
0. (1)			l cycle			III year of st	udy			
Course title			C	OMPUTER	NETWO	DRKS AND INT	ERNET PRO		FTF 11 1 11	
Department		of East Sa	ent of com Irajevo	puters, info	rmatio	n technologie	s and biotec	nnology,	ETF, University	
C	Code		Co	urse status		Seme	ster	E	CTS credits	
САФ11СТО	7115367,	0321	m	andatory		VI		7,00		
Professor/s	Ass	sistent Prof	fesor Gora	Boran Jauševac						
Associate/s										
	Weekly h	ours		Individu	ual stu	dent hours (pe	er semester)	Stu	ıdent workload coefficient S₀	
L	TE		LE	L		TE LE			So	
3	2		1	67,5		45	22,5		1,5	
Total teach	ner workl	nad (hours	ner semes	ster)		Total student	workload (h	ours, per	semester)	
W = 3*15	+ 2*15 +	1*15 = 45	+ 30 + 15 =	90	T = 3'	*15*1,5 + 2*1	5*1,5 + 1*15	5*1,5 = 6	7,5 + 45 + 22,5 =	
	_ 10 .						135			
	-	Total work	load: W +	$T = U_{opt} = 90$) + 135	= 225 hours p	per semester	•		
Course aims an	d ^{By}	mastering t	this course	, the studer	nt will b	be able to:	****			
learning outcomes						nratacala				
Broroquisitos	2. U								protocols.	
Teaching metho		Lectures and laboratory exercises								
i cucining incline	1. (Classificatio	n of comp	uter netwo	rks.					
	2.	Topologies	of compute	er networks	5.					
	3. 1	Definition o	f protocols	and the co	ncept	of layered stru	ucturing.			
	4.1	_ocal area n	cal area networks (LANs).							
	5. 9	Stochastic a	nd determ	inistic meth	nods of	f media access	control (MA	AC).		
	6. 1	Basics of Etl	hernet tecl	nnology.						
	7.1	colloquiun	n							
Course content	8.1	Network lay	er on the	Internet.						
	9.1	Pv4 and IP	/6.							
	10.	Rasic algor	ithms and	protocols c	funica	st routing on	tha Intornat			
	12	Transnort	laver on th	e Internet		Strouting OII		•		
	13	Email syste	em archite	cture and V	vww ł	basics.				
	14.	SNMP mar	nagement	functions ar	nd arch	nitecture.				
	15.	II colloqui	um							
				Textb	ook (s)					
Autho	or/s		Name	of publicat	tion, pu	ublisher	Year	r P	ages (from-to)	
A.Tanenbaum, I	D. Wethe	rall. Rašu Beog	narske mro grad	eže, V izdan	ije, Mik	kroknjiga,	2012			
W. Stallings		Com Pren	puter Netv tice-Hall, II	vorking Wit nc.	h Inter	net Protocols,	2009			
S. Bigelow		Raču	inartske mi avlianie M	reže, instali Jikroknijga	ranje, o Beogra	održavanje i ad	2004			
		1 2001		Additiona	al readi	ings		<u> </u>		
Autho	or/s		Nam	ne of public	ation,	editor	Year	r P	ages (from-to)	
					-					
Evaluation crite	eria		Α	ssesment n	nethoo	IS		Points	Percentage	
	Pre	e-exam obli	gations							

	attendance at lectures	5	5%
	Seminary paper	15	15%
	I Colloquium	15	15%
	II Colloquium	15	15%
	laboratory exercises	10	10%
	Final exam		
	Writing exam	40	40%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic I cycle III year of study							AOED		
Course title					BASI	CS OF MARKET	ING				
Department		Depa	irtment of N	Aarketing and	Manag	ement, Faculty	of Econom	nics in	Brcko		
	Code			Course status	5	Semes	ter	ECTS credits			
САФ11СТО	7102565,	0320		obligatory		IV				5.0	
Professor/s	Ph	D Svjetl	lana Terzić,	Associate Pro	fessor						
Associate/s									- · · ·		
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semester)	Stude coe	nt workload fficient So	
L	TE		LE	L		TE	LE			So	
3	2		0	45		45	0			1.5	
Total teacl	her workl	oad (ho	ours, per se	mester)		Total student	workload (ł	nours,	per sei	nester)	
W=2	*15 + 2*1	5 + 0*1	L5 = 60 hol		0.00	$I = 2^{15*S_0} + $	$2^{+}15^{+}S_{0} +$	∪*15*	[•] S₀ = 90	nours	
	1 1	lotal	workload:	$W + I = U_{opt} = E$	0 + 90	= 150 hours pe	er semester	-			
Course aims an	d 2.1	ntroau	icing studer	its to key cond	epts in	the field of ma	rketing.	trato	gioc		
Learning outcor	$\mathbf{u} = 2.1$	Recesso	of marketin	a managemen	t uem	ing marketing	guais allu s	siiaieį	gies.		
	4.1	Internet marketing									
Prerequisites	The	pere are no conditions for listening and taking the course									
Teaching meth	ods Leo	tures, a	auditory ex	ercises, semin	ar pape	er					
Course content	1. 2.1 3.1 4.1 5.1 6.1 7.1 8.1 9.1 10. 11. 12. 13. 14. 15.	 The concept and importance of marketing Basic principles of marketing Development of the marketing concept Marketing categorical system Marketing mix Marketing information system and decision making Marketing information system and decision making Marketing, market, consumer (I colloquium) Marketing environment Elements of marketing research Basics of marketing management Basic marketing instruments Product in marketing Price in marketing Promotion in marketing 									
Autho	or/s		Na	me of publica	tion. p	, ublisher	Yea	r	Page	es (from-to)	
Macura P.		1	Marketing	– osnov, Ekc	nomsk	i fakultet, Bar	nja 2009.				
				Addition	al read	ings					
Autho	or/s		I	Name of publi	cation,	editor	Yea	r	Page	es (from-to)	
Milisavljević M.	, Maričić I	3. (Osnovi mar	ketinga, Ekono	omski fa	akultet, Beogra	d. 2004.				
				Assesment	metho	ds		Poir	nts	Percentage	
	Pre	e-exam	obligations								
				atte	ndance	at lectures and	exercises	2	x 5	10 %	
Evaluation crite	eria				positive	ely graded sem	inar paper		10	10 %	
					W	ritten exam (2	colloquia)	ļ	50	50 %	
	Fin	al exan	n								
							oral exam	3	30	30 %	
	IN	TOTAL						1	.00	100 %	

Web sources	
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and Traffic Engineering

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							A SAFAS	AIRE CAPTE
			Study program: Traffic Profile: Telecommunications and postal traffic								AOEOJ
Course title											
Department		Depar	tment of Infor	mation - Co	ommun	ication	Systems i	n Traffic,	Facu	ulty of 1	ransport and
	Code	Traine	Cou	Irse status			Semester			ECTS	credits
САФ11СТ0	7109466	.0320	0	bligatory			VI		6.00		
Professor/s	Ph	D Dejan	Marković, full	professor							
Associate/s											
	Weekly l	nours		Individu	ual stuc	lent ho	urs (per so	emester)		Stude coe	ent workload efficient So
L	TE		LE	L		TE		LE			So
3	2		0	63		42		0			1.4
Total teach W = 3*15 + 2	ner workl 2*15 + 0*	oad (hou 15 = 45	urs, per semes + 30 + 0 = 75	ter) hours	T = 3'	Total stu *15*1,4	udent woi + 2*15*1	kload (h 4 + 0*1!, hours	ours 5*1,4	, per se 4 = 60 +	mester) · 42 + 0 = 105
		Total w	vorkload: W + 1	Γ = U _{opt} = 75	5 + 105	= 180 h	ours per s	semester	•		
	1.	The imp	ortance of pos	tal traffic ir	n the eq	conomy	and socie	ty			
Course aims and	d 2.	Technolo	ogical processe	es in postal	traffic						
learning outcom	nes 3.	The role	of philately ar	nd electroni	ic posta	age stan	nps				
	4.	Exploitat	tion in interna	tional posta	al traffi	С					
	Co	nditions	for taking the	course are	:						
	1.	regular c	class attendan	ce (lectures	and e	ercises),				
Prerequisites	2.	complet	ed and defend	led project	task,						
	3.	passed a	all colloquia,	umberofo	ainte a	n tha ta	oto				
Teaching metho	4.				vorciso		ltations				
Teaching metho	1	The role	of postal traff	ic in the ec	onomy	and sor					
	2	Technolo	ogical processe	es in shinm	ent trai	and soc hsfer	liety				
	3.	Receipt	of postal items	S in Shiping		isici					
	4.	Dispatch	of postal item	15							
	5.	Transpoi	rt of postal ite	ms							
	6.	Arrival o	f postal items								
	7.	Delivery	of postal item	S							
Course content	8.	I colloqu	iium								
	9.	Philately	/								
	10	. Electro	nic postage sta	amp							
	11	. System	is for tracking	bostal item	S ffico						
	12	Organiz	ational structu	re of the p	nice ostal o	oerator					
	14	Fxnloit	ation in intern	ational nost	tal traf	fic					
	15	.II Collog	quium								
			1	Textbo	ook (s)						
Autho	or/s		Name	of publicat	ion, pu	blisher		Yea	r	Pag	es (from-to)
Dobrodolac, M.	; Markov	ić, E	ksploatacija po	oštanskog s	saobrad	ćaja, Sao	obraćajni	2016			
D., Blagojević, N	1.	fa	akultet, Beogra	d				2010			
				Additiona	l readi	ngs					
Autho	or/s		Nam	e of public	ation, e	on, editor Year			Pages (from-to)		
Marković, D., Gr	rgurević,	B., U	oštanski sao Iniverziteta u E	braćaj <i>,</i> Beogradu,	Saobr	aćajni	fakultet	2006			
Evaluation crite	ria		A	ssesment n	nethod	s			Poi	nts	Percentage
	Pro	e-exam c	obligations								

	Attendance and activities at lectures and exercises	10	10 %
	Completed and positively evaluated project task	20	20 %
	Passed tests	10	10 %
	All colloquia passed	40	40 %
	Final exam		
	oral	20	20 %
	IN TOTAL	100	100 %
Web sources			
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	Faculty of Tr	ansport and

		Pr	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic I cycle III year of study					A OF DI		
Course title			,		OPTICA	L COM	MUNICA	ATIONS		
Department		Departm	ent of Infoi	rmation - (Commu Traffic	nicatio Engine	n Systen ering in	ns in Traffic Doboj	:, Facı	ulty of Transport and
c	ode		Cou	urse status	5		Semest	ter		ECTS credits
САФ11СТ07	7209565,	0211		elective			VI			5.0
Professor/s	Ass	ociate Prof	essor Alek	sandar Stje	epanovi	С				
Associate/s										
١	Weekly h	ours		Individ	ual stu	dent ho	ours (pe	r semester)	Student workload coefficient S ₀
L	TE		LE	L		TE	E	LE		So
2	1		1	45		22,	,5	22,5		1,5
Total teach W = 2*15	er worklo + 1*15 +	oad (hours, 1*15 = 30 ·	per semes + 15 + 15 =	ter) 60	T = 2'	Total s *15*1,!	tudent v 5 + 1*15	vorkload (h *1,5 + 1*1! 90	ours, 5*1,5	per semester) = 45 + 22,5 + 22,5 =
		Total work	load: W +	T = Uopt =	60 + 90	= 150	hours p	er semeste	r	
 Course aims and learning outcomes 1. Introducing students to basic concepts, photodiodes, phototransistors. 2. Upon completion of the course the student will be able to fully understand the principles of signal transmission in optical telecommunications systems. 3. Know the characteristics of optical fibers and cables, the way of functioning of optical and optoelectronic components and their role in the optical communication system. 4. Will be able to independently design point-to-point optical connections in accordance with recommendations and standards. 							and the principles of oning of optical and ystem. s in accordance with			
Prerequisites	The	ere is no pr	ior conditio	onality						
Teaching metho	ds Lec	tures, audi	tory exerci	ses, labora	tory ex	ercises				
Course content	1. E 2. E 3. L 4. C stai 5. C 6. L 7. I 8. F 9. F 10. 11. 12. 13. 14. 15.	 Basics of light propagation. Elements of optical connection Basic advantages of optical telecommunications Light (velocity of propagation, refractive index, reflection and refraction, polarization) Optical fibers (propagation, Snel's law, total reflection, fiber types, attenuation, dispersion, standards) Optical cables Light sources and transmitters (characteristics, LEDs and laser diodes) I colloquium Photodiodes and receivers Phototransistors Optocoupler Optocoupler Frequency Multiplex (FDM) Time multiplex (TDM) 								
				Text	book (s)					
Autho	r/s		Name	of publica	tion, pu	ublishe	r	Yea	r	Pages (from-to)
Popovic M, Des Vukobrat	spotovic ovic D	M, Opti Sad	cal Telecor	nmunicati	ons Sys	tems,	FTN, No	200 200	2	
Marinic	ic A	Opti Beog	cal Telec grad, Beogr	communica radf	ations,	Unive	ersity	of 199	7	
Karolj	S	Opto	electronic	systems, [DMZUH	Zagreb)	200	3	
Bjelica M, Ma	atavulj P,	Colle telec	ection communica	of tas itions,	ks Acader	from nic	optic Though	al nt, 200	5	

Gvozdic D

Belgrade

	Additional readings								
Author/s		Name of publication, editor	Year	Pag	es (from-to)				
		Assesment methods	F	Points	Percentage				
	Pre-exa	n obligations							
	TE Atter	dance at lectures / exercises		5	5%				
Freely states with state	Positive	y graded seminar paper		15	15%				
Evaluation criteria	Colloqui	um 1		15	15%				
	Colloqui	um 2		15	15%				
	LE			10	10%				
	Final exa	am		40	40%				
SUM					100%				
Web sources									
Applicable from	06/16/2	021 - 175th session of the Teaching-Scientific Council of	of the F	aculty of T	ransportation				

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							Satural and a state	
	/ -	P	ofile: Tele	communic	ations	and postal traff	ic du		AOEOJ	
Course title			I cycle	RAF			ay SVSTEMS			
Department		Departme	ent of Tele	communic	ations F	TE Fast Saraiev	0			
Coc	le		Со	urse status		Semes	ter		ECTS credits	
САФ11СТ072	09765,0)211		elective		VI		5,00		
Professor/s	PhD	Mirko Sto	jčić, assist	ant profess	or					
Associate/s										
We	eekly ho	ours		Individ	ual stu	dent hours (pe	r semester)		Student workload coefficient S _o	
L	TE		LE	L		TE	LE		So	
2	1		1	45		22.5	22.5		1.5	
Total teacher	worklo	ad (hours,	per semes	ter)		Total student v	vorkload (h	ours,	, per semester)	
W = 2*15 + 1*1	5 + 1*1	5 = 30 + 15	5 + 15 = 60	hours	T = 2	*15*1,5 + 1*15	1,5 + 1*15* 90 hour	s*1,5	5 = 45 + 22,5 + 22,5 =	
	_	Total wor	doad: W +	$T = U_{opt} = 0$	50 + 90	=150 hours pe	r semester			
	By r	nastering	his course	the stude	nt will b	e able to				
	1. G	ain the kn	owiedge n	eeded to u	ndersta	ind the basic pr	incipies and	i tun	ictioning of radio	
Course aims and		Inderstand	n systems. s basic pro	bloms and	wave t	o offectively us	a RE spectri	ım ə	is a limited resource	
learning outcomes	s 2.0	cauire the	necessarv	knowledg	for th	e application of	radiocomn	nunio	cation systems in	
	various modes of traffic and transport									
	4. S	olves basio	problems	of traffic e	nginee	ring in radio coi	nmunicatio	n sy	stems	
Prerequisites	The	re are no s	pecial con	ditions						
Teaching methods	s lect	ures, audit	ory exercis	ses, labora	tory exe	ercises, consulta	ations			
	1. lr reco 2. D	ntroduction ommendat ivision of r	n to radio d ions. adio fregu	communica ency spect	itions. I rum an	nternational Ra	idio Regulat ndividual Rf	ions ⁻	s. ITU-R nds.	
	3. R	. Radio connection model. Calculation of basic radio connection parameters. Ways of								
	pro	ropagation of radio waves: surface, ionospheric, spatial waves, scattering.								
	4. R	egulatory	aspects in [•]	the field of	radio d	communication	s. RF spectr	um r	nanagement.	
	Tari	ffing of the	e RF spectr	um.						
	5. T	raffic engi	neering in I	adio comr	nunicat	ion systems. Tr	affic measu	rem	ents and traffic	
	pro	files. Mode	els for calcu	ulating the	require	ed capacity in ra	dio commu	inica	tion systems. Multi-	
Course content	serv	lice traffic	models.	otrum uco	Dupar	nic accord to th	o cooctrum			
		colloquiun	n oi ne spe	cti uni use	. Dynai		e spectrum	•		
	8. R	adio comn	unication	services.						
	9.0	peration o	f radio cor	nmunicatio	on syste	ems in traffic an	d transport			
	10.	Wireless c	ellular com	imunicatio	n syste	ms in traffic and	l transport.			
	11.	Wireless a	d-hoc netv	vorks in tra	ffic and	l transport.				
	12.	Wireless s	stems for	short rang	e in tra	ffic and transpo	ort.			
	13.	Satellite ra	dio-comm	unication s	ystems	in traffic and t	ransport.			
	14. Systems for positioning and tracking of objects in traffic and transport.							t.		
	15.	n conoquit	1111	Toyth	ook (c)	· · · · · · · · · · · · · · · · · · ·				
Author/9	5		Name	of publica	tion n	ublisher	Year		Pages (from-to)	
	-	Radi	o Wave Pr	opagation	for Tel	ecommunicatio	on			
H.Sizun		Appl	ications, Si	pringer			2004.			
W. Webb		Wire	less Com y & Sons	municatio	ns: Th	e Future, Joł	ⁱⁿ 2007.			
				Addition	al read	ings	•			

Author/s		Name of publication, editor	Yea	r	Pages (from-to)	
S. A. Kyriazakos Karetsos	, G.T.	Practical Radio Resource Management in Wireless Systems, Artech House	2004			
Горан Марковић		Основи телекомуникационих система, Саобраћајни факултет Београд	система, 2012			
		Assesment methods		Poir	nts	Percentage
	Pre-exa	n obligations				
		attendance at lectures / exe	5		5%	
		positively graded seminar	15		15%	
Evaluation critoria		Colloqu	15		15%	
Evaluation criteria		Colloqu	15		15%	
		lab. exe	10		10%	
	Final exa	am				
			oral	40		40%
	IN TOTA	L		100		100 %
Web sources						
Applicable from	16.06.20 Traffic E	021 175th session of the Teaching-Scientific Counci ngineering	l of the	Facul	ty of Tr	ansport and

		Pi	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic						- South	
Course title			TCYCIE	INTRODU	JCTIO	N TO INFORMA	TION THE	ORY		
Department		Departm	ent of Infoi	rmation - Co	ommui Traffic	nication System Engineering in	ns in Traffic Doboj	c, Fac	ulty of	Transport and
C	ode		Course status Semester			ter		ECT	'S credits	
САФ11СТ07	7235265,	0211	r	equired		VI	VI 5.0			
Professor/s	Ass	ociate Pro	fessor Alek	sandar Stjer	panovi	С				
Associate/s	Weekly h	ours		Individu	ual stud	dent hours (pe	er semester	r) Student workload		
L	TE		LE	L		TE	LE			So
2	1		1	30		15	15			1,5
Total teach W = 2*15	er worklo + 1*15 +	oad (hours, 1*15 = 30	per semes + 15 + 15 -	ter) 60	T =?	Total student $\sqrt{15* S_0 + 1*15}$	workload (h 5* So + 1*1	nours	, per s	emester) + 15 + 15 = 90
<u>vv - 2 13 </u>	· I IJ 7	Total work	load: W + '	 T = Uopt = F	50 + 90	= 150 hours n	er semeste	r 50	, - 50 -	. 12 - 12 - 20
Course aims and	1. A 2. T	 Acquiring basic knowledge of information theory and coding theory To acquaint students with the sources of information 								
learning outcom	3. Introduction to information transmission channels.									
	4.1 5 F	Rasic conce	nts of erro	r probability	unity co v theor	Juing				
Prerequisites	The	ere is no pr	ior conditio	nality	y theor	y				
Teaching metho	ds Lec	tures. audi	torv exerci	ses. laborat	orv ex	ercises				
Course content	1. I 2. C 3. S 4. I 5. S 6. T 7. E 8. S 9. E 10. 11. 12. 13. 14. 15. pro	 Introduction to information theory. Definition of information and amount of information Sources of information. Discrete and continuous sources of information Information transmission channels. Discrete sources with memory Statistical and security coding. The concept of entropy and own information Baud rate and channel capacity Shannon's source and channel coding theorems Basics of coding a discrete source of information Data compression Methods of construction of efficient compression codes Block codes, convolution codes. Security encryption Probability of error and basis of theory Basic application of information theory in cryptography. An overview of line coding 								
Author	r/s		Name	of publicat	ion, pu	ublisher	Yea	ır	Pa	ges (from-to)
Drajic D, Iv	/anis P	Intro	duction to	o Informatio	on The	ory and Codir	^{ng,} 200	9		•
				Birty Delbrat						
				م ما ما : 4: م م	ا بمديا	220				
Author	r/s		Nam	Auditiona	ation	editor	Voo	r	Pa	ges (from_to)
Aution	./ 5		Nafi		ation,		Tea	••	Fd	
Evaluation criter	ria Pre	e-exam obli	As gations	ssesment m	nethod	S		Poir	nts	Percentage

	TE Attendance at lectures / exercises	5	5%
	Positively graded seminar paper	15	15%
	Colloquium 1	15	15%
	Colloquium 2	15	15%
	LE	10	10%
	Final exam	40	40%
	SUM	100	100%
Web sources			
Applicable from	06/16/2021 - 175th session of the Teaching-Scientific Council of the	Faculty of T	ransportation

Set T WCTOWNO			UNIVERSITY OF EAST SARAJEVO					2005
.18.		F	aculty of	Fransport and Tra	affic Engineering		Ś	adrea the state
SAC 82°		0	Study program: Traffic					
1775 4570 JO	III	Pr	ofile: Teleo			AOE0J		
Course title	- 		TCYCIE	STATISTICAL T			NS	
		Departm	ent of Info	rmation - Comm	inication System	is in Traffic.	Faculty	of Transport and
Department				Traffic	Engineering in I	Doboj	,	
	Code		Co	urse status	Semest	er	EC	CTS credits
САФ11СТО)7235365,	0211		required	V			5.0
Professor/s	Ass	ociate Prof	essor Alek	sandar Stjepanov				
Associate/s								
	Weekly hours Individual student hours (per sem					semester)	Stu	udent workload coefficient So
L	TE		LE	L	TE	LE		S ₀
2	1		1	45	22,5	22,5		1,5
			_		Total student w	vorkload (ho	urs. per	r semester)
Total teac	her worklo	bad (hours,	per semes	ster) T = 2	2*15*1,5 + 1*15	*1,5 + 1*15	*1,5 = 4	5 + 22,5 + 22,5 =
W = 2*15	6 + 1*15 +	1*15 = 30 -	+ 15 + 15 =	60	·	90		
		Total work	load: W +	T = Uopt = 60 + 9	0 = 150 hours pe	er semester		
	1.1	ntroductio	n to the mo	odel of telecomm	unication syster	n		
	2.1	To acquaint	students v	with the statistica	al approach in th	e analysis of	telecon	mmunication
Course aims an	d sig	nals and lin	ear telecoi	mmunication syst	tems.			
learning outcou	mes 3.1	To provide t	heoretical	bases for solving	g practical proble	ems in the fi	eld of m	nodern
	tele	ecommunic	ation syste	ems.				
	4.1	ntroductio	n to rando	m processes in co	mmunications			
	5. E	Basic conce	pts of prob	bability theory wi	th application in	telecommu	nication	1S
Prerequisites	The	ere is no pri	or conditio	onality				
Teaching meth	ods Leo	tures, audi	tory exerci	ses, laboratory e	xercises			
	1.1	ntroductio	n. General	model of telecon	nmunication syst	tem		
	2.0		n of messa	iges and signals				
	3.0	Jotorminist	ic and stor	shastic approach	is colving comm	unication nr	oblome	
	5 6	Pererminist Pandom nro			in solving comm	unication pi	obients.	•
	6.6	Review of h	asic conce	nts of probability	theory and appl	lication to te	lecomm	nunication
	sig	nals and sve	stems					lancation
	7. 9	Spectral and	alysis of rai	ndom processes				
Course content	8. 9	, Stationary a	, nd ergodio	random process	ses			
	9. E	Brief overvi	ew of spec	tral analysis of pe	eriodic and aperi	odic signals.		
	10.	Relationsh	ip betwee	n the transmissio	n function of a li	near comm	unicatio	n system and
	the	spectral ch	naracterist	ics of a signal.				
	11.	Detection	of binary s	ignals in the pres	ence of noise.			
	12.	Small Rang	ge Commu	nications. Fundar	mentals of radar	systems		
	13.	Probability	ot error in	n digital modulati	on procedures			
	14.	Detection	of telecom	imunication signa	antoin turner (troff:-		
	15.	runctional	communi	Toythook (certain types of	traffic		
Auth	Author/s Name of publication, publisher Vear Page							Pages (from-to)
Autho	5175	Statistical theory of telecommunications an						
Georg	Georgije L							
				,,,				
				Additional read	dings			
Autho	or/s		Nam	ne of publication	, editor	Year	P	Pages (from-to)

		Assesment methods	P	oints	Percentage					
	Pre-exar	n obligations								
	TE Atter	dance at lectures / exercises		5	5%					
		15	15%							
Evaluation criteria	Colloqui	um 1		15	15%					
	Colloqui	um 2		15	15%					
	LE			10	10%					
	Final exa	am		40	40%					
	SUM			100	100%					
Web sources										
Applicable from	06/16/2	021 - 175th session of the Teaching-Scientific Counc	il of the Fa	aculty of T	ransportation					

			Pr	UNIV Faculty of T Sofile: Teles	TRANSPORT Transport a Study prog communic	EAST S and Tra gram: T ations	SARAJEVO Iffic Engineering Traffic and postal traff IV year of stu	g fic		AOEOJ		
Course title				TUYLIE								
Department		Der	artme	nt of Acco	unting Au	diting :	and Business Fi	nance - EDE	Riio	liina		
Department		Dep	artine		unting, Au	uning			Dije	ijina		
	Code			Cou	urse status	5	Semes	ter		ECTS credits		
САФ11СТ()7135475,	0220		0	bligatory		VII			5.0		
Professor/s	Phi	PhD Slobodan Subotić, Associate Professor										
Associate/s												
	Weekly hour				Individ	ual stu	dent hours (pe	r semester))	Student workload coefficient S _o		
L	TE			LE	L		TE	LE		So		
2	2			0	45		45	0		1.5		
Total teac W = 2*15 +	her worklo 2*15 + 0*	oad (ł 15 = 3	nours, 30 + 30	per semes 0 + 0 = 60	ter) hours	T = 3	Total student v 2*15*1,5 + 2*1	workload (h 5*1,5 + 0*1 hours	ours 5*1,	s, per semester) ,5 = 45 + 45 + 0 = 90		
		Tota	l work	oad: W +	I = Uopt =	60 + 90	0 = 150 hours p	er semester	ſ			
Course aims ar learning outco	 a. Ability to independently analyze the financial operations of the postal company. b. Ability to independently: analyze the financial operations of the postal company. control and improvement of financial services provided by PTT organizations to users, for their own account and in their own name, and for the account and on behalf of other financial organizations. Introduction to: financial instruments and financial market, international financial flows and electronic business. Acquiring basic knowledge of financial flows in the fields of public, banking, monetary, international, business finance and performing financial and monetary transactions in postatraffic 						company. of PTT organizations; ions to users, for half of other nal financial flows Iking, monetary, ansactions in postal					
Prerequisites	No	speci	ial con	ditions .								
Teaching meth	ods Leo	tures	s, audit	ory exerci	ses, semin	ar pape	er					
Course content	1. F 2. E the 3. F 4. C 5. F 6. L 7. F 8. T 9. C 10. 11. 12. 13. 14. 15.	 Finance as a scientific discipline Basic characteristics of monetary, banking, public, international and business finance and their importance and impact on the operations of postal organizations Financial markets and institutions Development of banking and monetary affairs Funding rules Liquidity of postal organizations Financial instruments and financial flows (First colloquium) The role of the Central Bank Domestic and international payment transactions and payment systems Payment operations performed by postal organizations Monetary business services for individuals and legal entities Accounting and treasury operations in postal organizations Electronic business Electronic data processing in the field of payment transactions 										
					Text	book (s)			D (())		
Autho	or/s		F .	Name	of publica	tion, p	ublisher	Yea	r	Pages (from-to)		
Šarac Dragana			Finar FTN I	isijsko pos Novi Sad	iovanje u	postan	skom saobračaj	ju, 2014	4			
Kovačević Ljub	omir, Vui	njak	Upra	vljanje fin	ansijama	preduz	eća, Saobraća	jni 2009	9			

Nenad		fakultet Do	boj							
			Additional	readings						
Author/s		r	Name of publica	tion, editor		Yea	r	Pages (from-to		
Mikerević Dragan		Finansijski menadžment, Ekonomski fakultet Banja Luka								
Plakalović Novo		Monetarna	ekonomija, Ekor	nomski fakult	et Pale	2004				
			Assesment me	ethods			Poi	nts	Percentage	
	Pre-exa	Pre-exam obligations								
			10		10%					
Fueluetien eriterie		positively evaluated seminar paper							10%	
Evaluation criteria	colloquium						30		30%	
	Final exa	Final exam								
		oral							50%	
IN TOTAL							100)	100 %	
Web sources										
Applicable from	16.06.20 Traffic E)21 175th s ngineering	session of the Te	aching-Scient	tific Counci	l of the	Facu	lty of Tr	ansport and	

UNIVERSITY OF EAST SARAJEVO								AIRE PAR		
			Faculty Of	Study proc	anu n aram:	Traffic	5		John	
82°			Profile: Tele	communic	ation	s and postal traf	fic		C N	ADEDI
1 OF 635 53			I cycle			IV year of stu	ıdy			Hono,
Course title					QU	ALITY MANAGE	MENT			
Department										
	Code		Co	urse statu	S	Semes	ter		ECTS	credits
САФ11СТ(0710467	5,0220		required		VII				5,0
Professor/s	A	sociate	e Professor Živk	o Erceg						
Associate/s										
	Weekly hours Individual student hours (per s				r semeste	·)	Stude	efficient So		
L	T		LE	L		TE	LE			So
2	2		0	45	r	45	0			1,5
lotal teac	her wor	kload (r	iours, per seme	ester)	т.	lotal student	workload (hou	rs, per se	mester)
VV - 2°1	5 + 2 15		al workload: W	- 00 + T = 11ant =	= 60 +	$= 2^{-1} 13^{-1} 3 + 2^{-1} 3$	$15^{-}1,5^{+}0^{-}$	15 ·	1,5 – 45 ·	+ 45 + 0 - 90
	C	mpleti	ng this course of	students w	ill be a	ble to:	i semest	-1		
	1.	unders	tand the dema	nds of user	rs of p	roducts and serv	vices in the	con	text of th	e needs in the
Course aims a	nd m	odern v	way market,							
learning	2.	use an	d apply differei	it approaci	nes, m	odels and metho	ods of mea	sure	ment and	d quality
outcomes	3	develo	n and apply sp	ecific qualit	tv mar	agement model	s in real te	rms	of husine	200
	4.	manag	e the resource	s more effe	ctivel	y in its managem	ent in real	bus	iness con	iditions,
	5. achieves a more successful communication (internal and external).								,	
Prerequisites	N	o prere	quisites							
Teaching methods	Le	ctures,	auditory exerc	ises, semin	iar wo	rk				
	1.	History	/ of developme	nt of qualit	y mar	agement				
	2.	Quality	/ and standardi	zation. Mo	del of	quality manager	ment syste	m		
	3.	Unders	standing quality	/. The conc	ept ar	nd definitions of	quality			
	4.	Qualita	stand the conte	e and quai	ity ma	nagement ition Deming's k	ev to unde	rcta	nding the	organization
	6	Ouality	/ management	systems	gamza	ition. Denning 3 k	ey to unue	ista	nung the	5 organization
	7.	I colloc	quium	-,						
Course conter	nt 8.	Total C	Quality Manage	ment (TQN	1). Mo	dels of excellenc	ce			
	9.	Integra	ted Managem	ent System	S					
	10). Quali	ty system acco	rding to ISC) 9000 ion	: 2015				
	11	D. Proce P. Risk a	nalvsis Risk as	sessment r	ion netho	ds				
	13	B. Meth	ods and tools o	of quality	netho					
	14	I. Meth	ods of measuri	ng custom	er sati	sfaction				
	1	5. II coll	oquium							
	,			Te	xtboo	k			-	
Auth	or/s		Nam	e of public	ation,	, publisher	Yea	ar	Page	es (from-to)
Bobrek, M., M	Bobrek, M., Milekić, M., Quality management (Integrated management							1 204		
Macanović, K.			Transport and	Traffic En	gineer	ing	, 2014	•	1 204	
Todorović, Z.			Quality Mana	gement, Fo	aculty	of Economics Ba	<i>nja</i> 2009)	1-234	
			LUKU	Additio	nal re	adings	I			
Auth	or/s		Na	me of pub	licatio	n, editor	Yea	ar	Page	es (from-to)
Zivkovic, Z., Dj	ordjevic	P	Quality Mana	gement, Te	chnic	al Faculty Bor	2013		1-471	
Evaluation			ŀ	ssesment	meth	ods		Po	oints	Percentage

criteria	Pre-exam obligations									
	Presence of lectures / exercises 10 10 %									
	Seminar work 20									
	Colloquium	2x35	70 %							
	Final exam									
	Final exam (oral)									
	TOTAL	100	100 %							
Applicable from	16.06.2021. – 175. session of the Teaching-Scientific Council of the F	aculty of Tra	insport and							
	Traffic Engineering									

		Pi	UNIV Faculty of ⁻ Strofile: Teles	ERSITY OF Transport a Study prog communice	EAST S and Trai ram: Tr ations o	ARAJEVO ffic Engineering raffic and postal traff	iic dv		Contract		
Course title			reycie	THE	ORYO	F AUTOMATIC					
Department		Departme	ents of Aut	omation ar	nd Robo	otics - ETF East S	Sarajevo				
Co	de		Coι	urse status Semester					ECTS	5 credits	
САФ11СТ0711007	7,0321		0	bligatory		VII		7,0			
Professor/s	PhD) Miroslav	Kostadinov	ić, associat	te profe	essor					
Associate/s									Churche		
w	eekly h	ours		Individ	ual stu	dent hours (per	semester)	Stude	efficient So	
L	TE		LE	L		TE	LE			So	
3	2	2 1 60 40				20			1,33		
Total teache W = 3*15 +	r worklo 2*15 + 1	oad (hours, 1*15 = 45 +	per semes · 30 + 15 =	ter) 90	T = 3*	10tal student w *15*1,33 + 2*15	orkload (n 5*1,33 + 1* 120	iours *15*:	, per se 1,33 = 6	mester) = 60 + 40 + 20 = 60 + 40 + 20 = 60 + 20 = 70 + 20 = 70 + 20 = 70 + 20 = 70 + 20 = 70 + 20 + 20 = 70 + 20 + 20 = 70 + 20 + 20 = 70 + 20 + 20 + 20 = 70 + 20 + 20 + 20 + 20 + 20 + 20 + 20 +	
	٦	Total workl	oad: W + T	' = Uopt = 9	90 + 120) = 210 hours p	er semeste	er			
Course aims and learning outcome	1. lı 2. S s 3. S 4. C	 Introducing students to concepts and knowledge in the field of automatic control theory. Students will learn and master the knowledge in the field of systems control, System stability and performance, Conventional industrial regulators. 						trol theory.			
Prereguisites	Doe	es not have									
Teaching method	s Lec	tures, theo	retical exe	rcises, sem	inary w	vork					
Course content	1. T 2. T 3. S 4. L 5. II 6. T 7. I 8. P 9. P 10. 11. 12. 13. 14. 15.	 The concept and definition of automation. Control systems The concept of open and closed control system. Control laws Solving differential equations. General solution, aspect of control theory Laplace transform. Laplace transform properties Inverse Laplace transform The transfer function of electrical networks. Graph of signal flow I colloquium Poles and Zeros of the transfer function. Determination of system response Process classification and system errors I Problem setting and stability condition Algebraic stability criteria Frequency stability criteria H colloquiums 									
Author	's		Name	of publica	tion. pi	ublisher	Yea	r	Pag	es (from-to)	
Stojić, N	1.	Cont	inuous Aut	tomatic Co Book, Be	ntrol Sy	stems, Scientif	ic 1990	Э.			
Kostadinović, M	, Đurić,	S. Aut	omatic Co. and T	ntrol Theor raffic Engi	ry Facu neering	lty of Transport Doboj					
				Addition	al readi	ings					
Author	s		Nam	e of public	ation,	editor	Yea	r	Pag	es (from-to)	
			A	ssesment r	nethod	ls		Poi	nts	Percentage	
Evaluation criteri	a Pre	-exam obli	gations								
					Atter	nding lectures /	exercises	10		10%	

	Seminar papers	20	20%
	Colloquium 1	10	10%
	Colloquium 2	10	10%
	Final exam		
	Final exam (oral/written)	50	50%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

	Faculty of Profile: Teleo I cycle	ng 	A DE LA DE L				
Course title				MOBILE		ATIONS	
Department	Depart	ment of Teleo	communica	ations E	TF East Saraje	vo	
Code		Cou	Course status			ster	ECTS credits
САФ11СТ07110)177,0321	0	bligatory		VI	I	7,00
Professor/s	PhD Mirko	Stojčić, assista	ant profess	or			
Associate/s							
Wee	kly hours		Individ	ual stu	dent hours (pe	er semester)	Student workload coefficient S _o
L	TE	LE	L		TE	LE	So
3	2	1	60		40	20	1,33
Total teacher w W = 3*15 + 2*15	/orkload (hou + 1*15 = 45 +	rs, per semes 30 + 15 = 90	ter) hours	T = 3'	Total student *15*1,33 + 2*:	workload (hou 15*1,33 + 1*15 120 hours	irs, per semester) 5*1,33 = 60 + 40 + 20 =
	Total w	orkload: W +	T = U _{opt} = 9	0+120	= 210 hours p	oer semester	
 Course aims and learning outcomes analyzes and compares the performance of different technologies in mobile communication systems and selects appropriate technology for specific applications in the 3. plans and designs the necessary capacities of the mobile network, independently proposes solutions for the application of mobile communication system various types of traffic. 					communication mobile c applications in traffic, munication systems in		
Prerequisites	There are n	o special cond	ditions				
Teaching methods	Lectures, au	ditory exerci	ses, labora	tory ex	ercises, consu	ltations	
Course content	 There are no special conditions Lectures, auditory exercises, laboratory exercises, consultations 1. Evolution of mobile communication systems. Basic components of a mobile commun system. Cellular organization of mobile communication systems (mega, macro, micro, p and femto cells). 2. Cellular system capacity and ways to increase capacity. 3. Public mobile communication systems and their applications in traffic. Basic function characteristics of GSM, UMTS and LTE cellular systems. Mobile WiMAX systems. 4. Functional systems of mobile communications in traffic (TETRA system). Mobile ad-h networks (MANET) and their applications in the vehicle environment (VANET). 5. Satellite (global) mobile communication systems with traffic applications. 6. Propagation models and phenomena in the mobile radio channel. 7. (I colloquium) 8. Elements of traffic engineering in mobile communication systems. Characterization of traffi flows. Traffic measurements. Traffic intensity. Traffic profiles. Determining the period of traffic load. Loss of traffic. Erlang's model. Engset's model. 10. Dimensioning of the required capacities for packet switched traffic and traffic based circuit switching. Network resource optimization. 11. Service quality management in mobile communication systems. 12. Tariffing of mobile communication services. 13. Mobile service traffic forecasting. 14. Trends in the development of next generation mobile communications systems (56 						

Author/s		Name of publication, publisher	Yea	r	Pag	ges (from-to)	
Gospić, N., Tomić, I., Popović, D., Bogojev	ić, D.,	Razvoj mobilnih komunikacija: od GSM do LTE, Univerzitet u Beogradu – Saobraćajni fakultet, Beograd	2010				
M Stasiak, M. Głąbowski, A. Wiśniewski, P.Zwierzykowski		Modelling and Dimensioning of Mobile Wireless Networks: From GSM to LTE, John Wiley & Sons	2010				
		Additional readings					
Author/s		Name of publication, editor	Yea	r	Pag	ges (from-to)	
		Assesment methods		Poi	nts	Percentage	
	Pre-exam obligations						
		attendance at lectures / exe	5		5%		
		positively graded seminar	15		15%		
Fuch setion ententie		Colloq	uium 1	15		15%	
Evaluation criteria		Colloquium 2				15%	
		lab. ex	ercises	10		10%	
	Final ex	am					
			oral	40		40%	
IN TOTAL						100 %	
Web sources							
Applicable from	16.06.20 Traffic E	021 175th session of the Teaching-Scientific Councing	il of the	Facu	lty of T	ransport and	

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						South and a start and a start and a start a st
)	Pr	ofile: Tele	communicatio	ns a	Ind Postal Traf	fic		AOEOJ
Course title			i cycle	Δ.	TIF		ENCE		
Department		Departme of East Sa	ent of com rajevo	puters, inform	atio	n technologies	and biotech	nnolo	ogy, ETF, University
c	Code		Course status Semeste			ter		ECTS credits	
САФ11СТ0	7135576,	0311	m	andatory		VII			7,00
Professor/s	Ph.	D. Gordana	Jotanovic	, Assistant Pro	fess	or			
Associate/s									Charlen to a suble sub
	Weekly h	ours		Individual	stud	dent hours (pe	r semester)		coefficient So
L	TE		LE	L		TE	LE		So
3	1	1/1	1	45		15	15		1.2
l otal teach W	er worklo = 3*15 + 3	bad (nours, 1*15 + 1*1	per semes 5 = 75	iter)		T = $3*15*S_0 +$	vorkload (ho 1*15*S _o + 1	ours, .*15	, per semester) *S _o = 75 S _o =90
		Total wo	rkload: W+	$T=U_{opt} = 75 + 7$	75 =	150 hours per	semester		
Course aims and learning outcon	 and and and and and and because of a structure of the structur								
Droroquisitos	4. I	neoretical	basis of fu	zzy logic and a	ррп	cations.			
Teaching metho	ods Ora	No Oral presentation, illustrative-demonstrative method, analysis and synthesis, practical							
Course content	1. eng 2. tra 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	 Historical overview, basic concepts and application of artificial intelligence in tra- engineering. The concept of the artificial intelligence system (with a view to the application traffic engineering). Knowledge representation methods: declarative, procedural and semantic. The problem of the knowladge transformation. State-space. Search methods: breadth first search, depth first search and combined search. Formalization of reasoning and inference systems. Predicate calculus. Colloquium 1 Resolution. Unification and unification algorithms. Resolution method. Fuzzy logic and fuzzy logic controllers. Mamdani and Sugeno fuzzy inference systems. Introduction to Artificial neural networks. Introduction to Probabilistic computing. 						Intelligence in traffic to the application in d semantic. Ibined search.	
				Textbool	k (s)				
Autho	or/s	A	Name	of publication	1, pl	iblisher	Year	•	Pages (from-to)
Petar Hot	tomski	Artifi Sad,	cial intellig Technical I	ence Systems Faculty "Mihaj	, Un lo Pi	iversity of Nov upin" Zrenjanii	ו 1 2006	;	
Ivana Be	rkovic	Elements of Artificial Intelligence, University ofkovicNovi Sad, Technical Faculty "Mihajlo Pupin",2006Zrenjanin2006							
Stuart J. Russell Norvig	tuart J. Russell and PeterArtificial Intelligence, A Modern Approach,2010JorvigPrentice Hall								
				Additional re	eadi	ngs			
Autho	or/s		Nam	e of publication	on, o	editor	Year		Pages (from-to)

	Assesment methods	Points	Percentage				
	Pre-exam						
	attendance at lectures	10	10%				
	practical (laboratory) exercises	10	10%				
Evaluation criteria	Colloquium 1	15	15%				
	Colloquium 2	15	15%				
	Final exam						
	oral exam	50	50%				
	TOTAL	100	100%				
Web sources							
Applicable from 06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Traffic Engine Doboj							

				UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering					John h	DO 5 AIRE DAST
				Study program	n: Tre	affic	(* <u>.</u>			
24 AV 1 AV)	PI	ofile: Tele	communicatio	ons a	na postal traj	ric du			AOEOJ
Course title			Тсусіе	ORGANIZ	ΔΤΙΟ			= 6		
course title		Departme	ent of Tran	sport Engineer	ring -	- Faculty of Tra	insport and	LJ I Traffi	ic Engi	neering
Department		Doboj			8					
C	Code		Со	urse status		Semes	ter		ECTS	credits
САФ11СТО	7104585,	0220	obligatory VII				5.00			
Professor/s	Phi	D Perica Go	jković, tull	protessor						
Associate/s									Chuda	
,	ours		Individual	stud	ent hours (pe	r semester))	coe	efficient So	
L	TE		LE	L		TE	LE			So
2	2		0	45		45	0			1.5
Total teach	ner worklo	oad (hours,	per semes	ter)	T	Fotal student v	vorkload (h	ours, p	per se	mester)
W = 2*15 + 2	2*15 + 0*	15 = 30 + 3	0 + 0 = 60	hours T	1 = 2'	*15*1,5 + 2*1	5*1,5+0*1	.5*1,5	= 45 +	- 45 + 0 = 90
		Total work			00 -	150 hours no	nours			
	Dv/	mostoring t		$I = U_{opt} = 60 +$	$\frac{90}{10} =$	able to:	ersemester			
	Бу 1 1	earn the ha	sic concen	the student w	tion	as well as type	es and orga	nizatio	nal m	odels of
	ent	ernrises.			cion,	us wen us type		mzatic		00013 01
Course aims and	d 2. v	will be able	to analvze	the organizati	ion o	of large busines	s systems.	busine	ess an	d
learning outcon	nes dev	elopment	policy and	development	facto	ors;				-
Ŭ	3. i	ndependen	tly organiz	e and lead a m	neeti	ing according t	o defined r	ules;		
	4. a	acquired kn	owledge ir	n practice to ap	oply a	and establish t	heir own co	ompar	ny as v	vell as to give
	inst	tructions to	others on	how to do it;						
Prerequisites	The	ere are no s	pecial con	ditions						
Teaching metho	ods Lec	tures, audi	tory exerci	ses, consultati	ions					
	1.1	The concept	t and deve	lopment of the	e org	anization				
	2.1	2. Types of organizational structure								
	3.0	3. Organizational models of the company								
	4.0	Organizing large pushess systems Organizational models of transport companies								
	5.0	 Organizational models of transport companies Business and development policy 								
		 business and development policy Characteristic husiness factors (Leolloquium) 								
Course content	7. C	Basic metho	nds and tec	hniques for or	otimi	ization				
	9.0	Organizatio	nal culture							
	10.	Organizati	on of busir	ness functions						
	11.	Business in	formation	systems						
	12.	Organizati	on control.	Organizing a r	meet	ting				
	13.	Organizati	on and ma	nagement of ir	nvest	tments				
	14.	Organizati	on design.	Organizationa	l trar	nsformation of	the compa	any		
	15.	II colloquiu	Im							
				Textbook	k (s)				_	
Autho	NL O	Name	of publication	n, pu	blisher	Yea	r	Page	es (from-to)	
Vesovic, B. V., E	sojovic, J.	N., Orga	nizacija sa	opracajnih pre	eduze	eca, Saobračaj	ⁿⁱ 2007.			
Knezevic, LJ. N.		таки	tet, Beogra	du, Additional re	aadir	205				
Autho	r/s		Nam	e of nublicatio	on e	ngs oditor	Vea	r	Page	es (from-to)
Autio			Nall		511, e		ied	•	rage	
				-						
Evaluation crite	ria		A	ssesment met	nods	S		Poin	ts	Percentage
	Pre	e-exam oblig	gations							

	attendance at lectures / exercises	10	10%						
	colloquium 1	40	40%						
	colloquium 2	20	20%						
	Final exam								
	oral	30	30%						
	IN TOTAL	100	100 %						
Web sources									
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and Traffic Engineering							

Set Y NCTOWO			UNIVERSITY OF EAST SARAJEVO						2005 NNNH 04	
.18			Faculty of Transport and Traffic Engineering						Sever No 22	
			Study program: Traffic							
10 K3 45 K2 40	III -	P	rofile: Tele	communicati	ons (ana postal traj	riC dv		doeoj	
Course title			i cycle		ITED					
Course title		Donartm	ont of com	nutors inform	NIER		and history	hnal	ogy ETE University	
Department		of East Sa	arajevo	puters, inform	natio				ogy, ETF, Oniversity	
	Code		Co	urse status		Semes	ter	ECTS credits		
САФ11СТС	7109985	,0311	m	andatory		VIII			5,00	
Professor/s	Ph	.D. Gordan	ana Jotanovic, Assistant Professor							
Associate/s										
	Weekly ł	nours		Individua	l stu	dent hours (pe	r semester)		Student workload coefficient S₀	
L	TE		LE	L		TE	LE		So	
3	1		1	30		15	15		1,5	
Total teac	her workl	oad (hours	per semes	ster)		Total student v	vorkload (ho	ours	, per semester)	
W = 2	2*15 + 1*3	15 + 1*15 =	= 60 hours	-		T = 2*15*S _o +	1*15*S _o + 1	*15	*S _o = 90 hours	
		Total wor	kload: W +	$T = U_{opt} = 60$	+ 90	= 150 hours pe	r semester			
	1.	Students ne	eed to learr	n about ways	to co	ommunicate usi	ing Internet	teck	nnologies.	
Course aims an	2. i	Students ne	ed to learr	n about Interr	net p	rotocols and se	rvices.			
learning outcou	3.1	3. Students should gain knowledge about Internet security and data security.							rity.	
4. Students should learn about the use of the Interne						he Internet and	d mobile de	vice	s in the traffic	
		engineering	; domain.							
Prerequisites	Ba	sic knowled	lge in the fi	ield of Compu	iter r	networks.				
Teaching meth	ods Or	al presenta	tion. Labor	atory exercise	es: U	se of HTML and	l CSS langua	ige.		
	1.	Intro	duction of	Internet Tech	nolo	gy.				
	2.	Туре	s of commu	unication usin	ng the	e Internet.				
	3.	Appl	Application layer protocols.							
	4.	TCP /	TCP / IP protocols (IP, ARP, ICMP, UDP, TCP).							
	5.	IPv4	and IPv6 (a	dvantages an	d dis	advantages).				
	b.	Inter	Application of Internet and mobile devices in the domain of traffic engineering WAP							
	/.	Appi Appi	d. GPRS and SMS.							
Course content				•						
	0. Q	W/FR	WEB application development technologies.							
	10	Mark	Marker languages (HTML, XHTML, XML).							
	11	. Scrip	Script languages.							
	12	. Inter	Internet security and data security.							
	13	. Acce	Access control. User authentication.							
	14	. Cryp	Cryptography. Digital signature.							
	15	Colloquiu	m 2							
				Textboo	ok (s)	1				
Autho	or/s		Name	of publicatio	on, pi	ublisher	Year		Pages (from-to)	
Andrew S. Tane	nbaum	Com	puter netw	vork, Mikro kr	njiga,	, Beograd,	2005	5		
		Serb	ia.							
				ructure: Netv	vorki	ng, web				
Richard Fox and	serv	ices, and cl	oud computir	ng. C	RC Press. Boca	2018	5			
Comer 5 D	Rato	n, FL, USA.	a with TOD UD	Dat	nting	2042	,			
Comer, E. D.		Inte	networkin	g with TCP/IP	, Pre		2013	5		
Autha	or/s		Nam	Additional I	ion	editor	Vear		Pages (from to)	
Autho	51/5	W/ok		e or publicat	ign f	oundations wit	th		rages (ITOIII-10)	
Terry Felke-Mo	rris		115 Rth adi	tion Dearson	יאי ה ווא	hoken LISA	2016	5		
losh Hill i Jamo	A Brann		11516920	hrilliant CET		JUNETI, UJA.	2011			
JOSHTIMTJaille			1231 (333)	ormant, CET			2011	-		

	Assesment methods	Points	Percentage					
	Pre-exam							
	lectures / exercises attendance	5	5%					
	project task	15	15%					
Fueluetien eriterie	Colloquium 1	15	15%					
Evaluation criteria	Colloquium 2	15	15%					
	lab. exercises	10	10%					
	oral exam	40	40%					
	TOTAL	100	100%					
Web sources								
Annlinghla from	06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Traffic Engineering in							
Applicable from	Doboj							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic							A050J		
Course title			I cycle	DE	AL TINA	I year of stu					
Course title		Departm	ant of Auto	RE mation an	d Robot	E COMPUTER	Sarajevo				
Department		Departing				lles - ETF East .	Salajevo				
	Code		Cou	Course status Semester			ster		ECTS	credits	
)7135686,	0311				VIII			E	.00	
Professor/s	Pn.	D. Mirosiav	/ Kostadino	OVIC							
Associate/s									Studo	nt workload	
	Weekly h	ours		Individ	ual stu	lent hours (pe	er semeste	r)	coe	fficient S _o	
L	TE		LE	L		TE	LE			So	
3	1		1	2		1	1			1,5	
Total teac	her worklo 3*15 + 1* 20+ 11	bad (hours, 15 + 1*15	per semes = W	ster)		Total student ب 3*15*1,5	workload + 1*15*1,	hours 5 + 1*	, per sei 15*1,5 = 0 b	nester) = T	
	50+1.	5+ 15- 001	I Tota	al workload	1· 60 + 0	4 <u>-</u> 0 –150 h	J=ZZ,J=ZZ	.,5 – 9	011		
	11	ntroducing	students t	o the conc	ents an	d knowledge i	n the field	of dig	ital man	agement	
	SVS	tems.	Students t		epts an	a knowledge i	in the netu	or uig		agement	
Course aims an	d 2.5	students wi	ll get acqu	ainted and	master	the knowledg	e in the fi	eld of	constru	ction.	
learning outcom	mes stru	ucture, app	lication of	digital con	trol syst	ems, with the	character	istics o	of the		
_	mic	crocontrolle	er platform	-							
	3. N	Microproce	ssor contro	ol systems	and Ma	tlaba.					
Prerequisites	Do	es not have	2								
Teaching meth	ods Leo	tures, audi	tory exerci	ses, semin	ar pape	r					
Course content	2. F 3. F 4. E of e 5. F out 6. F 7. F 8. (9. N 10. 11. for 12. 13. 14.	 Problems of real-time systems. History. Real-time system classifications. Applications. Real-time system specification and design. Final state machine. Embedded computer systems. Comparisons of different real-time systems on the example of embedded mobile robotic platforms and the automotive industry. Real time system hardware. Digital inputs / outputs. Analog inputs / outputs. Pulse inputs / outputs. Real time clock. Real-time operating system (RTOS). Process scheduler. Call systems. Interrupt-driven systems. Multitasking systems. (I colloquium) Mutual exclusion of processes. Communication between tasks. Real-task programming languages. Hardware and software integration. System management concept. System configuration. Introduction to SCADA systems, divisions and architecture of SCADA systems as a system for monitoring and acquisition of data in real-time systems. Hardware and software components of SCADA system. Examples of application. Problems of communication within the real-time management system. 									
		in conoqui		Text	ook (s)						
Autho	or/s		Name	e of public	ation, p	ublisher	Y	ear	Page	es (from-to)	
Stolic	M	Со	ntinuous au	utomatic co	ontrol s	ystems, Scient	ific 1	200			
3000				book, B	elgrade		I;				
2. Ковачевић Б		Signa	als and Syst	ems, Акаде	мска ми	сао, Београд,	200	7.			
				Addition	al readi	ngs			-		
Autho	or/s		Nar	ne of publ	ication,	editor	Y	ear	Page	es (from-to)	
Evaluation crite	eria		A	ssesment	method	S		Poi	ints	Percentage	

	attendance at lectures and exercises	10	10%					
	seminar papers	20	20%					
	I colloquium	l colloquium 10 10%						
	10	10%						
	Final exam							
	final exam (oral / written)	50	50%					
	IN TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering					

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic					A DEDJ	
Course title			I cycle	MI		IV year of stu			
course title		Dena	artment of Infor	mation - C	Ommu	nication System	ns in Traffic	Fac	ulty of Transport and
Department		Depe			Traffic	Engineering in	Doboi	., 1 ac	
Co	ode		Cou	irse status		Semest	ter		ECTS credits
САФ11СТ07	210585,	0211		elective		VIII			5.0
Professor/s	Ass	ociate	Professor Aleks	andar Stje	panovi	С			
Associate/s									
Weekly hou				Individ	ual stu	dent hours (pe	r semester)	Student workload coefficient S ₀
L	L TE		LE	L		TE	LE		So
2	1		1	45		22,5	22,5		1,5
Total teache	er workle	oad (ho	ours, per semes	ter)		Total student v	vorkload (h	nours	, per semester)
W = 2*15 +	+ 1*15 +	1*15 =	= 30 + 15 + 15 =	60	T = 2	*15*1,5 + 1*15	*1,5 + 1*1	5*1,5	5 = 45 + 22,5 + 22,5 =
_							90		
		Total N	workload: W + 1	= Uopt = (60 + 90	= 150 hours p	er semeste	r	
	1. F	or coll	laborative intera	actions wit	h techr	nologies of mod	dern multin	nedia	communications
Course aims and	2. 5	micien	it presentation,	processing	g and ci	reation of mult	imedia app	licati	ons
learning outcom	es 3. F	vuolity	of sorvice in m	a uata in ti ultimodia c	ranspor	nications			
		Juanty	nmont of multir	nodia ann	ication	for transport	nurnasas		
Proroquisitos	J. L	ro is n	o prior conditio	neula appi	Ication		purposes		
Teaching method			auditory evercio	as Jahora	toryay	arcisas			
Teaching method	1 T	tures,	additory exercis	edia and n	nultime	dia communic:	ation in tra	nsno	rt
	2 1	2. Multimedia elements - digital text, sound, audio, video							
	3 (3. Creating multimedia applications for transportation							
	4. N	4. Multimedia data mining							
	5. N	5. Multimedia communications: models, user and network requirements							
	6. N	Nultimedia web applications - integration with GIS							
	7. P	rocessing of multimedia signals: audio and video coding techniques							
Course contout	8. 0	8. Distributed multimedia systems and their application in systems for monitoring and							
Course content	con	controlling the transport of goods and passengers							
	9. N	Multimedia on the Internet							
	10.). Multimedia communication standards							
	11.	Netwo	orks with univer	sal multim	iedia ad	ccess			
	12.	Netwo	letworking of multimedia communication systems						
	13.	Qualit	y of service in n	nultimedia	comm	unications			
	14.	Auton	natic image reco	ognition an	nd trans	sport applicatio	ons		
	15.	Audio	and video com	pression m	nethods	5			
								Deges (from to)	
Author	/5		Multimodia		nicatio		rea		Pages (Irom-to)
Bojkovic Z,Milo	vanovic	D, .	Techniques St	commu andards a	nd No	tworks Prenti	15. CO 200	2	
K.Rac)		Hall	anualus d	nu ne	works, rienti	200	~	
<u> </u>			Multimedia	elecomm	Inicatio	ons. Grafo-Ž	ig.		
Jevtovic	M		Belgrade				200	4	
Banjanir	n M	(Communication	with clien	ts, DisF	ublik, Belgrade	200	8	
. ,				Additiona	al read	ings			
Author	/s		Nam	e of public	ation,	editor	Yea	r	Pages (from-to)

		Assesment methods	Ρ	oints	Percentage					
	Pre-exar	Pre-exam obligations								
Evaluation criteria	TE Atter	idance at lectures / exercises		5	5%					
	Positive	y graded seminar paper		15	15%					
	Colloqui	um 1		15	15%					
	Colloqui	um 2		15	15%					
	LE			10	10%					
	Final exa	am		40	40%					
	SUM			100	100%					
Web sources										
Annelias bla fram	16.06.20	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and								
Applicable from	Traffic E	ngineering								

Ser V WCTOWNOU			UNIV	ERSITY OF EA	ST S	ARAJEVO			E.	005
.18.			Faculty of	ransport and	Ira Tra	ffic Engineerin	g		Capet.	A A A A A A A A A A A A A A A A A A A
			S Drofile: Telev	scuay program communicatio	n: 11 200 c /	rajjic and postal trat	ffic			
1013 4500 30 Miles)/		l cycle		///3 (IV year of stu	udv			40E0J
Course title			reycie	DISTRIB	UTE		A SYSTEMS	;		
-		Depa	rtment of Infor	mation - Com	mu	nication Syster	ns in Traffic	, Fac	ulty of ⁻	Fransport and
Department		·		Tra	offic	Engineering in	Doboj	,	,	·
	odo		Cou	urco status		Somo	tor		ЕСТО	crodite
	Jue			inse status		Semes	ster		ECIS	scients
САФ11СТ07	7235785,	0211	6	elective		VIII		5.0		
Professor/s	Ass	sociate l	Professor Aleks	sandar Stjepa	novi	С				
Associate/s									<u></u>	
۱.	Weekly hours Individual student hours (per semes					er semester)	Stude	ent workload	
1	TE		IF		—	TE	IF		100	So
X	Y	V 7		۲ ۲*15*Տօ		Y*15*S ₀	 7*15*So			30
Total teach	er workle	oad (ho	urs, per semes	ter)		Total student	workload (h	ours	, per se	mester)
X*1	5 + Y*15	+ Z*15	= W hours	,		X*15*S _o + `	Y*15*S _o + Z	*15*	$S_o = T h$	ours
		Tot	tal workload: V	V+T=U _{opt} = +	- =	hours per s	emester			
	1. /	Acquirin	ng basic knowle	edge of distrib	ute	d systems				
Course aims and	- 2. A	Analysis	s of distributed	multimedia s	yste	ms				
learning outcom	3.1	ntroduo	ction to distrib	uted applicati	ons.					
	4.1	. Introduction to content delivery networks								
	5.1	ntroduc	ction to conten	it search syste	ems					
Prerequisites	The	ere is no	o prior conditio	nality						
Teaching metho	ds Leo	ctures, a	auditory exercis	ses, laborator	y ex	ercises				
		ntroduc	ction to multim	iedia systems	~ ~ ~	toma				
	2.1	Distribu	uted multimedia	a applications	sys wit	h application in	traffic			
	4	4. Visual content search systems								
	5.1	5. Multimedia content search model								
	6.1	6. Interactivity								
	7.1	7. Network hypermedia systems								
Course content	8.1	8. Multimedia development tools								
	9.1	9. Multimedia presentation tools								
	10.	Modeli	ing of multime	dia traffic						
	11.	Media	for the transm	ission of infor	mat	ion in multime	edia system	S		
	12.	Multim	nedia systems a	and networkir	ng					
	13.	Search	i knowledge ba	ses multimedia si	ادمت	c				
	14.	Multim	nedia annlicatio	ons on the An	droi	s d nlatform				
		interent		Textboo	k (s)					
Autho	r/s		Name	of publication	n, pi	ublisher	Yea	r	Pag	es (from-to)
				Internet	,					
			https://docpla	ayer.net/6133	261	2-Distribuirani	-			
Othe	rs		mult	imedijalni-sis:	tem	i.html				
			D. Cvetkov	ić, D. Markov	ić, N	. Savanović,				
			Multimedija	a, Singidunum	i, Be	ograd, 2015.				
A	rla		Norre	Additional r	eadi	ings oditor	Var	-	Dec	oc (from to)
Autho	1/5		inam	e of publicati	on,	eultor	rea	r	Pag	es (from-to)
				<u> </u>		•				-
	. —		A	ssesment met	thoc	IS		Poi	nts	Percentage
Evaluation crite	ria									

Web sources							
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and						
	Traffic Engineering						

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Telecommunications and postal traffic								
24.3 KS 4.5 KS 4.5 KS)	Pr	ofile: Tele	communico	ations d	IV year of st	iffic tudy		40E0J	
Course title			reycie	DESI	GN OF	INFORMATIC	N SYSTEMS			
Department		Departme	ent for Com	nputer and	Inform	ation Science	s and Bioinfo	rmatics, Fa	culty of	
Department		Electrical	Engineerin	g East Sara	ijevo					
C	Code		Coι	urse status		Seme	ester	ECTS	S credits	
САФ11СТО	7208685,	0211		elective		VI	II	5.00		
Professor/s Zeljko Stjer			ović, PhD, a	associate p	rofesso	or				
Associate/s								Churde		
	Weekly h	ours		Individ	ual stu	dent hours (p	er semester)	coe	efficient So	
L	TE		LE	L		TE	LE		So	
2	1		1	45		22.5	22.5		1.5	
Total teach	ner workle	oad (hours.	per semes	ter)		Total student	workload (h	ours, per se	mester)	
W = 2*15	+ 1*15 +	1*15 = 30 +	· 15 + 15 =	60	T = 2'	*15*1,5 + 1*1	5*1.5 + 1*15	*1.5 = 45 +	22.5 + 22.5 =	
		Tatal ward			0 . 00	150 havena m	90			
	1 0	Iotal Work		$I = U_{opt} = 6$	$\frac{90 + 90}{910 + 90}$	= 150 nours p	er semester	icture of the	oinformation	
Course aims and learning outcon	d nes 5.5 5.5 5.5 5.5 5 5.5 5 5 5 5 5 5 5 5	 Students will be introduced to the methodology of information systems development Students will be able to define project requirements related to business in a transport company During the teaching activities, students will be introduced to certain examples related to the design of information systems Students will get acquainted with the methodology of development of project tasks related to the business of the transport company 								
	to	the busines	s of the tra	insport con	npany					
Prerequisites	The	ere are no f	ormal cond	ditions						
Teaching metho	ods Leo ser	tures, class ninar paper	room exer s related t	cises and c o the desig	onsulta n of inf	itions. Learnir ormation syst	ng and indepo tems in traffi	endent prep C	paration of	
Course content	1. f tra 2. 1 3. 0 info 4. [ma 5. 1 6. f tra 7. f info 8. l 9. f me 10. me 11. 12. 13. ana 14. [seminar papers related to the design of information systems in traffic 1. Basics of information system. Data and information. Information and decision makin traffic. 2. Traffic information systems. Evaluation of information system in transport companie 3. Character and development of computer technology. Introduction of computers in the information system of the transport company. 4. Domains of information technology application. Transactional data processing. Traffic management information systems. 5. Traffic decision support system. Expert systems 6. Project management. Characteristics of the project of information system development traffic. 7. Participants in the information system development project. Reasons for starting an information system development project in transport companies. 8. Il colloquium 9. Resistance to information system automation life cycle methodology. Data model methodology of prototype development. Object-oriented methodology. Structural methodology. 11. Features and problem of structural methodology in traffic. 12. Information system research. Preparation of a feasibility study in transport companies. System analysis. External design. Internal design. Module programming 14. Methods and techniques for designing information systems in transport companies. 								
		Textbook (s)								
-----------------------	-----------------------	---	-----------	------	-----------	--------------				
Author/s		Name of publication, publisher	Yea	r	Page	es (from-to)				
Rade Stankić		Design of Information Systems, Faculty of 202 Economics in Belgrade		2013						
		Additional readings								
Author/s		Name of publication, editor	Yea	r	Page	es (from-to)				
Dr Željko Stjepanović		Skripta, Projektovanje informacionih sistema, Saobraćajni fakultet Doboj	2014	4						
		Assessment methods		Poi	nts	Percentage				
	Pre-exa	m obligations								
		attendance at lectures / ex	5		5%					
		positively graded seminar	15		15%					
Fuch setion enitorie		Colloq	15		15%					
Evaluation criteria		Colloq	15		15%					
	lab. exercises					10%				
	Final exa	am								
			oral	40		40%				
	IN TOTA	L		100)	100 %				
Web sources										
Applicable from	16.06.20 Traffic E)21 175th session of the Teaching-Scientific Counc ngineering	il of the	Facu	lty of Tr	ansport and				

		UNIV Faculty of Profile: Tele	LOGOJ			
Course title		l cycle		IV year of	study	
Department	Dep	artment of Marl	cs in Brcko			
Cod	e	Cou	urse status	Ser	nester	ECTS credits
САФ11СТ0720	3885,0211		electoral		VIII	5.00
Professor/s Associate/s	Associate	e Professor Zivko	o Erceg			
We	ekly hours		Individua	al student hours	(per semester)	Student workload coefficient So
L	TE	LE	L	TE	LE	So
2	1	1	45	22.5	22.5	1.5
Total teacher W = 2*15 + 1	workload (ł *15 + 1*15	nours, per seme = 30 + 15 + 15 =	ster) = 60	T = 2*15*1.5 + 1	*15*1.5 + 1*15 90	5*1.5 = 45 + 22.5 + 22.5 =
Course aims and learning outcomes	By master 1. Talks 2. Unde 3. Iden- busir 4. Anal- trans- plan 5. Iden- that complete No prece	ring this course about strategic erstands postal t tify, analyze and ness functions, yzes operationa slated into direc ning and develo tifies and descri affects manage petitiveness in t	the student and operation traffic managed l describe the l planning as tions of active pment of the bes the element, as well he internation	will be able to: ional managemen gement, e organizational s a process by wh vity, and identifie e post office, nents and role of l as the essential onal environment	nt as areas of st structure of the ich goals and st s conditions and the economic, p characteristics	udy, post office and its rategic plans are d guidelines for successful political and social system of governance and
Teaching			coc loborate		aultations	
methods Course content	Lectures, 1. The of 2. Man 3. Strat 4. Busin 5. Strat 6. Type 7. Orga 8. Desig 9. Infor	auditory exerci concept and dev agement system regic manageme ness and develo regy of postal tra- s of organization nizational mode gning the organi	ses, laborato relopment of ins int pment policy affic compan nal structure els of postal o zation of the r needs	f organization and f organization and ies companies (I colle e company	sultations d management oquium)	

	10. Defir	10. Defining and providing relevant information by hierarchical levels of management										
	11. Busir	ness information system										
	12. Man	agement of the postal traffic company										
	13. Organization and management of investments in postal traffic											
	14. Orga	14. Organization of postal companies										
	15. Pers	15. Perspective of the development of postal traffic (II colloquium)										
	Textbook (s)											
Author/s		Name of publication, publisher	Yea	r	Pages (from-to)							
Vešović, V.		Traffic Management, Faculty of Transport and Traffic Engineering, Belgrade 1996. 1-284										
Lončarević,	ć, R. Management, Singidunum University, Belgrade 2007. 1-41											
lovičić M		Management - principles and functions, Faculty	2012	,	1-344							
5001010, 101		of Business Economics Bijeljina	2012		1 344							
Mišić B		Management – principles, concepts and	2010	2010 1-569								
		processes, Singidunum University, Belgrade	2010	,.	1-505							
		Assesment methods		Points	s Percentage							
	Pre-exam	obligations			•							
		Presence of lectures / exe	rcises	5	5%							
		Seminar	work	15	15%							
Evaluation		Colloqu	ium 1	15	15%							
criteria		Colloqu	ium 2	15	15%							
		laboratory exe	rcises	10	10%							
	Final exa	m										
		Final exam	(oral)	40	40%							
TOTAL 100 %												
Applicable from	16.06.20	21. – 175. session of the Teaching-Scientific Council c	of the F	aculty o	of Transport and							
	Traffic En	gineering										

INFORMATICS IN TRAFFIC

				1 Soften I	A 1111 @ 45 1010	4				
and the second			Study program: Traffic Profile: Informatics in traffic						AOEO1	
Ordinal		Code	Course title	Course status	Prerequisites	Semester	L	Fund classe TE	of es LE	ECTS
	<u>I</u>		<u>L</u>	<u>L</u>						
28.	САФ11СИ	107135856,0311	Computer organization and architecture	0		V	3	1	1	6.00
29.	САФ11СИ	107135956,0311	Programming languages	0		V	3	1	1	6.00
30.	САФ11СИ	107115356,0311	Computer networks and internet protocols	0		v	3	1	1	6.00
31.	САФ11СИ	107108757,0321	Digital Techniques	0		V	3	2	1	7.00
32.	САФ11СИ	107114955,0311	Information systems	0		V	3	1	1	5.00
33.	САФ11СИ	107114867,0330	Object-oriented programming	0		VI	3	3	0	7.00
34.	САФ11СИ	107121966,0311	0		VI	3	1	1	6.00	
35.	САФ11СИ	107102565,0320	Basics of marketing	0		VI	3	2	0	5.00
	САФ11СИ	107236065,0211	1. Machine learning	_		VI				5.00
36.	САФ11СИ	107236165,0211	2. Fuzzy systems	E2	E2 1		2	1	1	5.00
37.	CAФ11CИ07236265,0211 and communication systems			VI	2	1	1	5.00		
	САФ11СИ	107208365,0211	2. Internet marketing	-		VI				
38.	САФ11СИ	107132962,0000	Professional practice	0		VI	0	0	0	2.00
					T	OTAL:	28	14	8	60
			IV year of study				-	-	-	
39.	САФ11СИ	107135577,0321	Artificial intelligence	0		VII	3	2	1	7.00
40.	САФ11СИ	107114777,0321	Database	0		VII	3	2	1	7.00
41.	САФ11СИ	107108675,0211	Design of information systems	0		VII	2	1	1	5.00
42.	САФ11СИ	107115475,0220	E-business	0		VII	2	2	0	5.00
43.	САФ11СИ	107115776,0311	Software engineering	0		VII	3	1	1	6.00
44.	САФ11СИ	107109985,0311	Internet technologies	0		VIII	3	1	1	5.00
45.	САФ11СИ	107135686,0311	Real-time computer systems	0		VIII	3	1	1	6.00
46.	САФ11СИ	107104585,0220	Organization of traffic companies	0		VIII	2	2	0	5.00
47.	САФ11СИ	107209685,0211	1. Expert systems	E4		VIII	2	1	1	5.00
	САФ11СИ	107236485,0211	2. Knwoledge based systems	-						
48.	САФ11СИ	107236385,0211	1. Customer relations management	E₅ VIII		VIII	2	1	1	5.00
40		107215985,0211	2. Enterprise resource management			1/111	_	2	0	4.00
49.	CAΨΙΙC/	107105284,0030	Graduate thesis	U		VIII	U	3	U	4.00
					т	DTAL:	25	17	8	60

• L - lectures

TE - theoretical exercises
LE - laboratory exercises

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic									
10 66 698 4 C			I cycle III year of study								
Course title			COMPUTER ORGANIZATION AND ARCHITECTURE								
Department		Departr	ment of Com	puter and I	nforma	ation Science a	Ind Bioinforr	natio	cs ETF East Sarajevo		
	Code		Cou	Course status Semester		ster		ECTS credits			
САФ11СИС	7135856,	0311	Ma	anadatory		VI			6,00		
Professor/s	Pro	of. dr Željl	ko Stojanov, a	associate p	rofesso	or					
Associate/s											
	Weekly h	ours		Individ	ual stu	dent hours (pe	er semester)		Student workload coefficient So		
L	TE		LE	L		TE	LE		So		
3	1		1	45		15	15		1,2		
l otal teach W	1er worklo = 3*15 + 1	oad (hour 1*15 + 1*	rs, per semes *15 = 75	ter)		Total student ' T = 3*15*So +	workload (h 1*15*So + 1	ours 15	, per semester) *So = 75 So=90		
		Total v	vorkload: W+	-T=U _{opt} = 75	i + 75 =	150 hours per	semester	-			
	1.5	Students	should acqui	re knowled	lge of t	he layered arc	hitecture of	mod	lern computer		
	sys	tems.									
Course aims an	d 2.5	Students	should acqui	re knowled	lge of c	omputer data	representat	ion.			
learning outcor	nes 3. S	students	should acqui	re knowled	lge abo	ut how to run	a program o	n a o	computer.		
	4. 5	students :	snould acqui	re knowled	ige abo	ut the use of a	i set of asser	nbly	instructions for a		
Proroquisitos	No	ected mit	roprocessor	system.							
Teaching meth	nds Lec	tures La	horatory exe	rcises							
Teaching mean	1.1	ntroducti	ion to compu	iter system	S.						
	2.1	Numbers	and number	systems. R	eprese	nting numbers	s in a compu	ter. (Coding.		
	3. (Drganizat	ganization of computer systems. Microprocessor.								
	4. 0	Operating	rating memory.								
	5. 5	Secondary	idary memory.								
	6. 0	Computer	uter buses.								
	7.1	colloqui	um.								
Course content	8. L	ogical ba	isics of comp	uter opera	tion.						
	9. L	evel of d	igital logic.	. Comunit	المعاد الملا						
	10.	Compina	ation networi	ks. Sequent	tial net	WORKS.					
	11.	Instructi	on Set Archit	ecture leve	uters. I for In	tel Pentium 4	micronroces	sors			
	13.	Assembl	v language le	evel.			inici oproces				
	14.	Linking,	loading, and	executing	orograr	ns.					
	15.	II colloq	uium		_						
				Textb	ook (s)						
Autho	or/s		Name	of publica	tion, p	ublisher	Year	r	Pages (from-to)		
Andrew S. Tane	nbaum	Co knj	mputer archi jiga. Belgrad.	tecture an Serbia.	d orgar	nization. Mikro	2007	<i>.</i>			
		Со	mputer orga	nization an	d archi	tecture: A					
William Stalling	c	pro	oject in the fu	unction of p	perforn	nance.	2013	ξ			
winan Junig	-	Tra	anslation of t	he 9th edit	ion. CE	T. Belgrade.	201.	-			
		Sei	rbia								
		Int	roduction to	assembly I	anguag	ge programmir	ng				
Željko Stojanov		tor	Intel X86 MI	computer	Jahora	tory University	2016	j.			
		of	Novi Sad Ter	chnical Fac	ultv "M	lihailo Punin"	у				
						and the second second					

		Zrenjanin. Serbia.								
		Additional readings								
Author/s		Name of publication, editor Ye			Pages (from-to)					
Kip R. Irvine		Assembly language for x86 processors (8th edition). Pearson Education, Inc., Upper Saddle 2019. River, New Jersey, USA.								
		Assesment methods		Poi	nts	Percentage				
	Pre-exa	n obligations								
		Colloq	uium 1	30		30%				
Evaluation criteria		Colloq	30		30%					
	Final exam									
		Writter	n exam	40		40%				
	TOTAL			100)	100%				
Web sources										
Applicable from	16.06.20 Traffic E	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and Traffic Engineering								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic							
2 15 4.500 30 400			I cycle			III year of stu	ıdy		40E0J
Course title				PF	ROGRA		GUAGES		
Department		Departme Traffic En	ent of Infor gineering i	mation - Co n Doboj	ommur	nication System	ns in Traffic,	Facı	ulty of Transport and
Co	de		Сон	urse status		Semester			ECTS credits
САФ11СИ07	135956,	0311		0		V			5,00
Professor/s	PhD) Vladimir E	Brtka						
Associate/s									Church and an address of
w	/eekly h	ours		Individu	al stu	dent hours (pe	r semester))	coefficient So
L	TE	TE LE L TE				LE		So	
3	1		1	45		15	15		1,2
Total teache W = 3*15 + 1*	er worklo 15 + 1*1	oad (hours, 5 = 30 + 15	per semes 5 + 15 = 75	ter) hours	T =3*2	Total student v L5*S ₀ + 1*15* :	workload (h S₀+ 1*15* S hours	ours ₀ = 45	5, per semester) 5 + 15 + 15 =75 S₀= 90
		Total wo	rkload: W+	T=U _{opt} = 60	+ 90 =	150 hours per	semester		
 1. Students acquire theoretical and practical knowledge and skills for using programming languages. 2. Students will be able to identify which of the many programming languages to use depending on the problem to be solved and the area of application. 3. Students will be able to apply the acquired knowledge to clearly define the problem and how to solve it in the Python programming language. 4. Students will be able to apply the acquired knowledge to clearly define the problem and how to solve it in the Python programming language. 							ng programming Jages to use e the problem and e the problem and		
Prerequisites	Nor	ne			0	0 0			
Teaching method	ls Lec	tures, labo ependent c	ratory exei levelopme	rcises, comp nt of practio	outer c cal tasl	lassroom exerc ‹s.	cises and co	nsult	tations. Learning and
Course content	1. N 2. T pro 3. P 4. P 5. C 6. C 7. F 8. C 9. J 10. 11. 12. 13. 14. 15.	 Motivation, introduction and terminology. Program paradigms. Types of programming languages - structurally oriented, object oriented, functional programming, logical programming. Python programming language, installation features and development environments. Problem identification, decomposition of problem solutions into steps. Data types, variables, operators and relations. Management structures. Data structures on Python-lists, edited n-tuples, sets, dictionaries. Functions and modules in Python. Colloquium. Java programming language, basics of object-oriented programming. Classes and instances. Data types in Java. Variables and range of visibility. Operators and relations. Management structures in Java: sequence, selection and iteration. Inheritance. Arrays one-dimensional and multi-dimensional. 							
				Textbo	ook (s)				•
Author	/s		Name	of publicat	ion, pι	ıblisher	Yea	r	Pages (from-to)
R. Cadenhead, L.	Lemay	Java, 978-8	SAMS, Ko <u>36-73103</u> 6	opjuter bibl 8-6.	ioteka	Beograd, ISB	N: 2009		
J. Chan		Learr	n Java, Cop	yright Jamie	e Chan		2016		
T. Hall, J-P Stacey		"Pyth Tim 9.	non 3 for <i>i</i> Hall and J-	Absolute Be P Stacey, IS	eginner SBN: 9	rs", Copyright 78-1-4302-163	by 2009 33-		

Additional readings										
Author/s		Name of publication, editor	Name of publication, editor Yea			es (from-to)				
Assesment methods				Poi	nts	Percentage				
	Pre-exa	n obligations								
		attendance at le	10		10%					
		attendance at ex	10		10%					
Evaluation criteria		Collo	20		20%					
		lab. ex	10		10%					
	Final exa	am								
			oral	50		50%				
	TOTAL			100)	100%				
Web sources										
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and									
	Traffic E	ngineering								

N WCTOWHO			UNIV	ERSITY OF	EAST S	ARAJEVO			2005		
	3		Faculty of ⁻	Transport a	and Trat	ffic Engineering	B		SPARAIN ONAL		
- YNC	- × 430		Study program: Traffic								
82			Pro	ofile: Inforn	natics i	n traffic					
15 4 5 Y 3 40 VAL			I cycle			III year of stu	ıdy		HOROJ		
Course title			C	OMPUTER	NETWO	ORKS AND INTE	RNET PROT	FOCOLS			
Department		Departme of East Sa	ent of com rajevo	puters, inf	ormatio	on technologie	s and biote	chnology	, ETF, University		
C	Code		Сон	urse status		Semes	ter	E	CTS credits		
САФ11СИО	7115356,	.0311	M	landatory		V		6,00			
Professor/s	Ass	sistent Proff	esor Gora	n Jauševac							
Associate/s											
	Weekly h	ours		Individual student hours (per se			r semester)	Stu	dent workload coefficient So		
L	TE		LE	L		TE	LE	So			
3	1		1	67,5		22,5	22,5		1,5		
Total teach	er workl	hours	ner semer	ter)		Total student v	workload (h	ours, per	semester)		
W = 3*15	+ 1*15 +	1*15 = 45 +	+ 15 + 15 =	75	T = 3'	*15*1,5 + 1*15	5*1,5 + 1*15	5*1,5 = 67	7,5 + 22,5 + 22,5		
W - 5 15	. 1 13 .	1 13 - 43	13 - 13 -	75			= 112,5	5			
	Т	otal worklo	ad: W + T =	= U _{opt} = 75	+ 112,5	= 187,5 hours	per semest	er			
Course aims	and ^{By}	mastering t	his course	, the stude	nt will k	be able to:					
learning outcom	nes 1. a	acquire basi	c knowled	ge of comp	outer ne	etworks and pr	otocols,				
	2. to analyze the performance of computer networks and telecommunication protocols.								protocols.		
Prerequisites	NO										
Teaching metho	bas Leo	tures and la	aboratory	exercises							
	1.0	Liassificatio	n of compl	uter netwo	rks.						
		opologies o	f protocolo	er network	S.	of lavorad stru	cturing				
	3. L		otworks (I		Jucept	of layered stru	cturing.				
	4.1	Stochastic a	nd dotorm	inistic mot	hads of	modia accoss	control (NAA				
	5.5	Basics of Eth	nu ueterni pornot tock	nnistic met	nous oi	media access		λC).			
			n	mology.							
Course content	8.1	Vetwork lav	er on the l	Internet							
course content	9.1	Pv4 and IPv	6.								
	10.	Mobile IP.									
	11.	Basic algor	ithms and	protocols of	of unica	ist routing on t	he Internet				
	12.	Transport	layer on th	e Internet.		0					
	13.	Email syste	em archite	cture and V	www k	basics.					
	14.	SNMP man	nagement f	functions a	nd arch	itecture.					
	15.	II colloquiu	um								
				Textb	ook (s)						
Autho	or/s		Name	of publica	tion, pu	ublisher	Year	r P	ages (from-to)		
A.Tanenbaum, I	D. Wethei	rall. Rašu Beog	narske m rad	nreže, V	izdanj	e, Mikroknjig	^{ga,} 2012				
W. Stallings		Com Pren	puter Net tice-Hall, Ir	working W nc.	/ith Int	ernet Protoco	ls, 2009				
S. Bigelow		Raču popr	nartske n avljanje, N	nreže, ins 1ikroknjiga,	taliranj , Beogra	e, održavanje ad	i 2004				
Additional readings											
Autho	or/s		Nam	ne of public	cation,	editor	Year	r P	ages (from-to)		
									_		
Evaluation crite	ria _		A	ssesment	method	IS		Points	Percentage		
	Pre	e-exam oblig	gations								

	attendance at lectures	5	5%
	Seminary paper	15	15%
	I Colloquium	15	15%
	II Colloquium	15	15%
	laboratory exercises	10	10%
	Final exam		
	Writing exam	40	40%
	TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	e Faculty of	Fransport and

ALCONTONIO			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						2005 Stana 188 044		
	2 Cart			Study progra	m: Tro	affic	5		e 🖌 👔		
82°C			Profile: Tele	communicati	ons a	nd postal tra	ffic				
15 4.503 40 1.4	/		I cycle III year of study						Road		
Course title					DIGI	TAL TECHNIC	QUE				
Department		Departr	nents for ele	ctronics and	electr	onic systems	- ETF East Sa	iraje	2VO		
	Code		Cou	ourse status Semester		ster		ECTS credits			
САФ11СИ07108	3757,0321		0	bligatory		V			7,00		
Professor/s	Phi	D Mirosla	v Kostadinov	ić, associate	profes	ssor					
Associate/s									Charlent and all a set		
	Weekly h	ours		Individua	l stud	ent hours (pe	er semester)		coefficient So		
L	TE LE L TE				TE	LE	So				
3	2		1	60		40	20		1,33		
W = 3*15	5 + 2*15 +	bad (hour 1*15 = 45	s, per semes + 30 + 15 = 9	ter) O	ا T = 3*	otal student 15*1,33 + 2*15	workload (hd 5*1,33 + 1*15*	5urs 1,33	= 60 + 40 + 20 = 120		
		Total wor	kload: W + T	= Uopt = 90	+ 120	= 210 hours	per semester	-			
	By	mastering	g this course	students sho	uld ac	quire knowle	edge in:				
Course aims an	d 1.6	Basics of I	ogic circuits	and logic ope	ratior	IS.					
learning outcor	$\operatorname{mes} \left \begin{array}{c} 2.5 \\ 3 \end{array} \right $	Standard Vrithmoti	complination	networks.							
	3. A	Programn	nable logic st	ructures							
Prerequisites	The	ere is no r	prior condition	onality							
Teaching metho	ods Lec	tures, the	eoretical exe	rcises, labora	tory e	xercises					
	1.1	ntroducti	on. Switchin	g algebra							
	2. E	Basic logio	c circuits and	logic operati	ons						
	3. 5	Switch Functions and Switch Networks									
	4. 9	standard	combination	networks: er	ncode	r, decoder, co	ode converte	r			
	5. 5	standard	ird combination networks: multiplexer, demultiplexer, commutator								
	6.1	Viemory o	nory circuits. Flip flops (I colloquium)								
	7.5	standard Standard	dard sequential networks: registers								
Course content	9.5	Arithmeti	c circuits: co	mnarators co	mnle	menters add	ler subtracto	nrs r	multiplication and		
	div	ision circu	uits		mpre			,,,,,			
	10.	Program	mable logic s	structures. Se	micor	nductor mem	ory				
	11.	ROM, PR	OM, and Rel	PROM memo	ries. R	AM type me	mories				
	12.	Static an	d dynamic R	AM type men	nory						
	13.	Surface I	magnetic me	mories							
	14.	A/D and	D/A convers	ion principles	5						
	15.	n conoqu	uum	Textboo	sk (c)						
Autho	or/s		Name	of publicatio	n nu	hlisher	Year		Pages (from-to)		
	-		ntegrated di	gital electron	ics. So	cientific book					
Tešíć	, S.			Belgrad	e		ý 1990				
Živković, D., Popović, M.			Ilse and Digit	al Electronics Belgrade	s, Acad e	demic Though	nt, 2004				
			Digital techr	iques, Facult	y of T	ransport and	2015				
Bundal	ο, D.		Traffic Engir	eering Doboj	j, cour	se materials	2015				
Kostadinović	M Bunda		Practicum f	or Digital Tec	hniqu	es Auditory					
D	vi., bullud	,	Exercises, F	aculty of Trai	nsport	t and Traffic	2012				
				Engineering	Doboj						
				Additional I	readir	ngs					

Author/s		Name of publication, editor	Yea	r	Page	es (from-to)
		Assesment methods		Poi	nts	Percentage
	Pre-exa	n obligations				
		Attending lectures / ex	5		5%	
		Positive evaluation of the seminar	paper	15		15%
		Colloq	15		15%	
Evaluation criteria		Colloq	15		15%	
		Laboratory ex	10		10%	
	Final exa	im				
		Ora	l exam	40		40%
	TOTAL			100)	100%
Web sources						
Applicable from	16.06.20 Traffic E	21 175th session of the Teaching-Scientific Counc ngineering	il of the	Facu	lty of Tı	ransport and

	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic					ADED J					
Course title				I CYCIE		INFO		TEMS			
course title		Der	artme	nt for Con	nuter and	Inform	nation Sciences	and Bioinfo	ormat	ics Fac	culty of
Department		Elec	lectrical Engineering East Saraievo								
С	ode			Cou	urse status	;	Seme	ster	ECTS credits		credits
САФ11СИО	7114955,	0311		со	mpulsory		VI			(5.00
Professor/s	Želj	ko St	jepano	ović, PhD, a	, associate professor						
Associate/s											
١	Neekly h	ours			Individ	ual stu	udent hours (pe	er semester)	Stude coe	nt workload fficient S _o
L	TE			LE	L		TE	LE			So
3	1			1	63		21	21			1.4
Total teach	er worklo	oad (ł	nours,	per semes	ter)		Total student	workload (h	ours,	per se	mester)
W = 3*15	+ 1*15 +	1*15	= 45 +	15 + 15 =	75	T = 3	3*151.4 + 1*15	*1.4 + 1*15	*1.4 =	= 63 + 2	21 + 21 = 105
		Tot	al wor	kload: W+	T=U _{opt} = 75	+ 105	= 180 hours pe	r semester			
Course aims and	1. S 2. S 3. S	 Students will acquire knowledge related to the structure of information systems Students will acquire knowledge related to informational system life cycle Students will acquire knowledge related to development of information systems 									
	4. S	4. Students will acquire knowledge related to business intelligence development and expert systems									
Prerequisites	No	o formal prerequisites									
Ta a shin a masha	Lec	Lectures, classroom exercises and tutorials. Studying and individual seminar papers related to									
Teaching metho	as info	ormat	tion sy	stems.							
Course content	1. li 2. T 3. li 4. S 5. C 6. T 7. C 8. C 9. C 10. 11. 12. 13. 14. 15.	 Information and business systems Technical and technological structures of information system Information systems in the Internet environment Standardization and information systems Organization and data management within information systems Types and structure of databases Development of information systems Colloquium I Design of information system An integral approach to the organization of information systems E-business in a function of information systems Analytical information systems Analytical information systems Business intelligence, expert systems and data storage 									
Autho				Nama	l extr	DOOK (S	5) Nublichor	Vaa	-	Dog	c (from to)
Autio	1/3		Infor	mation Sve	tems Fac	ulty of	Transport and	Tea		rage	
Željko Stjepanov	ić		Traffi	<u>c Engi</u> neer	ring Doboj			202	0		1 - 238
					Addition	al reac	lings				
Autho	r/s			Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)
				As	sessment	metho	ods		Poin	nts	Percentage
	Pre	-exar	n oblie	ations							
Evaluation crite	ria			, -	at	tendar	nce to lectures	/ exercises		5	5%
					se	minar	paper positivel	y assessed	1	15	15%
		seminar paper positively assessed 15 157								ı J	

	colloquium 1	15	15%						
	colloquium 2	15	15%						
	laboratory exercises	10	10%						
	final exam	40	40%						
	TOTAL	100	100%						
Web sources									
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and Traffic Engineering								

Price Sector		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic								
Course title			reycie	OBI	FCT-OR				- Contraction	
Department		Departme Traffic En	ent of Infor gineering i	mation - C n Doboj	ommur	nication System	ms in Traffic,	Faculty	of T	ransport and
c	ode		Сон	urse status		Seme	ster	ECTS credits		
САФ11СИО	7114867,	0330	0	bligatory		VI			7	7.00
Professor/s	Phi	D Ljubiša Pr	eradović							
Associate/s										
	Weekly h	ours		Individ	Individual student hours (per seme			S	tude coe	nt workload efficient S _o
L	TE		LE	L		TE	LE			So
3	3		0	60		60	0			1.33
Total teach	er worklo	bad (hours,	per semes	ter)		Total student	workload (h	ours, pe	er se	mester)
3	3*15 + 3*	15 + 0*15	= 90		3*15	*1,33 + 3*15*	[•] S _{1,33} + 0*15	*1,33 =	60 +	60 + 0 = 120
		Total workl	oad: W+T=	=U _{opt} = 90	+ 120 =	= 210 hours	per semeste	r		
	1.	1. Upon completion of the course, the student should possess theoretical knowledge and								
	pra	CTICAI SKIIIS	In object-o	priented an	alysis,	le for modelin	a and design			
Loarning outcom		. Theoretical knowledge and practical skills for modeling and design								
learning outcom	in t	in traffic								
	4 1	4. To enable the student to create a project task								
Prerequisites	The	There is no prior conditionality								
Teaching metho	ods Lec	Lectures, auditory exercises and laboratory exercises								
Course content	1. I 2. E 3. U 4. A 5. C 6. C 7. C 8. I 9. S 10. 11. 12. 13. 14. 15.	 Introduction to object-oriented languages Basic concepts, methodologies, approaches, processes, notations Unique modeling language - UML. Architecture, concepts, diagrams, models, tools. Object-oriented modeling in traffic. Object-oriented analysis Object-oriented design of systems applied in traffic. I colloquium System design. Patterns. Interface specification. Component oriented design Design of specialized software systems (real-time, client-server, distributed, web-based). Model driven software development. Design of system models in traffic. Implementation in traffic. I colloquium 								
Autho	r/s		Name	of publica	tion, pı	ublisher	Yea	r	Page	es (from-to)
Bruegge B., D	utoit A. H	l. Obje	ct-Oriente , Patterns a	d Software and Java, P	Engine rentice	ering Using Hall	2004	I.		
				Additiona	al readi	ngs				
Autho	r/s		Nam	ne of public	cation,	editor	Yea	r	Page	es (from-to)
			Α	ssesment r	nethod	ls		Points		Percentage
	Pre	-exam obli	gations							
Evaluation crite	ria			at	tendan	ce at lectures	/ exercises	5		5%
				pos	itively e	evaluated sem	ninar paper	15		15%
						1	colloquium	15		15%

	II colloquium	15	15%					
	Final exam							
	oral	50	50%					
	Total	100	100%					
Web sources								
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and Traffic Engineering							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic					Statulin arrit			
			Profile: : Informatics in traffic						40501	
Course title			I cycle		TFI	III year of stud	y 1S			
Department		Departm	ent of Infoi	rmation - Com Tra	- Communication Systems in Traffic, Faculty of Transport and Traffic Engineering in Doboi					
C	ode		Cou	urse status		Semeste	er		ECTS credits	
САФ11СИ07	7121966,	0311	r	equired		VI			6.0	
Professor/s	Ass	ociate Prof	essor Alek	sandar Stjepa	novi	с				
Associate/s										
١	Weekly h	ours		Individual	stu	dent hours (per	semester))	Student workload coefficient So	
L	TE		LE	L		TE	LE		So	
3	1		1	45		15	15		1.5	
Total teach W =	er worklo <u>= 3*</u> 15 + 1	oad (hours, <u>1*15</u> + 1*1	per semes 5 <u>=</u> 75	ter)		Total student w <u>T = 3*</u> 15*So + 1	orkload (h <u>*15</u> *So + 1	ours 1*15	s, per semester) 5*So = 75 So=90	
		Total work	load: W +	T = Uopt = 60	+ 90	= 150 hours pe	r semester	r		
	1. a	ictive know	ledge of re	egulations and	l nor	ms, European r	egulations	rela	ted to ITS	
	2. p	proposal of	solution of	f distributed in	nfori	mation and com	municatio	n sys	stems for transport	
Course aims and	l mo	nitoring								
learning outcom	ies 3.1	3. It's research and interaction with spatial information infrastructure								
	4. IIS architecture									
Prerequisites	There is no prior conditionality									
Teaching metho	ods Lectures, auditory exercises, laboratory exercises									
	1. T	raffic man	agement. T elematics s	raffic manage	emer vork	nt strategies capabilities				
	3. E	. Basic definitions of telematics. Toll collection systems								
	4. E	L European projects. Definition of ITS, Standards, norms of the directive, Legal bases, FRAME								
	pro	ject TS architecture. Theoretical foundations. Rescible applications of ITS								
	5.1	IS architec	nitecture. Theoretical foundations, Possible applications of ITS							
	0. 1 7 T	echnical n	recondition	is for the ann	licati	i and application		atics	systems	
Course content	8. 0	Detectors a	nd sensors	. Vehicle netw	vork	architecture				
	9. T	elecommu	nication ne	etworks in tra	ffic					
	10.	Spatial info	rastructure	of GIS and IT	S. IT	S and GPS. Locat	ion-based	l serv	vices	
	11.	11. Variable signaling, standards. Radio data systems								
	12.	12. Autonomous vehicles. Artificial intelligence systems in traffic								
	13.	13. Congestion management and application of ITS in congestion management								
	14.	Internet a	nd ITS.	icipants, nulli						
			-	Textboo	k (s)					
Author	r/s		Name	of publicatio	n, pı	ublisher	Yea	r	Pages (from-to)	
Stjepanovic A, K	ostadino	vic Tele	matic syste	ems, Universi	ty c	of East Sarajevo	^{),} 2020	0		
M	М		Ity of Trans	sport and Traf	fic E	ngineering	2020	-		
				Additional	eadi	ngs				
Author	r/s		Nam	e of publicati	on.	editor	Yea	r	Pages (from-to)	
					,					
Evaluation criter	ria		٨	sesment mot	hod	s		Poir	nts Percentage	
	ia		A	sesment met	mou	5		1 011	its reitentage	

	Pre-exam obligations		
	TE Attendance at lectures / exercises	5	5%
	Positively graded seminar paper	15	15%
	Colloquium 1	15	15%
	Colloquium 2	15	15%
	LE	10	10%
	Final exam	40	40%
	SUM	100	100%
Web sources			
Applicable from	06/16/2021 - 175th session of the Teaching-Scientific Council of the	Faculty of T	ransportation

	A COLOR	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							Lowen h	005	
РУИС *82°			Pro	Study prog file: Inforr	ram: T natics i	raffic n traffic					
10 4 St 3	III		l cycle	giie. injen		III year of stu	Jdy	1.		40E0J	
Course title			BASICS OF MARKETING								
Department		Departm	ent of Marl	keting and	Manag	ement, Faculty	of Econor	nics ii	n Brcko		
	Code		Cou	urse status	;	Seme	ster		ECTS credits		
САФ11СИС	07102565	.0320	0	bligatory		IV				5.0	
Professor/s	Ph	D Svjetlan	i Terzić, Ass	ociate Pro	fessor						
Associate/s									Chuda		
	Weekly hours			Individ	ual stu	dent hours (pe	er semeste	r)	coefficient So		
L	TE		LE	L		TE	LE			S _o	
3 Tatal tagal	2		0	45		45 Tatal student	U) hoolyleevy	h a		1.5	
	19 10 10 10 10 10 10 10 10 10 10 10 10 10	5ad (nours)	, per semes	ster)		T= $2*1E*C$	WOLKIOAO (⊃*1E*C ⊥		s, per se *s – oc	hester)	
VV-2	13+2 1	Total wo	- 00 Hours kload: W +	T = 11= 6	0 + 90	1-2 13 30 +	2 13 30 +	0 13 r	5 3 ₀ – 90	nours	
	1	ntroducin	students t	$r = 0_{opt} = 0$	ents in	the field of ma	arketing	1			
Course aims an	d 2.	Vecessarv	knowledge	and skills f	or defir	ning marketing	goals and	strate	egies.		
learning outcom	nes 3. 1	3. Basics of marketing management.									
-	4.	. Internet marketing									
Prerequisites	The	here are no conditions for listening and taking the course.									
Teaching meth	ods Leo	Lectures, auditory exercises, seminar paper									
	ng										
	2.	2. Basic principles of marketing 3. Development of the marketing concept									
	3.	4. Marketing categorical system									
	4.	5. Marketing mix									
	5.	6. Marketing information system and decision making									
	7.	Marketing	market. co	nsumer (L		ium)					
Course content	8.1	Marketing	environmei	nt							
	9.1	Elements o	f marketing	research							
	10.	10. Basics of marketing management									
	11.	11. Basic marketing instruments									
	12	12. Product in marketing									
	13.	Price in m	arketing	Duovostiovo		le ation a					
	14.	Internet	g channels. narketing (I		n mar m)	Keting					
	15.	interneti		Text	nook (s)						
Autho	or/s		Name	of publica	tion, p	ublisher	Ye	ar	Page	es (from-to)	
		Ma	keting – c	snov, Eko	nomsk	fakultet, Bar	nja 2000				
Macura P.		Luk	a –				2009				
				Addition	al read	ings					
Autho	or/s		Nam	ne of publi	cation,	editor	Ye	ar	Page	es (from-to)	
Milisavljević M.	, Maričić	B. Osr	ovi marketi	nga, Ekono	omski fa	ikultet, Beogra	d. 2004	-			
			A	ssesment	method	15		Po	ints	Percentage	
	Pre	e-exam ob	igations		adapas	at loctures and	Aovorcisos		2 v E	10 %	
				atter	nositive	at rectures and	inar naper		∠ ⊼ ⊃ 10	10 %	
Evaluation crite	eria				PUSICIVE	ritton evam ()			10	TO /0	
	Ei~	alavam			w	niten exami (2	conoquia)		50	30 %	
	Fin	ai exdiîî					oralevam		30	30 %	
	IN	τοται							100	100 %	
	IN								100	100 /0	

Web sources	
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and
Applicable from	Traffic Engineering

YHC I			UNIV Faculty of	ERSITY OF E Fransport an Study progra	AST S d Traf am: Tr	ARAJEVO fic Engineering raffic			Contraine orange	
			Pro	file: Informa	atics ii	n traffic			AOEOJ	
4513 40			I cycle			III year of stud	ly			
Course title		Deventure	IVIALHINE LEAKNING							
Department		Traffic En	gineering i	n Doboj	mmur	lication System	s in Traffic,	Faci	uity of Transport and	
C	ode		Coι	urse status		Semest	er		ECTS credits	
САФ11СИ07	7236065,	0211		E		VI			5,00	
Professor/s	Ph) Vladimir E	Brtka							
Associate/s									Student workload	
۱	Weekly h	ours		Individua	al stud	dent hours (per	semester)		coefficient So	
L	TE		LE	L		TE	LE		So	
2	1		1	30		15	15		1,2	
Total teach	er worklo	Dad (hours,	per semes	ter)	T_0*/	Total student w	orkload (ho	ours	, per semester)	
VV = 2 · 15 ·	+ 1 . 12 +	$\frac{1 \cdot 15 = 30 + 1}{\text{Total wo}}$	- 15 + 15 =	50 T-II 60 .	1=2 · .	$15^{\circ}.30 + 1^{\circ}.15^{\circ}.3$	0+1.12.20	= 45	5 20+12 20 + 12 20=90	
	1 5	tudents ac	nuire theo	retical and n	ractic	al knowledge a	nd skills for	wor	rk in the field of	
	ma	chine learn	ing.		actic					
	2.5	tudents wi	ll be able t	o identify ar	eas of	application of i	nachine lea	arnir	ng and select suitable	
Course aims and	l ma	machine learning algorithms.								
learning outcom	nes 3. S	3. Students will be able to apply the acquired knowledge to clearly define the problem and								
	hov	w to solve it	using exis	ting softwar	e tool	s and modules.				
	4. S	tudents wi	ll be able t	o apply their	r profe	essional knowle	dge throug	h th	e development of	
Duran mulaita a	ma	chine learn	ing applica	tions.						
Prerequisites	INO	ne turos labo	aton ovo	cicos comp	utor c	lassroom ovorsi	cos and cor	acult	tations Learning and	
Teaching metho	ds ind	ependent o	levelopme	nt of practic	al task	(S.	ses and cor	isun	tations. Learning and	
	1. N	1. Motivation, introduction and terminology.								
	2. A	2. Areas of application, possibilities and types of machine learning algorithms.								
	3. L	3. Linear regression.								
	4. L	4. Logistic regression.								
	5. A	Architecture	es of artific	ial neural ne	etwork	ks, Rosenblat's F	erceptron.			
	6. P	Perceptron	training alg	gorithm.						
Course content	7.5	Solloguium	artificial n	eural netwo	rks.					
course content	9.0	lgorithm fo	or training	single-laver:	artific	ial neural netw	orks and its	nro	nerties	
	10.	Multilaver	artificial n	eural networ	rks.			p.0		
	11.	Algorithm	for training	g multilayer a	artific	ial neural netwo	orks - Backp	orop	agation.	
	12.	Implement	ation of si	ngle-layer ar	rtificia	l neural networ	ks.			
	13.	Implement	ation of m	ultilayer neu	ural ne	etworks.				
	14.	Convolutio	nal artifici	al neural net	tworks	5.		_	.	
	15.	Practical a	oplications	of convolut	ional a	artificial neural	networks,	Tens	sorflow-Keras-Python	
	r/c		Nome	of publicati	OK (S)	hlichor	Voor		Pages (from to)	
Author	1/5	Mac	nine lear	ning Unive	ori, pu	of Novi Sa	Tear		rages (110111-10)	
Vladimir Brtka		Tech	nical Facul	tv "Mihailo F	Pupin'	. Zrenianin.	2019			
		Soft	Computine	, University	of No	vi Sad, Technica				
Vladimir Brtka		Facu	lty "Mihajl	o Pupin", Zre	enjani	n	2013			
				Additional	readi	ngs				
Author	r/s		Nam	e of publica	tion,	editor	Year		Pages (from-to)	

	Assesment methods	Points	Percentage						
	Pre-exam obligations								
Evaluation criteria	attendance at lectures	10	10%						
	attendance at exercises	10	10%						
	Colloquium	20	20%						
	lab. exercises	10	10%						
	Final exam								
	oral	50	50%						
	TOTAL	100	100%						
Web sources									
Annilian bla frans	16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transport and								
Applicable from	Traffic Engineering								

Set 7 WCTOWIG						2005 NAJHR 04			
-18-			Faculty of	I ransport and	Traffic Engineerin	Ig	Sere.	No Mart	
· 82°			Dro	stuay program filo: Informati	: Traffic				
ATS 4540 JO	I				Ill year of st	udv		40E0J	
Course title	<u> </u>		I Cycle		FU77Y SYSTEM	s			
		Departme	ent of Infor	mation - Com	nunication System	s in Traffic	Faculty of	Transport and	
Department		Traffic En	gineering i	n Doboj	numeation system	no in traine,	rucuity of	ransport and	
	Cada		6		Como	- t - <i>u</i>	БСТ	C ana dita	
	code		Col	urse status	Seme	ster	ECI	scredits	
САФ11СИ	07236165,	,0211		E	VI		5.00		
Professor/s	Ph	D Vladimir I	Brtka						
Associate/s									
	Weekly h	ours		Individual	student hours (pe	er semester) Stude	ent workload	
L	TE		LE	L	TE	LE		S _o	
2	1		1	45	22.5	22.5		1.5	
Total toac	horworkl	and (hours	norcomos	tor)	Total student	workload (h	ours, per se	emester)	
101a11eac	1*15 ± 1*'	0au (110urs, 15 – 20 ± 11	per seriles	hours T	=2*15*S ₀ + 1*15*	* S ₀ + 1*15*	S ₀ =30 S ₀ +	15 S ₀ + 15 S ₀ =	
VV = 2 15 + .	1 13+1 .	15 - 50 + 1.	5 + 15 = 00	nours		60 S0 =90 ł	nours		
		Total wo	rkload: W+	+T=U _{opt} = 60 + 9	0 = 150 hours pe	r semester			
	1. 9	Students ac	quire theo	retical and pra	ctical knowledge	and skills fo	r work in th	e field of	
· ·	ap	plication of	the fuzzy s	system.					
Course aims an		Students wi	II be able t	o recognize sit	uations when it is	convenient	to apply fu	zzy systems.	
learning outcol		Acquired pr	n be traine	knowledge wil	lenable students	to impleme	stern.	atrollers for	
	4.7	ious nurno	ses and wit	thin various re	al-life systems	to impleme	int iuzzy coi		
Prereguisites None									
	Leo	tures. labo	ratory exer	rcises. comput	er classroom exer	cises and co	nsultations	. Learning and	
Teaching meth	ods ind	lependent o	developme	nt of practical	tasks.				
	1.1	Notivation,	introducti	on and termin	ology.				
	2. 1	2. Fuzzy sets, membership functions, properties of fuzzy sets.							
	3. (Operations	on fuzzy se	ets.					
	4. 6	Fuzzy logica	I conjuncti	ons, t-norms a	nd co-norms.				
	5.6	Fuzzy propo	ositions, lin	guistic variable	s and their value	S.	_		
	6.1	-uzzy infere	ence systen	ns and fuzzy if-	then rules, gener	alized Modu	is Ponens.		
Course content		-uzzy intere	ince, intere	ence methods.					
course content	9.0	Vamdani tv	/pe fuzzy c/	ontroller					
	10.	Sugeno (T	SK) type fu:	zzy controller.					
	11.	Phase rela	tions and f	uzzy numbers.					
	12.	Implemen	tation of m	embership fur	ctions.				
	13.	.Implemer	ntation of f	uzzy logic oper	ators.				
	14.	Implemen	tation of M	lamdani fuzzy	controller.				
	15.	Practical a	pplications	of fuzzy contr	oller.				
	,			Textbook	(s)				
Autho	or/s		Name	of publication	, publisher	Yea	r Pag	es (trom-to)	
Vladimir	r Brtka	Soft Facu	Computing Ity "Mihajle	g, University of o Pupin", Zrenj	Novi Sad, Techni anin.	201	3	5 – 77	
Vladimir	r Brtka	Mac	hine Lear	ning, Univers	ity of Novi S	ad, 201	9	72 – 98	
		reen		Additional re	adings				
Autho	or/s		Nam	e of publicatio	on, editor	Yea	r Pag	es (from-to)	
					-				
Evaluation crite	eria		^	ssesment mot	nods		Points	Percentage	
	cila		A	ssesment met	1043		ronits	reitentage	

	Pre-exam obligations							
	attendance at lectures	10	10%					
	attendance at exercises	10	10%					
	Colloquium	20	20%					
	lab. exercises	10	10%					
	Final exam							
	oral	50	50%					
	TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	Faculty of Ti	ransport and					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Information technologies in traffic							200 3 5 4 1 10 11/1 0 0 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
0 6 635 V		050115	I cycle	0.075.0710		III year of st	udy			
Course title		Dopartmo	AND P	mation an	d Comp	IFURIVIATION	AND COIVIN		TION SYSTEMS	
Department		Engineering in Doboj					yorna			
	Code		Сон	urse status		Seme	ster	ECTS credits		
САФ11СИО	7236265	,0211		elective		V		5,00		
Professor/s	Ph	.D. Dragan I	Dragan Perakovic, Full professor							
Associate/s									•····	
	Weekly I	nours		Individ	ual stu	dent hours (p	er semester)	51	coefficient So	
L	TE		LE	L		TE	LE		So	
2	1		1	30		15	15		1,5	
Total teach	ner workl	oad (hours.	per semes	ter)		Total student	workload (he	ours, pe	er semester)	
W = 2*15 + 1	*15 + 1*	15 = 30 + 15	5 + 15 = 60	hours	T =2*1	L5* S₀ + 1*15*	* S₀ + 1*15* S	So = 30 S	S _o + 15 S _o + 15 S _o =	
		Tatalwa				150 hours no	90 hour	S		
	11	TOLAT WO		+T=Uopt=60	1 + 90 =	150 hours per	information	and cor	mmunication	
	1.1	vstem	als, assels	, vuillelabi	incles al		IIIIOIIIIatioii		IIIIIuiiicatioii	
	20	2.Calculate the level of threat on a certain part of the property of the communication system								
Course aims an	d 3.	3. Analyze available methods of communication system protection.								
learning outcor	nes 4.A	4.Assess the quality of the established security of the information and communication								
Ŭ	s	system.								
	5.0	Design the s	ecurity of t	he commu	inicatio	n system base	ed on availab	le mear	ns and methods of	
	F	protection.								
Prerequisites	No)								
Teaching metho	ods	Lectures, laboratory exercises, computer classroom exercises and consultations. Learning and independent development of practical tasks.								
	1.	1. Introduction, presentation of the manner of holding the teaching process, overview of the								
	ar	area of safety of information and communication systems in traffic.								
	2.6	2.Review of the application of information and communication ecosystem in the field of								
	tra	traffic and transport.								
	3.\	3. Working framework of cyber security and defining basic security terminology, division of								
	se	security according to functional groups.								
	4.F	4.Review of basic concepts and goals of communication security; privacy and trust in								
	со	mmunicatio	n.							
	5.0	Cyber securi	ty trends i	n the EU a	nd glob	ally, analysis	of the freque	ency of	cyber-attacks and	
	the	the methods and tools used to implement them.								
	6.0	6.Concepts of network communication overview of architecture, types of networks and								
Course content	7 9	NETWORK PROTOCOIS.								
	8.9	Security Sign	is and Net	work Laver	Securit	v Design.	ai Eayer ana		iyer.	
	9.9	Safety signif	icance and	safety lave	er desig	n.				
	10	.Security fea	atures and	applicatio	n layer s	security desig	n.			
	11	.Cryptology	, crypto sy	stems, cry	pto algo	orithms and c	ompression	algorith	nms and their role	
	in	the commu	nication sy	stem.						
	12	.Cyber secu	rity challer	nges in clou	ud comp	outing enviror	ments and t	ne Inter	rnet of Things.	
	13	Security th	reats and v	ulnerabilit	ies of c	ritical infrastru	ucture comm	unicatio	on systems.	
	14	Application	of artificia	al intellige	nce in p	prevention, de	etection and	protect	tion against cyber-	
	att	acks.	c .			r				
	15	.concepts	or quantu	m physics	in the	e function of	increasing	the lev	vei of security of	
	0	minumcatio	n network	э.						

		Textbook (s)				
Author/s		Name of publication, publisher	Year	r	Pag	es (from-to)
Jacobs, S.		Engineering Information Security: The Application of Systems Engineering Concepts to Achieve Information Assurance (2nd Edition), Wiley-IEEE Press, New Yersey, USA.	2016	5		
Macaulay, T.: R.		IoT Control: Understanding and Managing Risks and the Internet of Things (1st Edition), Moragan Kaufmann, Cambridge, USA.	2016	õ		
Peraković, D.		Sigurnost i zaštita informacijsko komunikacijskog sustava, Fakultet prometnih znanosti, Zagreb, 2021., nastavni tekst, publicirano u digitalnom obliku na Internet poslužitelju na adresi sustava eučenja	2022	1		
Gupta, B. B., Chaud Peraković, D., Psann	hary, P., is, K.	Privacy Concerns and Trust Issues // Managing IoT and Mobile Technologies with Innovation, Trust, and Sustainable Computing / Law, Kris MY ; WH Ip, Andrew ; Gupta, Brij B . ; Geng, Shuang (ur.)., CRC Press, Boca Raton.				
		Additional readings				
Author/s		Name of publication, editor	Year		Pages (from-to)	
François Chollet		Deep Learning with Python, Manning Publications Co. ISBN 9781617294433.	2018	3		
		Assesment methods		Poi	nts	Percentage
	Pre-exa	m				I
		lectures atten	idance	5		5%
	ļ	exercises atten	idance	5		5%
Evaluation criteria	ļ	Colloqu	uium 1	30		30%
		Lab. exe	ercises	10		10%
	Final ex	am				1
		ora	l exam	50		50%
Mah sources	TOTAL			100)	100%
web sources	06/16/2	021 Tooching Scientific Council Foculty of Transport	t and Tr	offic	Engine	oring in
Applicable from	Doboj	021 - reaching-scientific Council, Faculty of Transpor	i anu Tr	aific	Engine	

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic						Constanting out of the second		
OF CASE			l cycle			III year of stu	dy			internet in the second s
Course title										
Department	De Tra	partme iffic Enរូ	c Engineering in Doboj						ransport and	
Code			Course status		5	Semes	ter	ECTS		credits
САФ11СИ07208	3365,0211	L	Ū	elective		VI			5	5.00
Professor/s	Željko S	tjepano	ović, PhD, a	associate p	orofesso	or				
Associate/s										
Wee	kly hours	;		Individ	lual stu	dent hours (pe	r semester))	Stude coe	nt workload fficient S₀
L	TE		LE	L		TE	LE			So
2	1		1	45		22.5	22.5			1.5
Total teacher w W =2*15 + 1*	vorkload (15 + 1*15	hours, 5 = 30 +	per semes 15 + 15 =	ter) 60	T = 2	Total student v 15*1,5 + 1*1	vorkload (h 5*1,5 + 1*1 90	ours, 5*1,5	per ser 5 = 45 +	mester) 22,5 + 22,5 =
	Tota	al work	load: W +	$T = U_{opt} = 6$	50 + 90	= 150 hours pe	er semester			
Course aims and learning outcomes	 1. Students will possess basic knowledge of electronic marketing techniques 2. Students will have knowledge related to creating an internet marketing plan 3. Students will be able to apply the acquired knowledge during practical work in trans companies 4. Students will be able to enote basic elements of internet presentations 						transport			
Prerequisites	No form	nal nrei	requisites				et presente		,	
Trerequisites	Lecture	s. class	room exer	cises and o	consulta	ations. Learning	and indep	ender	nt prep	aration of
Teaching methods	seminar papers related to internet marketing in transport companies									
Course content	1. Intern 2. Deve 3. Possi 4. E-ma 5. E-sale 6. Intern 7. Resea 8. Deve 9. Creat 10. Inte 11. Inte 12. Wel 13. Con 14. Obje 15. Inte	 Internet marketing in our country and in the world Development of internet marketing in traffic Possibilities and preconditions for successful application of internet marketing in traffic E-marketing in traffic E-sales Internet marketing techniques Research of competition in traffic (I colloquium) Development of Internet marketing plan in transport companies Creating an Internet plan Internet technologies Web presentations in traffic Web presentations in traffic Concepts of internet presence Objectives of internet presence in traffic 								
		1		Text	book (s)					(())
Author/s		NAc al	Name	of publica	ition, p	ublisher	Yea	r	Page	es (from-to)
Sapic, D.		Iviark	eting na Ir			inge	2002	l		
Author/c			Nam	Addition	ai read	aditor	Vea	r	Page	s (from to)
Author/s			INdfi		cation,	cultur	Tea		rage	
		·	Α	ssesment	metho	ds		Poir	nts	Percentage
	Pre-exa	m oblig	gations							
Evaluation criteria			-	at	ttendan	ce at lectures /	exercises		5	5%
					positive	ely graded semi	nar paper		15	15%

	Colloquium 1	40	40%						
	Colloquium 2	40	40%						
	lab. exercises								
	Final exam								
	oral								
	IN TOTAL	100	100%						
Web sources			•						
Applicable from	16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering	Faculty of Tr	ansport and						

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						Solar Millio Odina
			Pro	file: Informat	tics i	n traffic	udu (AOEOJ
Course title			ARTIFICIAL INTELLIGENCE						
Department		Departme of East Sa	partment of computers, information technologies and biotechnology, ETF, University East Sarajevo						ogy, ETF, University
С	ode		Course status Semester			ter		ECTS credits	
САФ11СИО	7135577,	0321	m	mandatory					7,00
Professor/s	Ph.	D. Gordana	Jotanovic	, Assistant Pro	otess	or			
Associate/s	Neekly h	ours	Individual student hours (per se			r semester)		Student workload coefficient So	
L	TE		LE	L		TE	LE		So
3	1		1	30		15	15		1.5
Total teach W = 3	er worklo *15 + 1*1	oad (hours, L5 + 1*15 =	per semes 60 hours	ter)		Total student $T = 3*15*S_0 +$	workload (ho 1*15*S ₀ + 1	ours, *15	, per semester) *S₀ = 90 hours
		Total work	load: W +	T = Uopt = 60	+ 90	= 150 hours p	er semester		
Course aims and learning outcom	1. S 2. k 100 1. S 2. k 100 1. S 1. S	Students sh (nowladge) Declarative	ents should gain basic knowledge of intelligent systems. wladge AIS of and their application in traffic engineering. arative programing knowladge.						
Prereguisites	No	licoretical	50313 01 10		appi	cations.			
Teaching metho	ds Ora	al presentat nputer wor	ion, illustra k	ative-demons	trati	ve method, an	alysis and sy	nthe	esis, practical
Course content	 Historical overview, basic concepts and application of artificial intelligence in engineering. The concept of the artificial intelligence system (with a view to the applicat traffic engineering). Knowledge representation methods: declarative, procedural and semantic. The problem of the knowladge transformation. State-space. Search methods: breadth first search, depth first search and combined search. Formalization of reasoning and inference systems. Predicate calculus. Colloquium 1 Resolution. Unification and unification algorithms. Resolution method. Fuzzy logic and fuzzy logic controllers. Mamdani and Sugeno fuzzy inference systems. Introduction to Artificial neural networks. 						intelligence in traffic to the application in semantic. bined search.		
				Textboo	k (s)				- "
Petar Hot	r /s omski	Artifi	Name cial Intellig	of publicatio	n, p ı s, Ur	iversity of Nov	Year 2006		Pages (from-to)
Ivana Berkovic		Sad, Elem Novi Zren	Sad, Technical Faculty "Mihajlo Pupin" Zrenjanin Elements of Artificial Intelligence, University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin				2006		
Stuart J. Russell Norvig	and Pete	r Artifi Pren	Artificial Intelligence, A Modern Approach, 2010 Prentice Hall						
				Additional r	ead	ngs			
Autho	r/s		Nam	e of publicat	ion,	editor	Year		Pages (from-to)

	Assesment methods	Points	Percentage						
Evaluation criteria	Pre-exam								
	attendance at lectures	10	10%						
	practical (laboratory) exercises	10	10%						
	Colloquium 1	15	15%						
	Colloquium 2	15	15%						
	Final exam								
	oral exam	50	50%						
	TOTAL	100	100%						
Web sources									
Applicable from 06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Traffic Engin Doboj									

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						200 States and a states	
82°			Pro	file: Informatic	s in tr	affic			40501
			I cycle		١١	/ year of stu	ıdy		
Course title		-			D	ATABASE			
Department		Departme of East Sa	ent of com rajevo	puters, informa	tion te	echnologies	and biotec	hnol	logy, ETF, University
Co	ode		Course status Semes			ter		ECTS credits	
САФ11СИ07	114777,	0321	mandatory VII					7.00	
Professor/s	Ph.	D. Gordana	Jotanovic	, Assistant Profe	essor				
Associate/s									
v	Veekly h	ours		Individual st	tuden	nt hours (pe	r semester))	Student workload coefficient S _o
L	TE		LE	L		TE	LE		So
2	1		1	45		22.5	22.5		1.5
Total teache W = 2*15 + 1*	er worklo 15 + 1*1	oad (hours, 15 = 30 + 15	per semes 5 + 15 = 60	ter) hours T =	Tot 2*15	tal student v *1.5 + 1*15	workload (h *1.5 + 1*15 90	ours 5*1.5	s, per semester) 5 = 45 + 22.5 + 22.5 =
		Total worl	<load: +<="" td="" w=""><td>$T = U_{opt} = 60 + 9$</td><td>90 = 1</td><td>50 hours pe</td><td>er semester</td><td></td><td></td></load:>	$T = U_{opt} = 60 + 9$	90 = 1	50 hours pe	er semester		
Course aims and learning outcom	Students wi Students wi Students wi Professiona	ts will be capable of creating and implementing databases ts will be trained to manage databases ts will create a user interface with the help of database management tools. ional knowledge students will apply through the application and various smaller							
	арр	olications.							
Prerequisites	No								
Teaching method	ds Ora	al presentat	ion. Labor	atory exercises.					
Image: Conserve of Distribution: Eaboratory exercises. 1. Concept of Databases. 2. Database lifecycle. 3. Database architecture. 4. Elements of physical structure. 5. Primary key based access. 6. Data modeling. 7. Modeling of Entities and Relationships. 8. Colloquium 1 9. Relational Model. 10. Normalization of the Relational Scheme. 11. Languages for Relational Databases. 12. SQL language. 13. Implementation of relational operations. 14. Data integrity and security.									
Author	10		Namo	of publication	(5) publi	chor	Voa	r	Pages (from to)
Aution	/3	Infor	mation su	stems and Data	hase	University	of		
G Jotanovic G., Ja	ausevac	G. East Engi	<i>Sarajevo,</i> neering	Faculty of Tra	inspor	rt and Traf	fic 2012	2	
Lazarevic B., Ma Anicic N., Babaro	arjanovic gic S.	Z., Data Belgi	bases, Fac rade	culty of Organ	izatio	nal Scienco	es, 2003	3	
Mogin P., Lukovid	Prino Scier	ciples of a ces, Novi S	databases, Fac Sad	culty	of Technie	cal 1995	5		
				Additional rea	adings	5			
Author	/s		Nam	e of publication	n, edit	tor	Yea	r	Pages (from-to)
Elmasri R., Navat	he S. B.	<i>"</i> Fun Addi	damentals son-Wesle	of Database Sy y	/stem	s"5th Editic	on, 2006	6	

	Assesment methods	Points	Percentage						
	Pre-exam								
	lectures / exercises attendance	10	10%						
	project task	10	10%						
Free land to a sold out o	Colloquium 1	15	15%						
Evaluation criteria	Colloquium 2	15	15%						
	lab. exercises	10	10%						
	Final exam								
	oral exam	40	40%						
	TOTAL	100	100%						
Web sources									
Applicable from	06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Traffic Engineering in Doboi								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic I cycle IV year of study						2003 5545 NAUM 000000000000000000000000000000000000		
Course title				DES	IGN OF	INFORMATIO	N SYSTEMS			
Department		Departmo	ent of Com	puter and	Informa	ation Science a	and Bioinforr	matics ETF East Sarajevo		
c	Code		Course status		;	Seme	ster	ECTS credits		
САФ11СИО	7108675,	0211	0	bligatory		VI	I	5.00		
Professor/s										
Associate/s										
Weekly hours				Individ	ual stu	dent hours (po	er semester)	Student workload coefficient S _o		
L	TE		LE	L		TE	LE	So		
2	1		1	60		40	20	1.33		
Total teach W = 3*15 + 2	ner worklo *15 + 1*1	bad (hours, 15 = 45 + 30	per semes) + 15 = 90	ter) hours	T = 3	Total student *15*1,33 + 2*	workload (h 15*1,33 + 1* 120 hou	ours, per semester) *15*1,33 = 60 + 40 + 20 = rs		
		Total work	load: W +	$\Gamma = U_{opt} = 9$	0 +120	= 210 hours p	per semester			
Course aims and learning outcon	1.5 sys 2.5 3.5 con 4. [the 1.5	 Students will have knowledge related to the development and structure of the information system in traffic Students will be introduced to the methodology of information systems development Students will be able to define project requirements related to business in a transport company During the teaching activities, students will be introduced to certain examples related to the design of information systems Students will get acquainted with the methodology of development of project tasks related 								
Prerequisites	The	re are no f	formal cond	hitions	Jany					
Teaching metho	Lec	tures, class	room exer	cises and c	onsulta	itions. Learnin	g and indepe	endent preparation of		
Course content	Index Intervention of the consultation hods Lectures, classroom exercises and consultations. Learning and independent prepares related to the design of information systems in traffic 1. Basics of information system. Data and information. Information and decision in traffic. 2. Traffic information systems. Evaluation of information system in transport com 3. Character and development of computer technology. Introduction of computer information system of the transport company. 4. Domains of information technology application. Transactional data processing. management information systems. 5. Traffic decision support system. Expert systems 6. Project management. Characteristics of the project of information system deve traffic. 7. Participants in the information system development project. Reasons for startir information system development project in transport companies. 8. II colloquium 9. Resistance to information system automation life cycle methodology. Data mode methodology of prototype development. Object-oriented methodology. Struct methodology. 11. Features and problem of structural methodology in traffic. 12. Information system research. Preparation of a feasibility study in transport companies. Systemalysis. External design. Internal design. Module programming 14. Methods and techniques for designing information systems in transport companies.							c nd decision making in ransport companies. of computers in the a processing. Traffic system development in ons for starting an ogy. Data model dology. Structural transport companies. ompanies. System ansport companies.		

Author/s		Name of publication, publisher	Yea	r	Pages (from-to)				
Dr Rade Stankić		Projektovanje informacionih sistema, Ekonomski fakultet Beograd	2013						
		Additional readings							
Author/s		Name of publication, editor	Yea	r	Page	es (from-to)			
Dr Željko Stjepanović	5	Skripta, Projektovanje informacionih sistema	2014						
		Assesment methods		Poi	nts	Percentage			
	Pre-exa	n obligations							
		attendance at lectures / exe	ercises	5		5%			
		positively graded seminar	15		15%				
Evoluation critoria		Colloqu	15		15%				
Evaluation criteria		Colloqu	15		15%				
		lab. ex	10		10%				
	Final exam								
			40		40%				
	TOTAL		100)	100 %				
Web sources									
Applicable from	06/16/2 Doboj	021 - Teaching-Scientific Council, Faculty of Transpor	t and Tr	raffic	Engine	ering in			

18.0	Service and the service of the servi	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							South A	005
SAC	- + y		_	Study prog	ram: T	affic				
	//		Pro	file: Inform	atics ii	n traffic				40E01
Course title			I cycle				У			
Course title		Denartm	ent of Infor	mation - Co	mmur	E-BUSINESS	in Traffic	Fac	ulty of T	ransport and
Department		Traffic Er	gineering i	n Doboj		incation Systems	in traine,	, 1 ac		
C	ode		Course status Semester			er		credits		
САФ11СИ07	7115475,	0220	со	mpulsory		VII			5	5.00
Professor/s	Žel	jko Stjepan	ović, PhD,	associate p	rofesso	or				
Associate/s										
١	Weekly h	ours		Individu	ual stud	dent hours (per	semester)	Stude coe	nt workload fficient So
L	TE		LE	L		TE	LE			So
2	2		0	45		45	0			1.5
Total teach W = 2*15	er worklo + 2*15 +	oad (hours, 0*15 = 30	per semes $+ 30 + 0 = 0$	ter) 60	T = 2	Total student w *15*1.5 + 3*15	orkload (h *1.5 + 0*1	iours 15*1	s, per se .5 = 45 -	mester) - 45 + 0 = 90
		Total wor	kload: W +	$T = U_{opt} = 6$	0 + 90	= 150 hours per	semester			
	1.5	students w	ill be acqua	inted with	basic e	-business mode	S			
Course aims and	1 2.5	Students w	ill be able t	o use vario	us elec	tronic payment	models			
learning outcom	nes 3. S	students w	ill be able t	o manage e	electror	nic banking appl	ications			
	4. 5	Students w	ill acquire r	necessary kr	nowled	ge related to ris	ks and da	ta sa	ifety in e	e-business
Prerequisites	No	formal pre	requisites							
Teaching metho	ds Lec	Lectures, classroom exercises and tutorials. Studying and individual seminar papers related to								
	11	nternet an	d globalizat	tion of busi	ness pr	ocesses				
	2. E	2. Basic components of e-business								
	3. E	3. E-business infrastructure								
	4. E	4. Electronic banking								
	5. N	5. Modern forms of electronic banking								
	6. E	6. Electronic payment systems								
	7.4	7. Advantages and disadvantages of electronic banking								
Course content	8. 0	8. Colloquium I								
	9. E	9. Business intelligence and expert systems								
	10.	10. Managing relationships with customers in modern business								
	11.	11. Electronic commerce								
	12.	12. Advantages and disadvantages of e-commerce								
	13.	The role a	e-commerce	e .nco of Intor	not m	arkating in mod	orn husing			
	14.		nu iniporta n ll		net ma			:55		
	13.	conoquiu	<u></u>	Textb	ook (s)					
Author	r/s		Name	of publicat	ion, pu	ıblisher	Yea	r	Page	es (from-to)
Rade Stankić	-	Elec	tronic Com	merce, Facu	ulty of I	Foreign Trade in	200	-	1 10	· · ·
Branko Krsmano	vić	Bijel	jina				200	/	1 - 19:	5
				Additiona	l readi	ngs				
Author	r/s		Name of publication, editor				Yea	r	Page	es (from-to)
Željko Stjepanov	rić	Teac	hing mater	rials, Traffic	Engine	ering Doboj	201	8		1 - 159
			As	ssessment r	netho	ds		Po	ints	Percentage
	Pre	-exam obli	gations							
Evaluation criter	ria			att	endan	ce to lectures / e	exercises		5	5%
				ser	ninar p	aper positively	assessed		15	15%
						collo	quium 1		20	20%
		colloquium 2 20							20	20%
	final exam	40	40%							
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	TOTAL	100	100%							
Web sources										
Applicable from	06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Tr Doboj	raffic Engine	ering in							

STOT Y UCTOWNO			UNIVERSITY OF EAST SARAJEVO						2005	
	A LORY	Study program: Traffic							Sage of the	
**************************************			Pro	file: Infor	matics i	n traffic				
10 LON 00 LON	/		I cycle			IV year of st	udy		doroj	
Course title					SOFTV	VARE ENGINE	ERING			
Department		Departme	partment of Computer and Information Science and Bioinformatics ETF East Sarajevo							
	Code		Cou	urse status	S	Seme	ster		ECTS credits	
САФ11СИС)7115776,	,0311	Ma	anadatory		VI		6,00		
Professor/s	Pro	rof. dr Zeljko Stojanov, associate professor								
Associate/s										
	Weekly h	nours		Individ	lual stu	dent hours (pe	er semester)		coefficient So	
L	TE		LE	L		TE	LE		S _o	
3	1	l (l	1	45	<u> </u>	15 Tatal atu dant	15		1,2	
I otal teach		0ad (nours,	per semes	ter)		10tal student		ours *1c	, per semester)	
VV	- 2 : 12 +		oad: W/+T-	:1 lost= 75	 + 75 -	150 hours		г т <u>э</u> г	20 - 12 20-20	
	1 0	students sh	ould acouit	re knowler	dge aho	ut the applicat	tion of meth	ods :	and tools for	
	de	signing soft	ware syste	ms.	19C 000	at the applicat		0050		
	. 2.9	students sh	ould acqui	re knowled	dge of so	oftware lifecyd	cle processes	anc	l models	
Course aims an	d 3. 9	students sh	, ould acquii	re knowled	dge that	, enables them	n to design so	oftw	are systems	
learning outcor	ndependently or within a team									
	4. 9	4. students should acquire knowledge about the application of methods and tools of software								
	en	gineering in	technical	systems in	traffic					
Prerequisites	No									
Teaching metho	ods Leo	tures. Labo	ratory exe	rcises.						
	1.9	 Software as a product. Features and quality of software products. Application of software in traffic 								
		2. Principles of software engineering								
	2.1	2. Principles of software engineering.								
	3. 3	4. Agile methods.								
	5 9	5. Software requirements. Software requirements process.								
	6.	6. Software requirements modelling. Prototyping.								
	7.1	7. I Colloquium								
Course content	8. 9	8. Software design. Conceptual and technical design.								
	9.7	9. Architectural styles. Modularity.								
	10.	10. User interface design.								
	11.	11. Characteristics of good design. Component independence.								
	12.	12. Object Oriented Software Design. UML.								
	13.	 Programming standards and procedures. Preparation of documentation. Design of software systems for application in traffic 								
	14.	. II Collogui	u m		applied					
				Text	book (s)					
Autho	or/s		Name	of publica	ation, pu	ublisher	Year	r	Pages (from-to)	
Shari Lawronco	Dfloogor	Soft	vare engin	eering: Th	eory an	d practice.				
Joanne M. Atley	Pileegel	Tran	slation of t	he third eo	dition. C	ET. Belgrade,	2006	5		
Journe W. Atlet	-	Serb	a.							
×		Softv	vare life cy	cle. Unive	rsity of	Novi Sad,				
Zeljko Stojanov		Tech	nical Facul	ty "Mihajlo	o Pupin'	Zrenjanin.	2021	L		
Diorre Dever	and D!-I	Serb	a.	fture T	alaari	a Dodu of				
F Eairloy (Edito	and Richa	ara Guid	e to the So	rtware En	gineerin	2 ROAA 01	2014			
c. rainey (Eulto	15)	KNOV	vieuge, vei	Addition		ngs				
Autho	or/s		Nam	Addition	cation	ngs editor	Vear		Pages (from to)	
Autho	л/ з		INdff	ie oi publi	cation,		Tear		rages (110111-10)	

lan Sommerville		SoftwareEngineering, 9th edition. Addison- Wesley, Boston, MA, USA.	2011			
		Assesment methods		Po	ints	Percentage
	Pre-exa	n obligations				
		Colloc	30		30%	
Evaluation criteria		Colloc	30		30%	
	Final exa	am				
	Written exam					40%
	TOTAL					100%
Web sources						
Applicable from16.06.2021 175th session of the Teaching-Scientific Council of the Traffic Engineering				Facu	Ilty of Tr	ansport and

RE THETOMA	27		UNIVERSITY OF EAST SARAJEVO						2005 555 188 947
-18-			Faculty of Transport and Transc Engineering						A REAL PROPERTY AND A REAL
		Study program: Trajjic							
4545 4545 30	III -			jne: injormo	aucs n	Nyyoar of stu	dv		40E0J
Course title		-	Тсусіе		NTER				
course title		Denartm	ent of com	nuters infor	matio	n technologies	and hiotech	nol	ogy FTE University
Department		of East S	araievo	puters, intoi	matio	in technologies		mon	ogy, ETT, Oniversity
	Cada		Co.			Como			
	Code		Col	irse status		Semes	ter		ECTS credits
САФ11СИ	07109985	,0311	m	andatory		VIII			5,00
Professor/s	Ph	.D. Gordan	a Jotanovic	, Assistant P	rotess	or			
Associate/s									
	Weekly I	hours		Individua	al stud	dent hours (pe	r semester)		coefficient So
L	TE		LE	L		TE	LE		So
3	1		1	30		15	15		1,5
Total teac	her workl	oad (hours	, per semes	ter)		Total student v	vorkload (ho	ours,	, per semester)
W = 2	2*15 + 1*	15 + 1*15	= 60 hours			$T = 2*15*S_{o} +$	1*15*S _o + 1	*15	*S _o = 90 hours
		Total wor	kload: W +	$T = U_{opt} = 60$) + 90	= 150 hours pe	r semester		
	1.	Students n	eed to learr	n about ways	s to co	mmunicate usi	ng Internet	tech	nnologies.
Course aims an	2.	Students n	eed to learr	n about Inter	rnet pi	rotocols and se	rvices.		
learning outcou	mes 3.	Students sł	nould gain k	nowledge a	bout I	nternet securit	y and data s	secu	rity.
icuming outcom	4.	Students sl	s should learn about the use of the Internet and mobile devices in the traffic						
		engineering	g domain.						
Prerequisites	Ba	sic knowled	lge in the fi	eld of Comp	outer n	etworks.			
Teaching meth	ods Or	al presenta	tion. Labor	atory exercis	ses: Us	se of HTML and	l CSS langua	ige.	
	1.	1. Introduction of Internet Technology.							
	2.	2. I ypes of communication using the Internet.							
	3.	3. Application layer protocols.							
	4.	4. TCP / IP protocols (IP, ARP, ICMP, UDP, TCP).							
	5.	5. IPv4 and IPv6 (advantages and disadvantages).							
	6.	Internet Services (INTRANET).							
	/.	Application of internet and mobile devices in the domain of traffic engineering. WAP standard, GPRS and SMS							
Course content	$t = \begin{bmatrix} SLG \\ Q \end{bmatrix}$	stanuaru. GPRS anu Sivis. 8 Colloquium 1							
	۵. ۵	o. Conoquium I 9 WEB application development technologies							
	10	Marker languages (HTML XHTML YML)							
	10	. Scrin	t languages	сэ (тттис, Л 5.	····•·-,				
	12	. Inter	net security	/ and data se	ecurity	/.			
	13	3. Access control. User authentication.							
	14	. Cryp	tography. D	igital signati	ure.				
	15	. Colloquiu	m 2						
				Textbo	ook (s)				
Autho	or/s		Name	of publicati	ion, pι	ıblisher	Year		Pages (from-to)
Andrew S. Tane	enbaum	Con Sert	iputer netw via.	ork, Mikro k	knjiga,	Beograd,	2005	5	
		Inte	rnet infrast	ructure: Net	worki	ng, web			
Richard Fox and	d Wei Had	o serv	ices, and cl	oud comput	ing. Cl	RC Press. Boca	2018	3	
		Rate	on, FL, USA.		0				
Comer, E. D.		Inte	rnetworkin	g with TCP/I	P, Pre	ntice Hall	2013	;	
				Additional	readi	ngs			
Autho	or/s		Nam	e of publica	tion,	editor	Year		Pages (from-to)
Terry Felke-Mo	rris	Wel HTN	o developm 1L5, 8th edi	ent and de	sign f	oundations wi	th 2016	;	
L							I		

Josh Hill i James A. Brannan		HTML5 I CSS3: brilliant, CET 202				
		Assesment methods		Poi	ints	Percentage
	Pre-exa	n				
		lectures / exercises atter	idance	5		5%
		proje	15		15%	
Evoluction exitoria		Colloqu	15		15%	
Evaluation criteria		Colloqu	15		15%	
		lab. exe	ercises	10		10%
	Final exa	am				
		ora	l exam	40		40%
	TOTAL			100)	100%
Web sources						
Applicable from 06/16/2021 - Teaching-Scientific Council, Faculty of Transport and Traffic Engineeri Doboj						ering in

		UNIV Faculty of ⁻ Pro I cycle	ERSITY OF Transport a Study prog file: Inforn	EAST S and Trat ram: Tr natics i	ARAJEVO ffic Engineering raffic n traffic I year of stu	g dv		ADEDJ		
Course title			REAL-TIME COMPUTER SYSTEMS							
Department		Departm	ent of Auto	mation an	d Robo	tics - ETF East S	Sarajevo			
Code			Coι	urse status		Semes	ter		ECTS	credits
САФ11СИ)7135686,	0311				VIII			6	5.00
Professor/s	Phi	O Miroslav	Kostadinov	ić, associa	te profe	essor				
Associate/s									a , 1	
	Weekly h	ours		Individ	ual stu	dent hours (pe	r semest	er)	Stude coe	nt workload efficient So
L	TE		LE	L		TE	LE			So
3	1		1	2		1	1			1,5
Total teac	her worklo 3*15 + 1* 30+ 1'	oad (hours) 15 + 1*15 5+ 15= 60 l	, per semes = W h	ter)		Total student v 3*15*1,5 [.] 45	workload + 1*15*1 +22 5+ 2	(hour: .5 + 1* 2 5 = 9	s, per se *15*1,5 = A0 h	mester) = T
	501 1.	51 15- 001	Tota	al workload	· 60 + 9		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,	,	
	1.1	ntroducing	students t	o the conc	epts an	d knowledge ir	h the field	of dia	zital mar	agement
	sys	tems.	,						.	
Course aims an	d 2.5	students w	ill get acqua	ainted and	master	the knowledg	e in the fi	eld of	constru	ction,
learning outcom	nes stru	ucture, app	olication of	digital con	trol syst	tems, with the	characte	istics	of the	
	mic	crocontroll	er platform							
	3.1	Aicroproce	essor contro	ol systems	and Ma	tlaba.				
Prerequisites	Do	es not have	e 							
Teaching meth		tures, aud	tory exerci	ses, semin	ar pape	r				
Course content	2. F 3. F 4. E of e 5. F out 6. F 7. F 8. (9. N 10. 11. for 12. 13. 14.	 Problems of real-time systems. History. Real-time system classifications. Applications. Real-time system specification and design. Final state machine. Embedded computer systems. Comparisons of different real-time systems on the examp of embedded mobile robotic platforms and the automotive industry. Real time system hardware. Digital inputs / outputs. Analog inputs / outputs. Pulse input outputs. Real time clock. Real-time operating system (RTOS). Process scheduler. Call systems. Interrupt-driven systems. Multitasking systems. (I colloquium) Mutual exclusion of processes. Communication between tasks. Real-task programming languages. Hardware and software integration. System management concept. System configuration. Introduction to SCADA systems, divisions and architecture of SCADA systems as a syster for monitoring and acquisition of data in real-time systems. Hardware and software components of SCADA system. Examples of application. Problems of communication within the real-time management system. Remote control systems. 						the example Pulse inputs / ns. ramming as a system on.		
				Textb	ook (s)					
Autho	or/s		Name	e of public	ation, p	ublisher	Y	ear	Page	es (from-to)
Stojio	M.	Со	ntinuous au	utomatic co book. B	ontrol s elgrade	ystems, Scienti	fic 1	990		
2. Ковачевић Б		Sign	als and Syste	ems <u>,</u> Акаде	мска ми	сао, Београд,	20)7.		
			*	Addition	al readi	ngs	·			
Autho	or/s		Nar	ne of publ	ication,	editor	١	ear	Page	es (from-to)
Evaluation crite	eria		A	ssesment	method	ls		Po	oints	Percentage

	attendance at lectures and exercises	10	10%			
	seminar papers	20	20%			
	10	10%				
	10	10%				
	Final exam					
	final exam (oral / written)	50	50%			
	IN TOTAL	100	100%			
Web sources						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering					

H	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic							
Course title			,	ORGANIZA	TION OF TRAFI		ES	
Department		Departme Doboj	ent of Tran	sport Engineeri	ng - Faculty of	Transport and	l Traffic Eng	ineering
Code			Course status Semester			ester	ECT	S credits
САФ11СИ071	04585,0)220	0	bligatory	١	/111		5.50
Professor/s	PhD	Perica Goj	jković, full	professor				
Associate/s								
We	ekly ho	ours		Individual s	tudent hours (per semester) Stud co	ent workload efficient S₀
L	TE		LE	L	TE	LE		So
2	2		0	45	45	0		1.5
Total teacher W = 2*15 + 2*1	workloa .5 + 0*1	ad (hours, .5 = 30 + 30	per semes 0 + 0 = 60	ter) T hours T	Total studer = 2*15*1,5 + 2	1t workload (h *15*1,5 + 0*1 hours	ours, per se 15*1,5 = 45	emester) + 45 + 0 = 90
	-	Total work	load: W +	$T = U_{opt} = 60 + 9$	0 = 150 hours	per semester		
Course aims and learning outcomes	 By mastering this course the student will be able to: 1. learn the basic concepts of organization, as well as types and organizational models of enterprises; 2. will be able to analyze the organization of large business systems, business and development policy and development factors; 3. independently organize and lead a meeting according to defined rules; 4. acquired knowledge in practice to apply and establish their own company as well as to 					nodels of 1d well as to give		
Prerequisites	Ther	re are no s	pecial cond	ditions				
Teaching methods	Lect	ures, audit	ory exerci	ses, consultatio	ns			
Course content	1. Th 2. Ty 3. O 4. O 5. O 6. Bu 7. Ch 8. Ba 9. O 10. C 11. E 12. C 13. C 14. C	 Lectures, additory exercises, consultations The concept and development of the organization Types of organizational structure Organizational models of the company Organizing large business systems Organizational models of transport companies Business and development policy Characteristic business factors (I colloquium) Basic methods and techniques for optimization Organizational culture Organization of business functions Business information systems Organization control. Organizing a meeting Organization and management of investments Organization design. Organizational transformation of the company 						
				Textbook	(s)			
Author/s	;		Name	of publication,	publisher	Yea	r Pag	es (from-to)
Vešović, B. V., Boj Knežević, Lj. N.	ović, J. I	N., Orga fakul	nizacija sa tet, Beogra	obraćajnih pred ad,	luzeća, Saobra	ćajni 2007.		
				Additional re	adings			
Author/s	;		Nam	e of publicatio	n, editor	Yea	r Pag	ges (from-to)
Evaluation criteria			A	ssesment meth	ods		Points	Percentage
	Pre-	exam oblig	gations					

	attendance at lectures / exercises	10	10%				
	colloquium 1	40	40%				
	colloquium 2	20	20%				
	Final exam						
	oral	30	30%				
	IN TOTAL	100	100 %				
Web sources							
Applicable from	Applicable from 16.06.2021 175th session of the Teaching-Scientific Council of the Faculty of Transpor Traffic Engineering						

	Assesment methods	Points	Percentage
	Pre-exam obligations		
	attendance at lectures / exercises	5	5%
	positively rated seminar paper	15	15%
Evaluation oritoria	Colloquium 1	15	15%
Evaluation criteria	Colloquium 2	15	15%
	lab. exercises	10	10%
	Final exam		
	oral	40	40%
	TOTAL	100	100%
Web sources			
Anniliashia fuana	16.06.2021 175th session of the Teaching-Scientific Council of the	Faculty of Tr	ransport and
Applicable from	Traffic Engineering		

SET Y METOWNO									2005	
-18-			Faculty of	ransport a	nd Tra	TIC Engineering	3		Sear The search of the search	
* * * * * *			Pro	ofile: Inform	natics i	n traffic				
275 4 See 30 1.4	/		I cycle			III year of stu	ıdy		AOEOJ	
Course title			KNWOLEDGE BASED SYSTEMS							
Department		Depart Traffic	partment of Information - Communication Systems in Traffic, Faculty of Transport and Iffic Engineering in Doboj							
Code			Сон	urse status		Semes	ter	ECTS credi		
САФ11СИ07236485,021				0		V		5,00		
Professor/s	Ph	nD Vladim	ir Brtka							
Associate/s										
	Weekly	hours		Individu	ual stu	dent hours (pe	r semester)		coefficient So	
L	TE		LE	L		TE	LE		So	
2	1		1	30		15	15		1,5	
Total teach	her work	load (hou	rs, per semes	ter)		Total student	workload (h	ours	, per semester)	
W = 2*15 + 1	L*15 + 1*	[•] 15 = 30 +	15 + 15 = 60	hours	T =2*:	15*S ₀ + 1*15*	S ₀ + 1*15* S	0= 30	0 + 15 + 15=60 S ₀ = 90	
		Total	workload: W/	T-U - 60	. 00 -	1E0 hours por	nours			
	1	Students	acquire theo	retical and	+ 90 -	al knowledge a	and skills for	. tho	application of	
	kn	owledge-	based system	is.	practic	ai kilowieuge e		the		
	2.	Students	Jwieuge-based systems. Students will be able to identify situations suitable for the application of knowledge-based							
	. sy	systems and to notice the difference in situations of application of expert systems.								
Course aims an	d 3.	Students	will be able t	o apply the	acquir	ed knowledge	in the field	of kr	nowledge	
learning outcor	fo fo	rmalizatic	n and to use	existing sof	ftware	solutions for tl	he application	on o	f knowledge-based	
	sy	stems.								
	4.	Students	will be able t	o apply the	ir profe	essional knowl	edge by forr	ming	g a knowledge base	
	wi	ith autom	ated method	s.						
Prerequisites	NO	one stures la						nsultations Learning and		
Teaching metho	ods ind	depender	it developme	nt of practi	cal tasl	s.	cises and co	nsur	tations. Learning and	
	1.	Motivatio	on, introducti	on and terr	ninolog	gy.				
	2.	2. Areas and examples of application of knowledge-based systems.								
	3.	Forms of	orms of knowledge representation.							
	4.	Components of knowledge-based systems.								
	5.	Sources and methods of data collection for the purpose of knowledge extraction.								
	7.	Preparati	on of data fo	r knowledg	e extra	ction.				
Course content	8.	Colloquiu	m.		0 0/10/0					
	9.	. Methods and algorithms for extracting knowledge from data.								
	10	10. Statistical methods of knowledge extraction.								
	11	. Rough s	et theory.							
	12	2. Patterns	and their ro	le.						
	3. Convolu	tional neural	networks a	and the	ir connection v	with knowle	dge	-based systems.		
14. Imp			entation of ki	nowledge-b	ased s	stems - iPytho	on, Jupyter I	Note	book.	
	1 13				nok (e)	seu systems.				
Author/s Name of nublication nublisher				Year	r	Pages (from-to)				
	- Devel	M	achine Lear	ning, Univ	/ersity	of Novi Sa	id,	`		
Vladimir	Brtka	Те	chnical Facul	ty "Mihajlo	Pupin'	', Zrenjanin.	2019	9		
		Sy	stems of Ar	tificial Inte	elligenc	e, University	of			
P. Hoto	omski	No	Novi Sad, Technical Faculty "Mihajlo Pupin", 2006				5			
		Zr	enjanin.		-					
				Additiona	al readi	ngs				

Author/s		Name of publication, editor	Yea	r	Page	es (from-to)
		Assesment methods		Poi	nts	Percentage
	Pre-exa	n obligations				
		attendance at le	ectures	10		10%
		attendance at ex	10		10%	
Evaluation criteria		Colle	20		20%	
		lab. ex	10		10%	
	Final exa	am				
			oral	50		50%
	TOTAL			100)	100%
Web sources						
Applicable from	16.06.20	21 175th session of the Teaching-Scientific Counc	il of the	Facu	lty of Tr	ansport and
Applicable Irolli	Traffic E	ngineering				

			UNIV Faculty of		Statutaling Statuta					
			Pro		LOZOL					
Course title										
Department		Departme	artment of Information and Communication Systems in Traffic, Faculty of Transport							
Co	de		Cou	urse statu	IS	Semes	ter		ECTS credits	
САФ11СИ072	236385,	0211 D. Ansal Ka		Elective		VIII			5,00	
Associate/s	Pn.	D. Amer Ko	SOVAC, ASSO		Jiesson					
W	eekly h	ours		Individual student hours (per sei			er semester)		Student workload	
L	TE		LE	L		TE	LE		S _o	
2	1		1	30)	15	15		1.5	
Total teache W = 2*15 + 1*2	r worklo 15 + 1*1	oad (hours, 15 = 30 + 15	per semes 5 + 15 = 60	ter) hours	T =2	Total student v *15*S ₀ + 1*15'	workload (h * S ₀ + 1*15* 60S ₀ =90 h	ours S ₀ = ours	, per semester) 30S ₀ + 15S ₀ + 15S ₀ =	
		Total worl	<load: +<="" td="" w=""><td>T = U_{opt} =</td><td>: 60 + 90</td><td>= 150 hours pe</td><td>er semester</td><td></td><td></td></load:>	T = U _{opt} =	: 60 + 90	= 150 hours pe	er semester			
	1. N	Master the	basic conce	epts of cu	istomer i	elationship ma	anagement	(CRN	A).	
Course aims and	2. 1	Master the	basic appro	oaches in	custome	er satisfaction r	esearch.			
learning outcome	s 3. N	Master tech	iniques for	predictin	ng user b	ehavior.				
Dronoguicitos	4.1	vlaster the	basic tools	for custo	mer rela	tionship mana	gement.			
Teaching method		Incontat	ion illustr	ativo don	onstrati	vo mothod an	alveic and c	unth	osis	
Teaching method	3 01a	troduction	to Custor	or Rolati	onshin M	lanagement (C	RMI	yntn	2515.	
Course content	he concept volutionar Approaches Customer re Customer R Colloquium Customer R Cechnologic Electronic CRM syste CRM syste	and defin y developm to custom elationship lient behav elationship al basis of business a m life cycle	ition of C nent of m ler satisfa manager viour. Cus o Policy. A o Manage customer nd custor e. eering.	RM. Nee harketing action res ment as a stomer se analytical ment To r relation mer relat	d for CRM. management. earch. business proc gmentation. C CRM. ols. ship managem ionship manag	ess. Sustomer pro nent. ement via tl	ofita he Ir	bility. hternet.		
	13.	Implement	tation of Cl	RM soluti	ons in te	lecommunicat	ions compai	nies.	ountrios	
	15.		n 2	ivi ili piac	Lice, the	Situation in th	e sui ounui	ing ci	ountries.	
				Text	tbook (s)					
Author/	s		Name	of public	ation, p	ublisher	Year	r	Pages (from-to)	
Dyche, J., Diche, J		The custo	CRM ha	ndbook: tionship	A bus manage	iness guide ment. Addisc	to on- 2001	1		
Macaulay, T., R.	IoT (and Kauf	IoT Control: Understanding and Managing Risks and the Internet of Things (1st Edition), Moragan 2016 Kaufmann, Cambridge, USA.								
Greenberg, P.		CRM custo <u>Mc</u> G	CRM at the speed of light: Capturing and keeping customers in Internet real time. Osborne 2002 McGraw-Hill.							
Peelen, E.		Custo Educ	omer Rela ation Limit	ationship ed, Essex	Manag	ement, Pears	on 2005	5		

		Additional readings				
Author/s		Name of publication, editor	r	Page	es (from-to)	
Buttle, F.		Customer Relationship Management. 2nd ed., Butterworth-Heinmann, Amsterdam, London	2009	Ð		
		Assesment methods		Poi	nts	Percentage
	Pre-exa	n				
		lecture atter	5		5%	
		participation in exe	5		5%	
Evaluation criteria		Collo	30		30%	
		lab. exe	ercises	10		10%
	Final exa	am				
		ora	l exam	50		50%
	Total			100)	100%
Web sources						
Applicable from	06/16/2 Doboj	021 - Teaching-Scientific Council, Faculty of Transpor	t and Tr	affic	Engine	ering in

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Informatics in traffic I cycle IV year of study						AJIH 947-11-11-11-11-11-11-11-11-11-11-11-11-11		
Course title					ENTE	RPRISE	RESOURCE M	ANAGEMEN	т		
Department		Dep	partme	ent of Marl	keting and	Manag	ement, Facult	y of Econom	omics in Brcko		
	Code			Сон	urse status	;	Seme	ster		ECTS	credits
САФ11СИС)7215985	5,0211		e	electoral		VII	1		Ľ	5,00
Professor/s	As	sociat	e Prof	essor Živko	o Erceg						
Associate/s											
	Weekly	hours			Individ	ual stu	dent hours (po	er semester)	Stude coe	ent workload efficient S _o
L	TE			LE	L		TE	LE			So
2	1			1	45		22,5	22,5			1,5
Total teach	her work	load (I	hours.	per semes	ter)		Total student	workload (h	ours,	per se	mester)
W	W = 2*15 + 1*15 + 1*15 = 60					T = 2	*15*1,5 + 1*1	5*1,5 + 1*1	5*1,5	= 45 +	22,5 + 22,5 =
		Tata	Incell	load: W · ·		60 1 00) - 150 hours -	90	r		
	1			$\frac{10au}{r}$ of theo	retical and	1 pract	ical knowledg	e and skills	in th	na fialc	l of company
	-	. Acq	nagem	ent			ical kilowieug			ie neit	
	2	. Aco	uiring	knowledg	e in the fie	eld of se	election and as	ssessment o	f tho	se reso	urces that are
Course aims an	d	just	ified fr	rom the as	pect of so	cial and	economic poi	nt of view.			
learning outcor	. Acq	Juiring	knowledg	e about tł	ne impo	ortance of inve	estments in	trans	sport, j	ustification of	
	0				icators of	justifica	ation of investi	ments.			
	4	I. Acq	luiring	knowledg	ge about	softwa	re solutions	in the field	d of	enterp	rise resource
		ma	nagem	ent.							
Prerequisites	N	o prer	equisit	es							
Teaching metho	ods Le	ctures	s, audit	ory exerci	ses, labora	tory ex	ercises, consu	ltations			
	1.	The	conce	ept of ente	rprise resc	ources					
	2.	Ent	Enterprise resource characteristics Types of enterprise resources								
	3.	Ohi	/pes of enterprise resources hiectives of the company as an integrator of heterogeneous resources								
		Ma	nagem	ent of inta	inpany as a ingible res	ources	of the compar	N N	.30ui	003	
	6.	Ma	nagem	ent of fina	incial reso	urces of	f the company	• 1			
	7.	Ma	nagem	ent of ma	terial reso	urces of	f the company				
Course content	: 8.	l co	lloquiu	ım							
	9.	Ma	nagem	ent	of		total	enterp	orise		resources
		Res	ource	Managem	ent Techni	ques					
	10). Sof	tware	solutions f	or enterpr	ise resc	ource manager	nent			
	11	L. EKP	-piann	Ing of bus	mess resou	urces in	the company				
	12	2. 31dg 2. The	ges of	common r	nentation nodules in	an FRD	system				
	14. Il colloquium										
			<u></u>		Text	ook (s)					
Autho	or/s			Name	of publica	tion, p	ublisher	Yea	r	Pag	es (from-to)
Vesovic, Б. V., I	Bojovic, J	. N.,	Or	ganizatior	of traffic	compar	nies, Faculty of	- 200-	,		
Knezevic	:, Lj. N.			Tra	insportatio	on, Belg	rade	2007	· ·		
					Addition	al read	ings				
Autho	or/s			Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)
				A	ssesment	metho	ds		Poi	nts	Percentage
Evaluation crite	e ria Pr	e-exai	m oblig	gations							
						Presen	ce of lectures	/ exercises	10		10%

	Colloquium 1	20	20%
	Colloquium 2	20	20%
	laboratory exercises	10	10%
	Final exam		
	Final exam (oral)	40	40%
	TOTAL	100	100 %
Web sources			
Applicable from	16.06.2021. – 175. session of the Teaching-Scientific Council of the F Traffic Engineering	aculty of Tra	ansport and

Motor Vehicles

UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic								Statuli Contra				
Star.	4.5eg 10 1.05		Profile: Motor Vehicles				40503					
Ordinal		Code	e Course title Status		Course status Prerequisites			Fund classe	of es	ECTS		
				0	4		L	TE	LE			
			-									
28.	CAΦ11CN	/07116057,0330	Fundamentals of thermodynamics	0		V	3	3	0	7.00		
29.	CAΦ11CN	/107116157,0330	Fundamentals of fluid mechanics	0		V	3	3	0	7.00		
30.	CAΦ11CN	/107116254,0210	Fuel and lubricant technology	0		V	2	1	0	4.00		
31.	CAΦ11CN	/107136555,0211	Automatic control in vehicles	0		V	2	1	1	5.00		
32.	CAΦ11CN	/107106857,0330	Motor vehicles	0		V	3	3	0	7.00		
33.	CAΦ11CN	/107116466,0330	Fundamentals of vehicle dynamics	0		VI	3	3	0	6.00		
34.	CAΦ11CN	/107103966,0330	SUS engines	0		VI	3	3	0	6.00		
35.	CAΦ11CN	/107116565,0220	Fuel supply systems	0		VI	2	2	0	5.00		
26	CAΦ11CN	/07216666,0311	1. Alternative fuels and unconventional vehicle drives		I2 VI		2	1	1	6.00		
50.	CAΦ11CN	/107216766,0311	2. Mechatronic systems for engines and vehicles	12		VI	5	Ŧ	T	0.00		
37	CAΦ11CN	/107216965,0220	1. Materials of road vehicles	12		VI	2	2	0	5.00		
57.	CAΦ11CN	107217965,0220 2. Accounting and finance for managers				2	-	Ū	5.00			
38.	CAΦ11CV	107132962,0000	Professional practice	0		VI	0	0	0	2.00		
					Т	OTAL:	26	22	2	60		
			IV year of study									
39.	CAΦ11CN	/107117077,0330	SUS engine design	0		VII	3	3	0	7.00		
40.	CAΦ11CN	/107117176,0320	SUS engine equipment	0		VII	3	2	0	6.00		
41.	CAΦ11CN	/107117277,0330	Vehicle design and calculation	0		VII	3	3	0	7.00		
42.	CAΦ11CN	/107103475,0220	Operation and maintenance of vehicles	0		VII	2	2	0	5.00		
43.	CAΦ11CN	/107117375,0220	Engine diagnostics and maintenance	0		VII	2	2	0	5.00		
44.	CAΦ11CN	/107117486,0320	Design and organization of vehicle maintenance systems	0		VIII	3	2	0	6.00		
45.	CAΦ11CN	/107117585,0220	Environmental protection and waste management	0		VIII	2	2	0	5.00		
46.	CAΦ11CN	/107104585,0220	Organization of transport companies	0		VIII	2	2	0	5.00		
47.	CAΦ11CN	/107217785,0220	1. Technical inspection and homologation of vehicles	I 4		VIII	2	2	0	5.00		
	CAΦ11CN	/107204785,0220	2. Traffic safety									
	CAΦ11CN	/107236685,0220	1. Compressors, pumps and fans									
48.	CAΦ11CN	/107217885,0220	2. Human resources, knowledge and project management	I ₅		VIII	2	2	0	5.00		
49.	. САФ11СИ07105284,0030 Graduate thesis O VI						0	3	0	4.00		
					Т	OTAL:	24	25	0	60		

• L - lectures

• TE - theoretical exercises

• LE - laboratory exercises

			UNIV Faculty of	ERSITY OF Transport a	EAST S	ARAJEVO ffic Engineering		SPENALIHE WARTER		
			5	Study prog	ram: Ti	affic				
A COLORED STATE				Profile: Mo	otor Vel	lyear of study		AOEOJ		
Course title			I Cycle	FUND	AMENT	ALS OF THERMOI	OYNAMICS	angely data to the hold by shares		
Department	De	partme	ent of Moto	or Vehicles	, Opera	tion, Maintenand	e and Diag	nostics of Vehicles		
Code	2		Coι	urse status	;	Semeste	r	ECTS credits		
САФ115М0711	6057,033	0								
Professor/s	Prof. dr	Milan	Milotić							
Associate/s										
Wee	ekly hours	;		Individ	ual stu	lent hours (per s	emester)	Student workload coefficient S _o		
L	TE		LE	L		TE	LE	So		
3	3	<u> </u>	0	3		3	0	1,33		
Total teacher v	vorkload (hours,	per semes	ter)		Total student wo	rkload (hou *15*1 22 v	ars, per semester)		
3*1	0 + 3**15 + 45+ 45± 0	0°15	= vv			3 + 3,33 ± 3,33 + 3 د0-	· 15° 1,33 + · 60 + 0 = 11	0°15°1,33 = 1 20 h		
	43+ 43+ 0	- 90 H	Total w	orkload: 90) + 120	= 210 h= U _{ont}	00 + 0 - 12	2011		
	By mast	tering t	his course	the studer	nt will b	e able to:				
Course aims and	Introdu	ction t	o the beha	vior of wo	rking su	bstances and the	basic featu	res of typical technical		
learning outcomes	process	cesses. Introduction to the basic laws of heat exchange and their application. Introduction								
	to the b	asic la	ws of comb	oustion						
Prerequisites	Does no	ot have	1							
Teaching methods	Lecture	s, audi	tory exerci	ses, semin	ar pape	r				
Course content1. Basic concepts and definit equilibrium processes, types 2. The first principle of therm 3. Ideal gases and ideally inc properties 4. Equilibrium changes in the engineering 5. Equilibrium changes in the engineering 6. Circular processes with ide processes 7. I colloquium 8. The second principle of th 9. Real substances - propertion open system 10. Circular processes with r 11. Basic concepts of heat tr 12. Heat exchange by convertion engineering 13. Heat exchange by radiati 14. Heat exchange by radiati 14. Heat exchange by radiati					state s stances amics fo ssible su of ideal of ideal es as a v ynamic: poratio stances - condu similarit asic mod angers,	ize, system, energ r closed and oper ubstances - prope gases in a closed gases in an open working substanc s. Irreversible pro n and liquefactio - energy steam p ction, convection cy theorem - basic dels - application calculation of ba	gy, equilibri n systems erties. Mixtu system - a system - a system - a e. Right-han cesses in cl n. Typical p processes a n, radiation. c models - a in engineer isic types of	ures of ideal gases - pplication in pplication in nded and left-handed losed and open system processes in closed and nd cooling processes Heat conduction application in f exchangers		
Author/s			Name	of publica	tion, p	ure Iblisher	Year	Pages (from-to)		
A. Galo	vic		Hume	Термоди	намика		2002	1-317		
				Addition	al readi	ngs				
Author/s			Nam	e of publi	cation,	editor	Year	Pages (from-to)		

A. Galovic		The science of heat	1997		1-135	
		Assesment methods		Poi	ints	Percentage
		attendance at lectures and e	10		10%	
		semina	20		20%	
Evaluation exitaria		I coll	10		10%	
Lvaluation criteria		II coll	10		10%	
	Final exa	am				
		final exam (oral /	50		50%	
	IN TOTA	L	100	C	100%	
Web sources						
Applicable from 16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineerin						

VIIC	(EBY #	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							Section in the section of the sectio		
				Profile: Mo	otor Vel	hicles			AOEOJ		
Course title			l cycle	FUND		I year of stud	ΊΥ ΜΕCHANIC	S			
Department		Departm	ent of Moto	or Vehicles	, Opera	tion, Maintena	nce and Dia	agnostics	of Vehicles		
Co	de		Cou	urse status	5	Semes	ter	EC	TS credits		
САФ115М07	116157,	0330									
Professor/s	Pro	f. dr Perica	a Gojković								
Associate/s								C†11	dent workload		
w	/eekly h	ours		Individ	lual stu	dent hours (pe	semester)) 510	oefficient So		
L	TE		LE	L TE		LE		So			
3	3		0	3		3	0		1,33		
Total teache	r worklo	bad (hours,	, per semes	ter)		Total student v	vorkload (h	ours, per	semester)		
3	15 + 3 · . 15 + 1	12 + 0 · 12 5+ 0- 90 h	= vv			3 15 1,33 +	3 · 15 · 1,33	120 h	.,55 = 1		
	43+ 4	<u>3+ 0- 30 II</u>	Total wor	kload W -	FT= 90	0 + 120 = 210 h	0+00+0-	12011			
	Byi	mastering	this course	the stude	nt will b	e able to:					
Course aims and	He	applies Be	rnoulli's eq	uations an	d integ	ral forms of the	basic laws	of fluid flo	ow to solve		
learning outcome	tecl	hnical prob	olems								
Prerequisites	Prerequisites Does not have										
Teaching method	ls Lec	tures, aud	itory exerci	ses, semin	ar pape	r					
Course content	Course content 1. Mathematical foundations. Recapitulation of basic concepts in mathematics 2. Physical basics. Basic properties of fluids 3. Forces in a fluid. Equation of motion of a fluid particle 4. Fluid statics in the gravitational field. Pascal's law. Manometers 5. Determination of pressure force on flat and curved surfaces 6. Hydrostatic buoyancy. Swimming conditions. Density measurement 7. I colloquium 8. Fluid kinematics Euler's and Lagrange's description of flow. Material derivation. Trajectoria and streams. Bernoulli's equation 9. Fluid dynamics. Integral forms of the law of conservation of mass, momentum, momentur and laws of mechanical energy 10. Basic laws for one-dimensional flow. Modified Bernoulli equation. Graphical representation of the contents of the Bernoulli equation 11. Dimensional analysis of body circulation. Body resistance coefficients 12. Dimensional analysis of flow in pipes 13. Hydraulic calculation of pipelines: Line losses. Local losses. Energy characteristics of hydraulic machines 14. Calculation of pressure drop, flow and pipeline diameter. Calculation of non-circular cross							on. Trajectories m, momentum al eristics of n-circular cross-			
				Text	book (s)						
Author/	s		Name	of publica	tion, p	ublisher	Yea	r Pa	iges (from-to)		
Virag Z	•	Fluid	a mechanic	s-selected	chapte 3 Zagreł	rs, examples an	^u 200	2	1-300		
				Addition	al read	ings					
Author	/s		Nam	e of publi	cation,	editor	Yea	r Pa	ages (from-to)		
Munson, B. R.		Fur	ndamentals	of Fluid M	lechani	cs, John Wiley &	k 1990	1-40)0		
Evaluation criteri	а		A	sor ssesment	method	ls		Points	Percentage		

	attendance at lectures and exercises	10	10%					
	seminar papers	20	20%					
	I colloquium	10	10%					
	II colloquium	10	10%					
	Final exam							
	final exam (oral / written)	50	50%					
	IN TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

			UNIV Faculty of T	ERSITY OF Fransport a Study prog	EAST S and Tra	ARAJEVO ffic Engineering raffic			Sea mailing ages		
			ŀ	Profile: Mo	otor Vel	nicles			AOEOJ		
OL CR2 S			l cycle			I year of stud	y				
Course title		Don	artmont of Moto	FUEL	AND L	UBRICANTS TEC	HNOLOGY		stics of Vahielas		
Department		Dep		or venicles	, Opera	tion, Maintenar	ice and Dia	agno	istics of venicles		
Co	de		Cou	Course status Semester					ECTS credits		
САФ115М07	116254,	0210									
Professor/s	Pro	f. dr F	Pero Dugić								
Associate/s									Church and some address of		
N	/eekly h	ours		Individ	ual stu	dent hours (per	semester))	coefficient So		
L	TE		LE	L		TE	LE		So		
2									1,6		
Total teache	r worklo	ad (h	ours, per semes	ter)		Total student w	orkload (h	ours	s, per semester)		
2*	°15 + 1*: 20 ⊢ 1	15 + (5 - 0-	$0^{+}15 = W$			2*15*1,6+	1*15*1,6	+ 0* - 75	15*1,5 = 1 h		
	50 + 1	J+ U=	Tota	workload	• 45 + 7	رح 5 = 120 h	J+ ZJ + U =	- 75	11		
	By	maste	pring this course	the stude	nt will h	e introduced to					
	Wit	h the	physico-chemic	al characte	eristics	of fuels and lubr	icants, aco	quirin	ng knowledge about		
Course aims and	fue	l and	lubricants as ind	ispensable	e media	of thermal ener	gy system	s. Ur	nderstanding the		
learning outcome	ocesses of combustion and energy conversion in internal combustion engines and catalytic										
exhaust treatment.											
Prerequisites	Doe	es not	have								
Teaching method	ls Lec	tures,	, auditory exercis	ses, semin	ar pape	r					
	1. C) efinit	tion of technical	fuels. Fuel	classifi	cation. Element	al fuel com	npos	ition. Stoichiometric		
	rela	relations in fuel combustion processes, theoretical oxygen demand.									
	2. B	Basic properties of solid, liquid and gaseous fuels. Technological processing of petroleum									
	3.0	Chemical structure of liquid fuels: aliphatic, cyclic hydrocarbons, alcohols, ethers, ketones						ols, ethers, ketones			
	4. L	VISIO	n and character	istics of liq	uid fue	ls by purpose: ga	asoline, ga	S OII	s, jet fuels, alcohols,		
		eous uol-to	nuels	omhustior	nroces	sees Exhaust day	205				
	6. D	Detona	ation combustio	n in Otto e	engine .	. Allov fuels. Oct	ane value	of fu	iel.		
	7.1	collo	quium		0	,					
Course content	8. D	eton	ation combustio	n in Diesel	engine	. Prone to inflan	nmation. C	Cetar	ne value of fuel		
course content	9. S	tart t	he cold engine. I	uel volati	ity - va	por pressure acc	ording to I	Reid			
	10.	Fuels	stability. Fuel ag	ing proces	ses. Fue	el storage					
	11.	Fuela	additives, oxygei	nated and r fuols and	reform Letabili	ulated fuels	oquiromor	ato I	moact on the		
	env	vironn	nent	i iueis alic	stabili	ty. Fuel quality i	equiternet	115.1			
	13.	Flue	gas treatment of	internal c	ombust	ion engines - ca	talytic con	vert	ers: Otto engines,		
	Die	sel en	igines, gas and t	wo-stroke	engine	5	•	-	U /		
	14.	Lubri	cants. Basics of f	friction. Ty	pes of I	ubrication. Phys	ico-chemio	cal c	haracteristics of		
	lub	ricant	s. Classification	of lubricat	ing oils.	Lubricating oils	for interna	al co	mbustion engines		
	15.	II coll	oquium	-							
Author	/s		Nome	of publics	DOOK (S)	ublisher	Vac	~	Pages (from to)		
Author	3		The chemistr	v and tech	nology	of netroleum	Tear		Pages (Irom-to)		
Speight, J	l.G.		Ma	rcel Dekke	er. New	York	1991	1	1-418		
			1410	Addition	al readi	ngs					
Author	/s		Nam	e of public	cation,	editor	Year	Year Pages (from			
Fuller, D).		Theory and pra	ctice of lub	oricatio	n for engineers,	1956		1-200		

		John Wiley&Sons, New York							
		Assesment methods		Poi	ints	Percentage			
		attendance at lectures and ex	ercises	10		10%			
		seminar	papers	20		20%			
Evaluation criteria		I colle	10		10%				
		II colle	10		10%				
	Final exa	am							
		final exam (oral / w	50		50%				
	IN TOTA	L	100	כ	100%				
Web sources									
Applicable from	16.06.20	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

ST WCTOHHO				UNIV	ERSITY OF	EAST S	ARAJEVO				2005		
-18-			F	aculty of	Fransport a	and Tra	ffic Engineering	g		- Solar			
82°					Study prog Profile: Ma	ram: 11 htor Vel	rajjic hicles						
1075 45V3 40 44	II.			L cycle	Tojne. Wie		l vear of stu	dv			40E0J		
Course title				reycie	AUT	OMAT	IC STEERING IN		CLES				
Department		Dep	artme	nt of Auto	mation an	d Robo	tics - ETF East S	Sarajev	0				
	Code	, ·		Cou	urse status	;	Semes	ster		ECT	S credits		
CAΦ11SM0)7136555	,0211		V									
Professor/s	Ph	D Miro	oslav k	Costadinov	ić, associa	te profe	essor			-			
Associate/s													
	Weekly h	ours			Individ	lual student hours (per semester			ester)) Student workload coefficient So			
L	TE			LE	L		TE	L	.E		So		
2	1			1	2		1		1		1,5		
Total teacl	her workl	oad (h	nours,	per semes	ter)		Total student	workloa	ad (ho	urs, per s	emester)		
	2*15 + 1*	15 + 1	1*15 :	= W			2*15*1,5	+ 1*15	*1,5 +	1*15*1,5	= T		
	30+1	5+ 15:	= 60 N	Tata	worklass		45 00 - 150 h	+22,5+	- 22,5 :	= 90 N			
	1	ntrod	ucing	students +	o the man	agemer		a sube	vstam	s that affe	oct the		
	1. he	havior	r of vel	hicles as a	whole	agemei		re subs	ystern	s inai allt			
Course aims an	d 2.3	Studer	nts wil	l be able t	o formulat	e and s	olve managem	ent rec	uirem	ents relat	ed to the		
learning outcor	mes mo	ost cor	nmon	ly used au	tomotive s	ubsyste	ems by applying	g the b	asics o	of automa	tic control.		
-	3. 1	Desigr	n of co	ntrol syste	ems of auto	omotive	e subsystems si	uch as:	brakir	ng system	, vehicle		
	ha	ndling	syste	ms and pro	opulsion sy	/stem							
Prerequisites	Do	Does not have											
Teaching metho	ods Leo	tures	, audit	ory exerci	ses, semin	ar pape	er						
	1.0	Conce	pt and	l definitior	n of autom	atic cor	ntrol system						
	2.	2. Laws of governance 3. Mathematical models of automatic control systems and transmission functions											
	3.	3. Mathematical models of automatic control systems and transmission functions											
	4.	4. Laplace transform.											
	5.	5. Frequency analysis of automatic control systems 6. Stability of automatic control system											
	7	7. I colloquium											
Course content	. 8.	8. Intelligent management. Fuzzy logic.											
	9. 9	9. Signals, sensors and actuators in vehicles											
	10.	10. Control devices and communication protocols in vehicles											
	11.	Cont	rol sys	tems									
	12	12. Vehicle braking systems											
	13.	Vehio	cle spe	e speed control system									
	14.	Dete	ction a	and diagno	osis of erro	rs							
	15		ioquiù	111	Tovth	nor (c)							
Autho	or/s			Name	of publica	tion. n	ublisher		Year	Pag	zes (from-to)		
			Con	tinuous au	utomatic c	ontrol s	vstems, Scient	ific			500 (0 00)		
Stojic	M.				book, B	elgrade	2		1990)			
Uwe Kiencke, L	ars Nielse	n	"Auto Drive	utomotive Control Systems: For Engine, riveline, and Vehicle", Springer Verlag					2005				
Стјепановић А.	,		Telen	natics syst	ems, Unive	ersity of	f East Sarajevo,	,	2020				
Костадиновић М. Faculty of Transport and Traffic Engineering, Doboj													
					Addition	al read	ings						
Autho	or/s			Nam	e of publi	cation,	editor		Year	Pa	ges (from-to)		
Evaluation crite	eria			A	ssesment	method	ds			Points	Percentage		

	attendance at lectures and exercises	10	10%
	seminar papers	20	20%
	I colloquium	10	10%
	II colloquium	10	10%
	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

	Contraction of the second	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							Joseph P	
82°			l	Profile: Mo	otor Vel	hicles				
15 x 580 30			l cycle			l year of stu	ıdy			(ORO)
Course title		Deventor			M	OTOR VEHICL	ES			
Department		Departm	ent of Moto	or vehicles	, Opera	ition, Mainten	ance and Dia	agnost	tics of	venicles
(Code		Cou	urse status	i	Semester			ECTS	credits
CAΦ11SMC)7106857,	,0330								
Professor/s	Pro	or. dr iviesu	d Ajanović							
Associaters									Stude	nt workload
	ours		Individual stud		dent hours (pe	er semester)	er) coefficie		fficient S _o	
L	TE		LE	L		TE	LE			So
3	3		0	3		3	0			1,33
Total teach	ner worklo 3*15 + 3* 45+ 4	oad (hours 15 + 0*15 5+ 0= 90 h	, per semes = W	ter)		Total student 3*15*1,33	workload (h + 3*15*1,33 50+ 60 + 0 =	ours, } + 0*1 120 h	per ser 15*1,3	nester) 3 = T
	10 1	5.0.501	Total	workload	90 + 1	20 = 210 h		12011		
Course aims an learning outcor	and By mastering this course the student acquires knowledge: From the field of dynamic properties of motor vehicles and getting acquainted with the								ith the	
	des	sign solutio	ons of indivi	dual assen	nblies					
Prerequisites	Do	Does not have								
Teaching metho	ods Leo	Lectures, auditory exercises, seminar paper								
Course content	1. F 2. F 3. L 5. E 6. E 7. I 8. E 9. V 10. 11 12. 13 14. 15.	 Historical overview of motor vehicle development. Propulsion engines of motor vehicles Forces acting on motor vehicles, driving resistances, traction forces Limit of traction forces with respect to available friction force Lateral guidance forces, vertical forces Balance of traction forces and driving resistance. Power balance Basics of braking theory, balance of forces and energy during braking I colloquium Determination of deceleration, braking factor, braking distance and time. Stop the road Vehicle stability. Longitudinal and transverse stability Vehicle handling. Vehicle comfort Main assemblies of motor vehicles Wheels and tires Support system Management system. Braking system I colloquium 								
Autho	or/s		Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
Krpar	ı,D.	Mo	otor vehicle	s, II. editio Zagr	n, Unive eb	ersity of Zagrel	b, 1990	C		1-260
				Addition	al read	ings				
Autho	or/s		Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)
			A	ssesment	method	ls		Poin	ts	Percentage
Evaluation crite	e ria Pre	e-exam obl	igations							
				attei	ndance	at lectures and	dexercises	10		10%
						semi	nar papers	20		20%

	I colloquium	10	10%
	II colloquium	10	10%
	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

STOT Y WCTOWO			UNIVERSITY OF EAST SARAJEVO							TAL	AIRA DATE	
н Н УИС					Study proc	inu fra	raffic	B		Boge		
82°C					Profile: Mo	otor Vel	nicles				AOFOL	
LA OF CASP				I cycle			I year of stu	ıdy			and the second	
Course title		Dor	artmo	nt of Mot	FUND	AMENT	ALS OF VEHIC	LE DYNAMIC	<u>S</u>	ctics of	Vahielas	
Department		Det	Jartine			, Opera			agno	ignostics of vehicles		
	Code			Course status Semester			ster		ECTS	credits		
CAΦ11SM	0711646	60330)									
Professor/s	Р	rot. dr	Mesuc	l Ajanović								
Associate/s										Stude	ent workload	
	Weekly	hours	I		Individ	ual stu	dent hours (pe	er semester))	coe	efficient So	
L	TE			LE	L		TE	LE			So	
3	3			0	3		3 Tatal student	0			<u>1</u>	
i otal teac	3*15 + 3	aoad (I 8*15 +	nours, 0*15 :	per semes = W	ster)		3*15*	workioad (h 1 + 3*15*1 -	ours F 0*1	, per se 5*1 = 1	mester)	
	45+	45+ 0=	= 90 h	- ••			5 15	45+45+0=	= 90 ł	י - ב ו		
				Tota	l workload	l: 90 + 9	0 = 180 h					
	B	y mast	ering t	his course	the stude	nt acqui	ires knowledge	e:				
	0	n the b	basic co	oncepts of	the dynan	nics of r	notor vehicles	, longitudina	al, tra	ansvers	e and vertical	
Course aims an	id fo	orces a	cting o	n the vehi	cle during	its mov	ement. Acquir	ing the know	wledg	ge need	led to assess	
learning outcol	mes u	nalvsis	alysis of dynamics in the design and construction of motor vehicles and their systems and									
	u	nits.	oruyi		ne design a			otor venicie	5 0110	a then s	systems and	
Proroquisitos												
	D	oes no	t have									
Teaching meth	ods Le	ectures	s, audit	tory exerci	ses, semin	ar pape	r					
		. Basic concepts of motor vehicle . Basic concepts of motor vehicle dynamics										
	3	. Point mechanics										
	4	4. Vehicle aerodynamics										
	5	. Resistance to movement										
	6	5. Transmission of forces between ground and wheels										
Course content	7.	7. I colloquium 8. Selection of drive motor										
course conten	9	Moto	r chara	acteristic c	onverters							
	1	0. Depa	arture	of the veh	icle from t	he place	5					
	1	L1 Rectilinear movement of vehicles										
	1	2. Vehi	icle bra	aking								
	1	3 Vehio	cle per	formance	,							
		4. Iran	Isverse	vehicle dy	ynamics. V	ertical v	enicle dynami	ics. Collision	mec	nanics		
		5. 11 CO	noquiu		Text	book (s)						
Autho	or/s			Name	of publica	tion, pu	ublisher	Yea	r	Pag	es (from-to)	
Knor	P.			Dynamics	of motor	vehicles	, Faculty of	2004	5		1-328	
			N	1echanical	Engineerin	ng Saraj	evo, Sarajevo	2000				
Auth	or/s			Nor	Addition	al readi	ngs editor	Vea		Dag	es (from to)	
Autho	51/5		Theo	rv of moto	or vehicle n	notion	Faculty of	Tea		гав		
Jankovic D., 1	Fodorovi	c J.	Mech	nanical Eng	gineering, I	Belgrad	e	1991	1-225			
_			1	А	ssesment	method	ls	I	Poi	nts	Percentage	
Evaluation crite	eria											

	Pre-exam obligations								
	attendance at lectures and exercises	10	10%						
	seminar papers	20	20%						
	I colloquium 10 10%								
	II colloquium	10	10%						
	Final exam								
	final exam (oral / written)	50	50%						
	IN TOTAL	100	100%						
Web sources									
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	raffic engine	ering						

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						Set Thailes of Art Part	
				Study prog	ram: Ti	raffic hislos				
15 15 15 15 15 15 15 15 15 15 15 15 15 1	II.		l cycle	Projile: Ivic		l year of stud	v		AOEOJ	
Course title			MOTORS SUS							
Department		Departm	Department of Motor Vehicles, Operation, Maintenance and Diagnostics of Vehicles							
	Code		Co	urse status	5	Semester			ECTS credits	
САФ115М0	07103966	,0330								
Professor/s	Pro	of. dr Zora	. dr Zoran Kistikić							
Associaters									Student workload	
	Weeklyh			Individ	ual stu	dent hours (per	semester)		coefficient S _o	
L	TE		LE	L		TE	LE		So	
3	3		0	3		3	0		1	
l otal teaci	ner worki 3*15 + 3*	000 (nours) 15 + 0*15	, per semes = 90	ster)		10tal student w 3*15*1 33 + 3	'Orkioad (nc 2*15*1 22 -	ours, + ∩*	, per semester) 15*1 33 = 90	
	5 15 7 5	15 10 15	 Tota	l workload	1:90+9	0 = 180 h	5 15 1,55	. 0	15 1,55 - 50	
	By	mastering	this course	the stude	nt will b	e able to:				
	1.1	o learn ab	out the divi	sion of SU	S engin	es, their charact	eristics and	l bas	sic elements;	
Course aims an	d 2.1	o get acqu	ainted with	n the princi	ples of	operation of tw	o-stroke an	nd fo	our-stroke SUS	
learning outcor	nes en	ingines;								
_	3.1	engines;								
		acquired k	nowledge a	oplied in p	ractice					
		acquireu k	ino medge d	ppred in p	i detrect					
Prerequisites	Do	es not hav	e							
Teaching metho	ods Leo	tures, aud	litory exerci	ses, semin	ar pape	er				
	1.1	1. Engine definition. History of SUS engine development								
	2.5	2. SUS engine division 3. Geometric parameters of the SUS engine Basic elements, mechanisms and systems of SUS								
	S. C	3. Geometric parameters of the SUS engine. Basic elements, mechanisms and systems of SUS								
	4.1	engines 4. Principle of operation of four-stroke and two-stroke SUS engines								
	5.1	5. Piston mechanism								
	6. (Crankshaft	<pre><shaft and="" engine="" flywheel<="" pre=""></shaft></pre>							
Course content	7.1	Mechanisr	n for changi	ng the wo	rking m	aterial (I colloqu	ıium)			
	8.1	Basic SUS (engine syste	ems LIS ongino	_					
	9.	 Ineoretical cycles of SUS engines Thermal - physical properties of fuels, mixtures and combustion products 								
	11.	10. Inermal - physical properties of fuels, mixtures and combustion products								
	12.	Processes	of changin	g the work	ing sub	stance in SUS er	ngines			
	13.	The proce	ess of comp	ression, co	mbusti	on and expansic	on in oto en	gine	2S	
	14.	Compres	sion, combu	istion and	expansi	on process in di	esel engine	S		
	15.	Indicator	and effectiv	/e indicato	rs of SU	IS engines (II col	loquium)			
Autho	or/s		Name	of publica	tion. n	ublisher	Year		Pages (from-to)	
Todoreción T	A mt	7	Fundamen	tals of SUS	engine	es, Faculty of	1007	,		
	, Antonic	۷.	Technical	Sciences N	Novi Sad	d, Novi Sad,	1997			
Klina	r, I.	SL	JS engines, a	auxiliary te	xtbook	, FTN, Novi Sad,	2008			
				Addition	al read	ings			D ((
Autho	or/s	Dec	Nam	ne of public	cation,	editor Transportation	Year		Pages (from-to)	
Todorovic, T.,	, Antonic	Z. Doł	noi	ngines, rac	uity of	rransportation	2009			
		DOL	, oj,							

Tomic, M., Petrovic, S.		Internal combustion engines, Faculty of Mechanical Engineering, Belgrade	2000								
		Assesment methods		Poi	nts	Percentage					
	Pre-exa	Pre-exam obligations									
		attendance at lectures / exe	ercises	10		10%					
		I am positively assessed. paper / project /	10		10%						
Evaluation criteria	case study - group work										
		test / collo	2x1	0	20%						
	Final exam										
			oral	60		60%					
	IN TOTA	L	100)	100%						
Web sources											
Applicable from	16.06.20	021 - 175 Session of the Councile, Faculty of Transpor	rt and Ti	raffic	engine	ering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles							Solar Anilli Oracit		
900 45rs 30				Profile: IVIC	otor vei	l vear of stu	ıdv			AOEOJ	
Course title			TCYCIE		FUEI	SUPPLY SYST	EMS				
Department	Dep	Department of Motor Vehicles, Operation, Maintenance and Diagno						agnos	stics of	Vehicles	
Code	<u> </u>		Course status			Semester			ECTS	credits	
САФ115М0711	6565,0220)									
Professor/s	Prof. dr	Zdravk	o Nunić								
Associate/s									. .		
Wee	kly hours	1	Indivi		ual stu	dent hours (pe	er semester))	Student workload coefficient So		
L	TE		LE			LE			S₀		
2 Tatal tasaharan	2	 	0	2		2	0			1,5	
2*15	orkioad (1 + 2*15 +	nours, 0*15 =	per semes = W	ter)		2*15*1,5	workioad (n 5 + 2*15*1,5	ours, + 0*1	per se 15*1,5	mester) = T	
	30+ 30+ 0:	= 60 h					45+45+0=	= 90 h	1		
	1		Tota	l workload	1:60+9	0 = 150 h					
	By mast	ering th	nis course	the stude	nt acqu	ires knowledge	e:				
Course aims and	With the	e meth	ods of fue	I supply to	the en	gine sus, the p	rinciples of (opera	ition of	individual	
learning outcomes	rogulati	er suppry systems, trends in their development, as well as introduction to the methods of guidation of fuel supply in different modes of engine operation									
	regulatio	regulation of fuel supply in different modes of engine operation.									
Prerequisites	Does no	Does not have									
Teaching methods	Lectures	s, audit	ory exerci	ses, semin	ar pape	er					
Course content	 Role, Role, Basic Hydro Chara injector Optin The ro To collo Types Moto Cono Engir How Type How Type Horacte Sill con 	 Role, requirements and general characteristics of fuel supply in oto and diesel engines Basic divisions of the fuel supply system Hydrodynamic processes in the diesel fuel supply system Characteristic sizes of the injection process (injection characteristics, jet parameters, injector characteristics and their impact on injection) Optimal fuel injection parameters for diesel engines The role and tasks of the regulator in diesel engines To colloquium Types of regulators according to construction and method of regulation Conditions of static and dynamic equilibrium Engine-to-fuel system stability parameters for diesel engines How to supply fuel and create a mixture with the engine Types of fuel supply systems for oto engines (carburetion, injection) Principles of modern electronic regulation in oto engines. Development trends, with basic characteristics. 									
Author/s			Name	of publica	tion n	uhlishor	Vea	r	Dag	es (from-to)	
Filipovic Ivar	1		Oprem	a motora s	sui MF	Saraievo	199	4	rag	1-188	
	•	I	opieili	Addition	al read	ings	1994	*		1 100	
Author/s			Nam	e of publi	cation,	editor	Yea	r	Pag	es (from-to)	
Cernej A., Dobovi	sek Z.	Fi	uel supply	diesel and Svjetlost,	l oto en Sarajev	gines, IGKRO o	1980		1-205		
		1	Α	ssesment	method	ls		Poir	nts	Percentage	
Evaluation criteria	Pre-exa	m oblig	ations								

	attendance at lectures and exercises	10	10%
	seminar papers	20	20%
	I colloquium	10	10%
	II colloquium	10	10%
	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles									
Course title					NATIVE FU	ELS AN		IONAL VEH	IICLE	DRIVE	S	
Department		Dep	Department of Motor Vehicles, Operation, Maintenance and Diagnostics of Vehicles									
(Code			Course status			Semes	ter		ECT	S credits	
CAΦ11SM0	0721666	56,0311	L									
Professor/s	F	Prof. dr	Pero D	Dugić								
Associate/s										Church		
	Weekly	/ hours	1		Individual student hours			(per semester)		coefficient S		
L	Т	TE LE		LE	L		TE	LE			So	
3 Tatal tasal	1	L Ideed /I		1	63		21	21			1,4	
Total teach	3*15 +	кюай (і 1*15 +	1*15 =	: W	ster)		2*15*1,5	+ 2*15*1,5	+ 0*	, per se 15*1,5	= T	
	45+	15+15	o= 75 h	T - 1 - 1	ا ایانیمید	75 . 44	۲ ۲ – ۱۹۵۴	45+45+0=	= 90	h		
	-)	oring ti	I Otal	WORKIOad:	: 75 + 10	J5 = 180 h					
Course aims an learning outcor	Course aims and learning outcomes By mastering this course the student acquires knowledge: On potential alternative fuels and their advantages and disadvantages in relation to fossil fuels in SUS engines							n to fossil				
Prerequisites	C	Does not have										
Teaching metho	ods L	Lectures, auditory exercises, seminar paper										
Course content	1 2 3 4 5 6 7 7 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1	 An overview of global trends in fuel consumption and vehicle growth, as well as fuel reserves for motor vehicle propulsion Pollutants in the exhaust gases from the SUS engine Measures to control emissions of pollutants Renewable energy sources Types of alternative fuels Production, handling and storage of alternative fuels I colloquium Properties of alternative fuels and their comparison with conventional fuels for motor vehicle propulsion Combustion efficiency and the possibility of reducing emissions of pollutants Use of biodiesel and its mixtures in SUS engines Use of CNG to drive the SUS engine Use of fuel cells to drive the SUS engine. A brief overview of other types of alternative motor vehicle propulsion 										
					Textb	ook (s)						
Autho	or/s		N.4 - 1	Name	of publica	tion, p	ublisher	Yea	r	Pag	es (from-to)	
OEC	D		Mot	or Vehicle bey	e Pollution /ond 2010,	– Kedu OECD,	ction strategies Paris	1995	5		1-378	
					Addition	al readi	ngs					
Autho Cernej A., Do	or/s obovisel	k Z.	Liquio	Nam fuel savin culty of M	ne of public ng - selecte lechanical I	cation, ed chap Enginee	editor ters in motorin tring, Sarajevo	g, 1980	r	Pag 1-285	es (from-to)	
									D -1	-	Democrate	
Evaluation crite	eria			A	ssesment	method	15		POI	nts	Percentage	
	Pre-exam obligations											
-----------------	--	---------------	-------									
	attendance at lectures and exercises	10	10%									
	seminar papers	20	20%									
	I colloquium	10	10%									
	II colloquium	10	10%									
	Final exam											
	final exam (oral / written)	50	50%									
	IN TOTAL	100	100%									
Web sources												
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering									

	CANAL BE		UNIV Faculty of T	ERSITY OF	EAST S and Tra	ARAJEVO	g	Seatton Mill Contraction		
			S	Study prog Profile: Ma	ram: Ti tor Vel	raffic nicles			G	
4503 4503 40 145			l cycle			l year of stu	ıdy			40E0J
Course title			М	ECHATRO	NIC SYS	TEMS IN ENG	INES AND V	EHIC	LES	
Department		Depa	artment of Moto	or Vehicles	, Opera	tion, Mainten	ance and Di	agno	stics of	Vehicles
	Code		Cou	ırse status	;	Seme	ster		ECTS	credits
САФ115М0	7216766	,0311								
Professor/s	Pro	of. dr Si	lobodan Lubura							
Associate/s									Stude	nt workload
	Weekly ł	nours		Individua		tudent hours (per semeste			coe	efficient So
L	TE		LE	L		TE	LE			S ₀
3 Tatal taash	1	and (ha	1	63		Z1 Total student	21 workload (h		norco	1,4
Total teach	1er Worki 2*15 ± 1*	0ad (nd 15 + 1	*15 – W	ter)		2*15*1 <i>/</i>	+ 1*15*1 /	iours + 1*	, per sei 15*1 /	– T
	45+1	13 + 1 5+ 15=	15 – W			5 15 1,4	3 + 21 + 21	- 10 ⁻	15 1,4 Sh	- 1
	, J . I	. 10-	Total	workload	75 + 1)5 = 180 h		100		
Course aims and	d By	master	ring this course	the studer	nt acqu	res knowledge	e and acqua	intar	nce with	
learning outcon	nes Wi	th elec	tronic motor ve	hicle syste	ems and	the basics of	automotive	mec	hatronio	cs
Prerequisites	Do									
Teaching metho	ods Leo	Lectures, auditory exercises, seminar paper								
	1.	ntrodu	uction, historical	l overview	, basics	of electronics	applied in r	noto	r vehicle	es
Course content	2 Lig 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 pa: an 15	 Accumulators and machines for generating electricity. Dynamo machines. Alternate Lights Electrical starting devices for internal combustion engines. Sensors. Actuators Electrical equipment for Otto engine operation Electronic equipment for Otto engine operation. Computer-controlled injection in 0 engines Computer-controlled injection in Diesel engines I colloquium Dynamic model of automobile drive Dynamic model of Otto engine Automatic transmission modeling Car tire models Vehicle dynamics models Suspension models TCS traction control. Anti-lock braking systems ABS. Equipment to increase driver passenger comfort. Air conditioning devices Navigation devices. Devices for displayin and parameters in the driver 's field of vision and control instruments 							river and laying data	
Autho	or/s		Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
Ribbe	ens		Autor	notive Har	ndbook	Bosch	200	0		1-330
				Addition	al read	ngs				
Autho	or/s		Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)
BOSCH Spring	ger Verla	g,	Kraftfah	rtechnisch	nes taso	henbuch	1999		1-385	
			A	ssesment	method	ls		Poi	nts	Percentage
Evaluation crite	e ria Pre	e-exam	obligations	atter	ndance	at lectures and	d exercises	10		10%

	seminar papers	20	20%
	I colloquium	10	10%
	II colloquium	10	10%
	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

		F	UNIV aculty of ⁻	TRANSPORT Transport a Study prog Profile: Mo	EAST S and Tra gram: T otor Vel	ARAJEVO ffic Engineerin raffic hicles	g		ADEDJ				
45 45 E ST		I cycle I year of study											
Course title			ROAD VEHICLE MATERIALS										
Department		Dep	bartme	nt of Moto	or Vehicles	s, Opera	tion, Mainten	ance and Di	agnostics of Vehicles				
c	Code			Course status Semester			ster		ECTS	credits			
САФ115М0	7216965	,0220	220										
Professor/s	Pro	of. dr	Bojan I	Marić									
Associate/s													
	Weekly I	nours			Individ	ual stu	dent hours (pe	er semester)	Stude coe	nt workload efficient So		
L	TE			LE	L		TE	LE			So		
2	2			0	2		2	0			1,5		
Total teach	1er workl 2*15 + 2*	oad (ł 15 + i	10urs, 0*15 =	per semes = W	ter)		Total student	workload (h + 2*15*1 5	iours + 0*	s, per se 15*1 5	mester) = T		
-	30+3	30+ 0=	= 60 h				2 10 1,0	45 + 45 + 0	= 90	h			
				Tota	l workload	1: 60 + 9	0 = 150 h						
Course aims and learning outcomes By mastering this course the student acquires knowledge and acquain With structure properties and application of materials for road vehicle and high strength steels, light metals, composite materials and wood						intar cle co d	nce with onstruct	ions - high					
Prerequisites	Do	es no	t have										
Teaching metho	ods Lee	ctures	, audit	ory exerci	ses, semin	ar pape	er						
Course content1. Material requirements for materials for use in road vehicles 2. Mechanisms of material hardening 3. Properties and applications of high and high strength steels 4. Structure, properties and application of steels and castings for elevated and high temperatures 5. Structure, properties and application of Ni and Co alloys 6. Structure, properties and application of ceramics and intermetallic compounds 7. I colloquium 8. Structure and properties of aluminum alloys 9. Types and applications of aluminum alloys 10. Structure, properties and application of cellular materials 11. Application of cellular materials in road vehicles 12. Structure and properties of composite materials 13. Application of composite materials in road vehicles 14. Structure and properties of wood. Application of wood in road vehicles						igh s							
Autho	rla			Namo	l extr	DOOK (S)	ublichor	Voa	r	Dag	os (from to)		
Autho	1/3			Material	s Science a	nd Eng	ineering I	Tea	•	Fage			
Calister,	W.D.			Wile	ey&Sons, li	nc. New	/ York	200	0		1-218		
Additional readings													
Autho	or/s		Name of publication, editor				Yea	r	Page	es (from-to)			
Filetin, T; Kov Indof	vacicek, F [:] , J	;	Pr	operties a	nd applica Zagr	tion of eb	materials, FSB	2002		1-185			
				Α	ssesment	method	ls		Po	ints	Percentage		
Evaluation crite	e ria Pro	e-exar	n oblig	ations	atter	ndance	at lectures and	d exercises	10		10%		

	seminar papers	20	20%
	I colloquium	10	10%
	II colloquium	10	10%
	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

A CONTRACTOR			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering							Satural Man Cart
				Study prog	ram: T	raffic	2			
10 10 10 10 10 10 10 10 10 10 10 10 10 1)			L cycle	Profile: Mo	otor Vel	l vear of stu	dv		A OEOJ
Course title				reycie	ACCOUN	ITING A	ND FINANCE F	or Manac	SERS	
Department		Dep	artme	nt of Acco	unting, Au	iditing a	and Business Fi	nance - FPE	Bije	ljina
(Code			Cou	urse status	5	Semes	ter		ECTS credits
САФ115М0	07217965	,0220								
Professor/s	Pro	of. dr S	Slobod	an Suboti	ć					
Associate/s										Student workload
	Weekly h	ours			Individ	lual stu	dent hours (pe	r semester))	coefficient So
L	TE			LE	L		TE	LE		So
Total toac	hor workly	and (h		nor comos	tor)		Total students	workload (h	ours	nor comostor)
Total teach	2*15 + 2*	15 + (0*15 =	er senies = W	lei)		2*15*1.5	+ 2*15*1.5	+ 0*	5, per semester) 15*1.5 = T
	30+3	0+0=	= 75 h				,c	45 + 45 + 0	= 90	h
				Tota	l workload	l: 60 + 9	90 = 150 h			
	Ву	maste	ering tl	nis course	, students	will be	able to master	the basic co	once	pts and problems of
	acc	ounti	ing and	I finance i	n order to	prepare	e for making th	e best poss	ible l	business decisions.
Course aims an	d Un	dersta	anding	the field of	of finance	and acc	ounting is key	to the ratio	nal a	iction of each
learning outcom	the	nager	ger to assess the financial situation in the company, compare the financial position of							
	obt	ain th	he nece	essarv fun	ds for smo	oth one	eration, growth	n and develo	nu o _l come	ent.
	0.51			cooling run		our op			<u>opin</u>	
Prerequisites	Do	es not	t have							
Teaching meth	ods Leo	tures	, audit	ory exerci	ses, semin	ar pape	er			
	1.1	ntrod	luction	(need for	basic know	wledge	in the field of a	accounting	and f	finance).
	2.4	Accou	inting,	Accountin	g Law, Inte	ernatio	nal Accounting	Standards		
	3.7	Accou	alvsis of accounting reports							
	4.7	Mana	angement Accounting							
	6. 0	Cost n	st management							
	7. F	irst c	olloqu	ium						
Course content	: 8. E	Busine	ess pla	n. Financia	al business	plan				
	9. E	Interp	prise fi	nancing. C	ash flows.	The tin	ne value of mo	ney. Financ	ial le	verage.
	10.	Capit	tal mar	kets. Com	ipany finar	ncing. P	roblems of fina	incing		
	11.	Bond	ncing b Is	y issuing s	securities					
	13.	Ordi	narv ar	nd prefere	ntial actio	ns. Oth	er securities			
	14.	Maki	ing inv	estment d	ecisions. E	valuati	on of the finan	cial efficien	cy of	the project
	15.	Seco	nd coll	oquium						
					Text	book (s)				
Autho	or/s			Name	of publica	ition, p	ublisher	Yea	r	Pages (from-to)
1. Stevanov	ric Nikola, Teodor			1. Manage	ement Acc	ounting	g, Faculty of	201	0	
2. Kovacevic	Liuhimir		2 (Corporate	Finance M	lanagen	nent - Business			
Vunjak I	Nenad		Fina	nce, Facul	ty of Trans	portati	on Doboj, Dobo	2009 Dj	9	
3. Subotic Slobo	odan, Miro	ovic		3. Financ	ial market	s, instit	utions and		0	
Gora	an			insti	ruments, V	/ŠTH Tre	ebinje	2020	0	
					Addition	al read	ings			
Autho	or/s		6	Nam	e of publi	cation,	editor	Yea	r	Pages (from-to)
Vunjak Ner	had, Vitez		Corp	orate cap	ital marke	t manag	gement, ANU R	S 2018		

Miroslav, Radovic	Milan	Banja Luka, VŠMB Belgrade						
		Assesment methods	Р	oints	Percentage			
	Pre-exar	n obligations						
	Attenda	nce at lectures / exercises	5		5%			
Free land to a sold out o	Seminar	y work	5		5%			
Evaluation criteria	The first	colloquium	2	0	20%			
	Second	Colloquium	2	0	20%			
	Final exa	am						
	Oral		5	0	50%			
	IN TOTA	L	1	00	100%			
Web sources								
Applicable from	16.06.20	21 - 175 Session of the Councile, Faculty of Transp	ort and Traf	ic engine	ering			

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic							Column 12	005 AND CARTER	
82°C			Profile: Motor Vehicles							, D	AOFOL
A OF CASE				I cycle			I year of stu	ıdy			0
Course title							CONSTRUCTI	ON SUS			
Department		Dep	bartme	ent of Moto	or vehicles	s, Opera	ition, Mainten	ance and Dia	agno I	STICS OF	Venicles
	Code	7 0000		Coι	urse status	;	Seme	ster		ECTS	credits
)/11/0/	//,0330) Spožar	na Dotkovi	<u> </u>						
Associate/s	P	101. UI	Shezai								
Associate									. Student workloa		
	Weekly	hours	-		Individ	ual stu	dent hours (pe	er semester))	coe	fficient S _o
L	T	E		LE L TE		LE			So		
3	3	}		0	2		2	0			1,33
Total teac	her wor	kload (l	hours,	per semes	ter)		Total student	workload (h	ours	, per sei	mester)
	3*15+3	3°15 +	0°15 : -00 h	= vv			3*15*1,33	+ 3*15*1,33	5 + 0" - 1 20	15°1,3	3 = 1
	431	4570	- 50 11	Total	workload	· 90 + 1	20 = 210 h	JU + UU + U -	- 120	11	
	В	v mast	ering t	his course	the stude	nt acqu	ires knowledge	e and acqua	intan	ice with	
Course aims an	d C	Compre	hensiv	e insight ir	nto theore	tical and	d practical kno	wledge of e	ngine	e dynan	nics and
learning outcom	mes c	onstruc	ction o	f basic ele	ments of e	ngines	and engine sys	stems	0		
Prerequisites	C	Does not have									
Teaching meth	ods L	ectures	s, audit	tory exerci	ses, semin	ar pape	er				
	1	. Const	ructive	e concepts	, types and	divisio	ns of engines				
	2	. Const	ruction	n of fixed e	engine part	ts					
	3	. Kinen	natics a	and dynam	nics of the	motor r	nechanism				
	4	. Uneve	ingine balancing								
	5	Engin	ingine piston group construction								
	7	' Loollo	colloquium								
Course content	: 8	. Conne	onnecting rod and crankshaft construction								
	9	. Crank	rankshaft construction								
	1	0. Cons	Construction of engine distribution system								
	1	1. Vibra	Vibration problem in the engine and engine suspension								
	1	2. Tors	Torsional oscillations of the engine crankshaft								
	1	.3. Engi	Engine cooling system								
		4. Engi	ne iubi Iloquiu	rication sys	stem. Engi	ne start	ing system.				
		5. 11 00	noquiu		Text	nook (s)					
Autho	or/s			Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
						· •					
					Addition	al read	ings				
Author/s Name of publication, editor Year Pages							es (from-to)				
				A	ssesment	method	ls		Poi	nts	Percentage
		ro over	m ahli-	ations							
Fuelwetter - 1		re-exal	פוומס וו	sations	atte	ndance	at lectures and	d evercises	10		10%
Evaluation crite	eria				allel	luance	at iectul es dill	nar naners	20		20%
							30111		10		10%
								colloquium	10		10%
							11	Jonoquium	10		10/0

	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						South a life oan a				
82°C					Profile: Mo	otor Vel	nicles				AOEOJ	
OL CREACE		-	I cycle I year of study									
Course title		Dor	artmo	nt of Mot	or Vahielar	ENGI	IE EQUIPMEN	T SUS	2000	ctics of	Vahielos	
Department		Det	Jartine			s, Opera						
	Code			Со	urse status	5	Seme	ster		ECTS	credits	
САФ115М()711717	6,0320)									
Professor/s	Pi	rot. dr	Mesuc	l Ajanović								
Associate/s									Student workload			
	Weekly	hours	_		Individ	lual stu	dent hours (pe	er semester))	coe	fficient S _o	
L	TE			LE L TE		LE	LE		So			
3	2			0	63		42	0			1,4	
Total teac	her work	load (l	hours,	per semes	ter)		Total student	workload (h	ours	, per sei	mester) T	
	3~15 + 2 45+	20±0-	0°15 : - 75 h	= vv			3*15*1,4	4+ 3*15*1,4 52 ± 42 ± 0 =	+ 0*	15°1,4= h	1	
	43+	30+0-	- / 5 11	Tota	workload	· 75 + 1	15 = 180 h	55 + 42 + 0 -	. 105			
_	. B	v mast	ering t	his course	the stude	nt acqu	res knowledge	e and acqua	intan	ce with		
Course aims an	d Co	ompre	hensiv	e insight ir	nto theore	tical and	d practical kno	wledge of e	ngine	e dynam	nics and	
learning outcom	nes co	onstru	ction o	f basic ele	ments of e	ngines	and engine sys	stems				
Prerequisites	D	Does not have										
Teaching meth	ods Le	ectures	s, audit	ory exerci	ses, semin	ar pape	r					
	1.	Intro	ductory	/ considera	ations on t	he form	ation of the m	nixture				
	2.	Forma	ation o	f a mixtur	e in a gaso	line eng	ine using a ca	rburetor				
	5.	Comn	nie iue arison	of system	and carbu	iretor si	vstem					
	5.	5. Electronically controlled fuel injection systems										
	6.	. Basic hydraulic elements of the system										
	7.	I collo	colloquium									
Course content	: 8.	3. Diesel mixture formation systems										
	9.	high p	igh pressure pumps									
). Injec	Injectors									
	1	L. Dies	viesel fuel injection systems with electronic regulation									
	13	Pump-injector system with electronic regulation 6. Common Rail Engine Cooling and Exhaust Systems										
	14	4. Ignit	ion sys	stems for o	oto engine	s - conv	entional and e	electronically	/ con	trolled.		
	1	5. II co	lloquiu	m								
					Text	book (s)						
Autho	or/s			Name	of publica	ition, p	ublisher	Yea	r	Page	es (from-to)	
•					Addition	al read	ings					
Autho	or/s			Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)	
	-				•							
			1	Α	ssesment	method	ls		Poi	nts	Percentage	
	PI	e-exai	m oblig	gations					-			
Evaluation crite	eria				atte	ndance	at lectures and	d exercises	10		10%	
							semi	nar papers	20		20%	
							10	colloquium	10		10%	
							ll c	colloquium	10		10%	

	Final exam		
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles							A050J		
Course title			i cycle	V							
Department		Dena	artment of Mot	r Vehicles	Onera	tion Mainten	ance and Di	agnostics of Vehicles			
Department		БСра		or verneres	, 00010						
Co	ode		Cou	Course status Semester			ster		ECTS	s credits	
CAФ11SM07	117277,	0330									
Professor/s	Pro	f. dr Zo	oran Ristikić								
Associate/s											
v	Veekly h	ours		Individ	ual stu	dent hours (pe	er semester))	Stude coe	ent workload efficient So	
L	TE		LE	L		TE	LE			So	
3	3		0	3		2	0			1,33	
Total teache	er worklo	oad (ho	ours, per semes	ter)		Total student	workload (h	ours	, per se	mester)	
3	*15 + 3*:	15 + 0	*15 = W			3*15*1,33	+ 3*15*1,33	3 + 0*	*15*1,3	3 = T	
	45+ 4	5+ 0=	90 h			(50 + 60 + 0 =	: 120	h		
			Total	workload	: 90 + 1	20 = 210 h					
Course aims and	Byi	master	ring this course	the stude	nt acqui	res knowledge	e and acqua	intan	ice with		
learning outcom	es con	Istruct		enicies and	trailers	. Basic concep	ots of vehicle	e con	structio)n	
Prerequisites	Doe	es not	have								
Teaching method	ds Lec	tures,	auditory exerci	ses, semin	ar pape	r					
Course content	 General Information on the construction of motor vehicles and trailers Tasks, types, characteristics and selection of specific equipment of powertrains. Types, characteristics and selection of mechanical power transmissions Calculation of mechanical power transmissions. Calculation of gears, shafts and letter tasks, types, characteristics and selection of locomotor systems Calculation of planetary gears. Calculation of main and differential gears. Budget bridges Tasks, types, characteristics and selection of control and support systems I colloquium Support system calculation. Calculation of the wheel guidance mechanism. Mana system budget Tasks, types, characteristics and selection of braking systems Calculation of friction systems. Transmission and command mechanism calcular Calculation of articulated gears (couplings and shafts). Calculation of the front a (dependent support) Tasks, types, characteristics and selection of special superstructures on vehicles Basic approaches to the calculation of load-bearing structures, loads Calculation of load-bearing structures of passenger vehicles and buses. Calculation 						is. Tasks, id bearings get of drive anagement ulation. ht axle cles ilation of				
				Text	book (s)						
Author	/s		Name	of publica	ition, p	ublisher	Yea	r	Pag	es (from-to)	
				Addition	al readi	ngs					
Author	/s		Nam	e of nubli	cation	editor	Yea	r	Pag	es (from-to)	
	, ,						1.50		1 45		
Evaluation criter	ia		A	ssesment	methoc	ls		Poi	nts	Percentage	

	Pre-exam obligations					
	attendance at lectures and exercises	10	10%			
	seminar papers	20	20%			
	I colloquium	10	10%			
II colloquium 10 1						
	Final exam					
	final exam (oral / written)	50	50%			
	IN TOTAL	100	100%			
Web sources						
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering			

			UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering						Softmaine agent		
YNC				2	Study prog	ram: T	raffic				
10 15 - L SV 2 - JO					Profile: Mo	otor Vel	hicles	dy			AOEOJ
Course title				TCycle	VEHIC	E OPER	ATION AND N	IAINTENAN	CE		
Department		De	partme	nt of Moto	or Vehicles	, Opera	ition, Maintena	ance and Di	agno	stics of	Vehicles
	Code			Course status Seme			Semes	ster		ECTS	credits
CAΦ11SM	0710347	5,0220)								
Professor/s	Р	rof. dr	Mesud	Ajanović							
Associate/s										Churde	
	Weekly	hours	1	Individual student ho		dent hours (pe	nt hours (per semester)		er) coefficient S		
L	TE						TE	LE			S _o
	2	daad (hours	0	<u> </u>		Z	U workload (h	r		1,5
Total teac	2*15 + 2	(10au (1 15 +	nours, 0*15 =	per serries = W/	iter)		2*15*1 5	+ 2*15*1 5	+ 0*	, per se 15*1 5	= T
	30+	30+ 0	= 60 h	- •••			2 13 1,5	45 + 45 + 0	= 90	13 1,3 h	- 1
				Tota	l workload	: 60 + 9	0 = 150 h				
	B	y mast	ering t	his course	the stude	nt will b	e able to:				
Lourse aims an		sing kr	nown m	nethods of	^f monitorir	ng the o	peration and r	naintenance	e of v	vehicles,	, with the
	e	stablis	hment	of failure	diagnostics	5					
Prerequisites	D	Does not have									
Teaching meth	ods Le	ectures	s, audit	ory exerci	ses, semin	ar pape	er				
	1	Defin	ing the	concept c	of mainten	ance. P	rocess approad	ch to mainte	enan	ce	
	2	 Basic ways of realization of maintenance Determining the condition of the vehicle - diagnostics 									
	3	4. Set a maintenance goal									
	4	4. Set a maintenance goal 5. Vehicle performance									
	6	6. Measurement of performance characteristics									
	7	7. I colloguium									
Course content	t 8	8. Conditions for realization of maintenance									
	9	9. Plant maintenance support functions									
	1	10. Requirements in relation to the protection of humans and the environment									
	1	11. Quality of maintenance									
		2. Iden	tification in a ro	on of user	s and spec	ification	n of their requi	rements			
		1 Imni	roving	maintenar	is ioi supp	ilers an		212			
	1	5. II co	lloauiu	m							
			•		Text	oook (s)					
Autho	or/s			Name	of publica	tion, p	ublisher	Yea	r	Page	es (from-to)
Ranko Bo	zickovic			Operation	and main	tenance	e of vehicles	201	1		1-317
					Addition	al read	ings				
Autho	or/s			Nam	e of publi	cation,	editor	Yea	r	Page	es (from-to)
Ranko Bozickovic			Colle	ction of ta	sks from ti syste	ne relia ems	bility of technic	200	9		1-135
				Α	ssesment	method	ds	·	Poi	nts	Percentage
			m oblig	ations							
Evaluation crite	eria P	e-exd		for o	vamnle at	tendan	ce at lectures	/ exercises	10		10%
		fr	or exam	iole. Lami	nositively a	SSesser	d. paper / proje	ect / essav	20		20%
			. chuil		for e	xamnle	case study - g	roup work	/		/
					101 0	pic	Sase study B		/		1

	for example. test / colloquium	70	70%					
	for example. laboratory work / lab. exercises	/	/					
	for example. practical work	/	/					
Final exam								
	for example. final exam (oral / written)	70	70%					
	IN TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic						Softwalling over 1		
				Profile: Mo	otor Vel	hicles				AOEOJ
Courses Aitles			l cycle			I year of stu	idy			
Course title		Den	artment of Mot	engin or Vehicles	DIAG	NUSIS AND M	ance and Di	agno	stics of	Vehicles
Department		Грер			, opera				51105 01	venicies
C	Code		Cou	urse status	5	Seme	ster		ECTS	5 credits
CAΦ11SM0	7117375	,0220								
Professor/s	Pro	of. dr E	Božidar Krstić							
Associate/s									Stude	ont workload
	Weekly ho			Individ	ual stu	dent hours (pe	er semester)	COE	efficient So
L	TE		LE	L TE		TE	LE			So
2	2		0	2		2	0			1,5
Total teach	ner workl	oad (h	ours, per semes	ster)		Total student	workload (h	nours	, per se	mester) – T
	30+ 3 2 + 2 · 2	12 + C 12 + C	15 = w			2.12.12	45 + 45 + 0	= 90	15°1,5 h	= 1
	501 5	-0100	Tota	l workload	: 60 + 9	0 = 150 h	+	- 50		
	By	maste	ering this course	the stude	nt will b	e able to:				
Course aims and	d Pra	actical	application of s	tatistical m	ethods	in monitoring	and predict	ting t	he occu	irrence of
learning outcon	nes en	gine fa	ilures. Introduc	tion to the	basics	of "on-board"	diagnostics	on m	odern	motor
	vel	vehicles								
Prerequisites	Do	es not	have							
Teaching metho	ods Leo	ctures,	, auditory exerci	ses, semin	ar pape	er				
Course content	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 14. 15. 14. 15. 15. 14. 15. 14. 15. 10. 15. 10. 10. 10. 10. 10. 10. 10. 10	Introd Quality Engine Engine Fuel co Wear o Colloo Metho Wear o Fund Metho On-Bo On-Bo On-Bo Overl	uctory considera y of engine oper e reliability in op e operating mod onsumption in e of engines and e quium ods of determini of the most imp amentals of the nods and means oard diagnostics uture of OBD dia haul and overha oquium	ations ration, ope eration es ngine oper engine part ng wear ortant part theory of of determ s (OBD) of agnostics ul of engin	rationa ration s - gene ts and a technic ining di vehicle es. Eng	l safety of the eral characteris ssemblies of t al diagnostics agnostic parar engines ine overhaul c	engine stics he engine neters osts			
Autho	or/s		Name	of publica	ition, p	ublisher	Yea	r	Pag	es (from-to)
				Addition	al read	ings				
Autho	or/s		Nam	ne of publi	cation,	editor	Yea	r	Pag	es (from-to)
			A	ssesment	method	ls		Poi	nts	Percentage
Evaluation crite	Pre	e-exan	n obligations					1		
evaluation crite		-	for e	example. at	tendan	ce at lectures	/ exercises	10		10%
		for	r example. I am	positively a	assesse	d. paper / proj	ect / essay	20		20%
				for e	xample.	. case study - g	group work	/		/

	for example. test / colloquium	70	70%					
	for example. laboratory work / lab. exercises	/	/					
	for example. practical work	/	/					
Final exam								
	for example. final exam (oral / written)	70	70%					
	IN TOTAL	100	100%					
Web sources								
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering					

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles						A060J		
Course title			l cycle			l year of stu	idy E MAINTENI		ENAC	
Department		Den	DESIGN A	or Vehicles	Opera	tion Mainten	ance and Dia	agnostics of	f Vehicles	
Co	ode	Dep	Cou	urse status		Seme	ster	ECT	'S credits	
САФ115М07	117486,	0320								
Professor/s	Pro	f. dr E	Božidar Krstić							
Associate/s										
v	Veekly h	ours		Individual st			er semester)	co	efficient So	
L	TE		LE	L		TE	LE		So	
3	2	() .	0	3		2	0		1,4	
1 otal teache 3'	er workic *15 + 2* 45+ 3	oad (n 15 + (0+ 0=	iours, per semes)*15 = W : 75 h	ter)		3*15*1,4	workioad (n + 2*15*1,4 63 + 42 + 0 =	ours, per s + 0*15*1,4 : 105 h	emester) 1 = T	
	10 0		Total	workload	75 + 1	05 = 180 h		200		
Course aims and learning outcom	By i Thr so-c es to a Sind prir	By mastering this course the student will be able to: Through this study to acquire the necessary knowledge for the design and organization of t so-called. open systems, small and authorized vehicle maintenance services. They are easie to adapt to changes in technique and technology and easier to integrate into larger system Since today vehicles are built on the principles of modular construction, then the same principles must be respected in vehicle maintenance								
Prerequisites	Doe	es not	t have							
Teaching method	ds Lec	tures	, auditory exerci	ses, semin	ar pape	r				
Course content	1. li 2. M 3. C 4. M 5. B 6. C 7. l 8. L 9. N 10. 11. 12. 13. 14. Ber 15.	 Introductory considerations Maintenance and logistics engineering Concept of maintenance Maintenance organization Basics of maintenance system design. Vehicle maintenance facilities Construction of facilities for vehicle maintenance. Projected task I colloquium Logistical support for maintenance Number of maintenance vehicles. Estimation of maintenance system capacity Quality in use Technological process. Types of technological process Workplace (r / m) for maintenance of vehicles and assemblies Specialized maintenance plants General guidelines for the design of service workshops - the case of Mercedes / Daimler Benz, Volkswagen, Scania. After sales service activities - After sales 								
				Text	pook (s)				16	
Author	/s		Name	of publica	tion, p	ublisher	Year	r Pa	ges (from-to)	
				۸ ماماند: م	al read	inge				
Author	10		Nor	Addition	airead	editor	Vac	r Der	tos (from to)	
Author	/ 3		ivam		cation,	cultur	Teal		555 (110111-10)	
Evaluation criter	ia Pre	-exan	A: n obligations	ssesment	methoo	ls		Points	Percentage	

	for example. attendance at lectures and exercises	10	10%
	seminar papers	20	20%
	I colloquium	10	10%
	II colloquium	10	10%
	final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			F	UNIV aculty of	ERSITY OF Transport	EAST S	ARAJEVO ffic Engineerin	g	Statuling and			
					Study prog	ram: Ti	raffic			Ĩ		
10 15 15 15 10 15	II.				Profile: Mic	otor Ver	l vear of stu	dy			AOEOJ	
Course title	-			ENVIR		AL PRO		WASTE MA	NAGI	EMENT		
Department		Dep	partme	nt of Tran	sport Engi	neering	- Faculty of Tra	ansportatio	n Dol	рој		
	Code			Course status			Semes	ster		ECTS	5 credits	
САФ115М(07117585	,0220)									
Professor/s	Pr	of. dr	Milan	Milotić								
Associate/s										Stude	ant workload	
	Weekly hours			Individual stud			dent hours (per semester)) coefficient So		
	TE						TE	LE			S ₀	
Z Total toac	2	ood (hours		tor)		Z Total students	U workload (h		norso	1,5 mostor)	
Total teach	2*15 + 2	*15 +	0*15 :	per serries = W	lei)		2*15*1.5	+ 2*15*1.5	+ 0*	15*1.5	= T	
	30+	30+0	= 75 h				,	45 + 45 + 0	= 90 ł			
				Tota	l workload	: 60 + 9	0 = 150 h					
Course aims an	By	mast	ering t	his course	the stude	nt will b	e able to:					
learning outcom	mes Ha	s insi	ght into	o the acqu	isition of k	nowled	ge about techi	nological pr	ocess	es in e	nvironmental	
	protection, and knowledge about the impact of SUS engines on the environment							t				
Prerequisites	Do	Does not have										
Teaching meth	ods Le	Lectures, auditory exercises, seminar paper										
		 Energy and climate The role of stratospheric ozone ("Champagne ozone cycle") Impact of energy, industry and transport on the environment 										
	5.	5. Impact of SUS engines on the environment										
	6.	6. Toxic exhaust emissions from otto and diesel engines										
Course content	7.	7. I colloquium										
Course content	. o.	8. Standards (regulations) in the field of engine exhaust emissions										
	10	9. Exhaust gas treatment of internal compustion engines										
	11	11. SUS engine noise										
	12	12. Wastewater and management principles										
	13	. Solic	d waste	e, categoria	zation, qua	antities,	composition a	ind manage	ment	: princi	ples	
	14	. Haza	ardous	waste, de	finition, cla	assificat	ion and manag	gement prin	ciple	s. Wast	e disposal.	
	15	. II CO	lioquiu	m	Toytk	nook (c)						
Autho	or/s			Name	of publica	tion. p	ublisher	Yea	r	Pag	es (from-to)	
			Ene	ergy Its Use	e and the E	Inviron	nent, Harcour	t aaa		0	4.050	
R.A. HINFICHS, I	vi. Kieind	acn			College Pu	ublisher	S	200	2		1-258	
					Addition	al readi	ngs					
Author/s				Nam	e of publi	cation,	editor	Yea	r	Pag	es (from-to)	
R.J. Heir	R.J. Heinsohn Sources and Control of Air Pollution,					on, Prentice H	all 199	9		1-238		
				A	ssesment	method	ls		Poi	nts	Percentage	
	Pr	e-exai	m obli¤	ations								
Evaluation crite	eria	_ enu		for exa	nple. atter	ndance	at lectures and	d exercises	10		10%	
							semir	nar papers	20		20%	
							١c	olloquium	10		10%	

	II colloquium	10	10%
	Final exam		
	for example. final exam (oral / written)	50	50%
	IN TOTAL	100	100%
Web sources			
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and T	raffic engine	ering

			Fa	UNIV	ERSITY OF Transport	EAST and Tra	SARAJEVO affic Engineerin	Ig		STUNING ON THE	
	Service Contraction			-	Study prog	ram: 1	Traffic	-			
Level of the second sec				l cvcle	Profile: Mo	otor Ve	l vear of stu	ıdv		LOZOY	
Course title				. eyele	ORGA	NIZAT	ION OF TRAFFIC	C COMPANIE	S		
Department		Dep	artment	of Tran	sport Engi	neerin	g - Faculty of Tr	ansportatio	n Do	oboj	
	Code			Соц	urse status	5	Seme	ster		ECTS credits	
САФ115МС	7104585	,0220	20								
Professor/s	Pro	of. dr I	Perica G	ojkovic							
Associate/s										Student workload	
	ours			Individ	lual stu	udent hours (pe	er semester)		coefficient So		
L	TE		L	E	L		TE	LE		So	
2	2		C)	2*15*1,5	5=45	2*15*1,5=4 5	0*15*1,5=	0	1,5	
Total teach	ner workle 2*15 + 2*	oad (h 15 + (nours, pe D*15 = 6	er semes 60	ter)		Total student 2*15*1,4	workload (h l+ 2*15*1,4+	ours - 0*1	5, per semester) 15*1,4 =90	
				Tota	l workload	: 60 +	90 = 150 h				
	By	maste	ering this	s course	, students	will be	able to:				
	1.	earn t	the basio	concep	ts of orgar	nizatio	n, as well as typ	bes and orga	nizat	tional models of	
.	ent	erprises;									
Course aims an	a 2.1	velopment policy and development factors;									
	3. i	ndepe	ndependently organize and lead a meeting according to defined rules;								
	4. a	acquir	red know	/ledge in	practice t	o appl	y and establish	their own co	omp	, any as well as to give	
	ins	tructio	ons to o	thers on	how to do	o it;					
Prerequisites	Do	es not	t have								
Teaching metho	ods Leo	tures	, audito	y exerci	ses, semin	ar pap	er				
	1.	The concept and development of the organization									
	2.	2. Types of organizational structure									
	4. (Drgan	izing lar	ge busin	ess system	npany Is					
	5. (Drgan	izationa	l models	of transpo	ort con	npanies				
	6. 6	Busine	ess and o	levelopr	nent polic	y					
	7.0	Chara	cteristic	busines	s factors (I	colloq	uium)				
Course content	8.1	Sasic i Drgan	methods	and tec	chniques fo	or optil	mization				
	9.0	Orga	nization	of busir	less functio	ons					
	11.	Busir	ness info	rmation	systems						
	12.	Orga	nization	control.	Organizin	g a me	eting				
	13.	Orga	nization	and ma	nagement	ofinve	estments				
	14.	Orga	nization	design.	Organizati	onal tr	ransformation of	of the compa	iny		
	15.	II COI	ioquium		Text	ook (s)				
Autho	or/s			Name	of publica	tion.	oublisher	Year	r	Pages (from-to)	
.Veskovic, B.V,	Bojovic, J	.N.,	Organ	ization o	of transpor	t com	panies, Faculty	of acc	7		
Knezevic	:, Lj.N.		Tran	sport ar	d Traffic E	nginee	ering, Belgrade.	2007	/		
					Addition	al read	dings				
Autho	or/s			Nam	e of publi	cation	, editor	Year	r	Pages (from-to)	

	Assesment methods	Points	Percentage						
	Pre-exam obligations								
	attendance at lectures and exercises	10	10%						
	I colloquium	40	40%						
Evaluation criteria	II colloquium	20	20%						
	passed colloquia (theory)	20	20%						
	Final exam								
	Oral	10	100%						
	IN TOTAL	100	100%						
Web sources									
Applicable from	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Trans	raffic engine	ering						

			UNIV Faculty of	TERSITY OF EAST S Transport and Tra Study program: Tr Profile: Motor Vel	ARAJEVO ffic Engineerir raffic nicles	Ig	Solution and a second			
ALS 45 TO LO	Y		I cycle		l year of stu	ıdy		QOEO		
Course title			TE	CHNICAL INSPECT	ION AND APP	ROVAL OF V	EHICLES			
Department		Departm	ent of Mot	or Vehicles, Opera	tion, Mainten	ance and Dia	agnostics of	f Vehicles		
	Code		Course status Semester			ster	ECT	S credits		
CAΦ11SM	07217785	,0220	20							
Professor/s	Pro	of. dr Zoran	Ristikić							
Associate/s										
	Weekly h	ours		Individual stud	dent hours (p	er semester)	Stud co	ent workload efficient S _o		
L	TE		LE	L	TE	LE		So		
Total workload:										
Course aims an learning outcou	nd mes	d nes								
Prerequisites										
Teaching meth	ods									
Course content	t									
				Textbook (s)						
Autho	or/s	Name of publication, publisher				Year	Pages (from-to)			
				Additional readi	nge					
Autho	nr/s		Nam	e of publication	editor	Year	· Pag	res (from-to)		
	5175									
			A	ssesment method	s		Points	Percentage		
	_									
	Pre	e-exam obl	gations							
			for exa	mple. attendance	at lectures an	d exercises				
Evaluation crite	eria				sem					
						colloquium				
	Fin	ai exam		for an end of the						
	181			for example. fi	nai exam (ora	i / written)				
	IN	IUIAL								
web sources										
Applicable from	n 16.	06.2021 - 1	175 Session	of the Councile, F	aculty of Trar	sport and Tr	affic engine	eering		

-18. -18. 	UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles							DO STATE OF STATE			
1375 1-550 30 M)	I cycle IV year of study						<	A0601		
Full subject na	me		TRAFFIC SAFETY								
Desk		Department of Transport Engineering - Faculty of Transportation Doboj									
c	Code		Cou	ourse status Semester			ster		ECTS credits		
CAΦ11SM0	7204785	,0220		elective		VII			5,0		
Professor/s	Pro	f. dr Bojan	n Marić								
Associate/s											
Hours / 1	teaching	load (wee	kly)	Individ	lual st	udent workloa hours)	d (semester	'	Student workload coefficient So		
П	AB		ЛВ	П		AB	ЛВ		So		
2	2		0	2*15*1,5	5=45	2*15*1,5=45	0*15*1,5=	=0	1,5		
total te	aching lo	ad (in hou	rs, semeste	r)		total studen	t workload (IN ho	ours, semester)		
	Total w	13 ± 0.13	the course	(teaching -	+ stud	$2^{-15^{-1},5}$	$p + 2^{-15^{-1}}$		13°1,5-90 nester		
			60 +	90 = 150	nours	per semester	pt nours pe	.1 301	liester		
	By	mastering	this course	the studer	nt will	be able to:					
Learning outcomes	1. u 2. e 3. f	 understands the state and tendencies in traffic safety in the region and in the world explain the concept and elements of the traffic safety management process Explain traffic safety factors 									
	4. r 5. u	i. measure traffic safety performance indicators 5. understands the investigation and analysis of traffic accidents									
Conditionality	No										
Teaching	NO	ne									
methods	lec	tures ex ch	air, worksh	ops, discus	ssion,	focus groups, ir	ndividual and	d gro	up work		
Course content by weeks	1. Introduction, subject and method of study. Traffic safety methods2. Scientific discipline based on traffic safety3. State and tendencies in traffic safety4. Traffic safety factors5. Protection system and responsibilities in traffic safety6. Regulations in traffic safety7. Measurement in traffic safety8. Traffic safety indicators9. Traffic safety management										
10. Traffic safety measures 11. Traffic accidents, Investigation of traffic accidents 12. Traffic-technical analysis of traffic accidents 13. Modern procedures for improving road safety 14. Speed control 15. Databases of importance for traffic safety Required literature									Pages(from to)		
Autho	or/s		Name	e of public	ation,	publisher	Yea	r	Pages(from-to)		

Lipovac Krsto, Jovanovic Dragan and Vujanic Milan		Basics of traffic safety,, Criminal Police Academy, Belgrade	2014		1-388				
Lipovac Krst	to	Traffic safety, High School of Internal Affairs, Banja Luka	7	166-174					
		Additional literature							
Author/s		Name of publication, publisher	Yea	r Pag	es (from-to)				
		Law on Fundamentals of Road Traffic Safety in BiH official messenger BiH, No. 6/06, 75/06, 44/07 and 84/09.							
		Law on Road Traffic Safety, official messenger RS no. 41/09, 53/10, 101/11, 32/13 -US, 55/14.							
		Type of student performance evaluation		Points	Percentage				
	Pre-exam obligations								
		activity during classes -	tests	10	10%				
Obligations,		colloqu	15	15%					
torms of		positively evaluated seminar	20	20%					
assessment and	Final exam								
assessment	exam	Writter	1	35	35%				
	oral	Final exa	m-	20	20				
	IN TOTAL	· · · · · · · · · · · · · · · · · · ·		100	100 %				
Validation date	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering								

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles							AOBOJ			
32500 40		I cycle			IV year of st	udy						
Full subject na	ame	Demonstra	COMPRESSORS, PUMPS AND FANS									
Desk		Departm	ent of Moto	or venicies	, Ope	Tation, Mainten	lance an	id Diagn	ostics of vehicles			
	Code		Соц	urse status		Semester			ECTS credits			
CAΦ11SM	07236685	5,0220		elective		V			5,0			
Professor/s	Pro	of. dr Perica	i Gojković									
Associate/s				المراجع المراجع			-1 <i>(</i>		Church and a state of the state			
Hours /	teaching	load (wee	kly)	Individ	lual st	udent workloa hours)	d (seme	ester	Student workload coefficient So			
П	AB		ЛВ	П		AB	Л	1B	So			
2	2		0	2		2		0	1,5			
total to 2	eaching lo 2 * 15 + 2 30+3	vad (in hour * 15 + 0 * 1 30+ 0 = 60	rs, semeste 15 = W h	r)		total studen 2 * 15 * 1.5	t worklo + 2 * 15 45 + 45	oad (in h 5 * 1.5 + 5 + 0 = 90	ours, semester) 0 * 15 * 1.5 = T 0 h			
	Total w	orkload of	the course	+ teaching) = 90 + 120	⊦ stud = 210	ent): W + T = Uo h = Uopt	opt hou	rs per se	emester			
Learning outcomesBy mastering this course the student acquires knowledge and acquaintance with Reciprocating compressors used as an important aggregate machine, as well as int the types and characteristics of pumps and fans							nce with well as introduction to					
Conditionality	Conditionality None											
Teaching methods	Leo	ctures, audi	tory exerci	ses, semina	ar pap	per						
Image: Construction of the intervence of the interven												
A. 11			N1	Require	d lite	rature		Vers	Deges (from to)			
R.A Hinrichs	M. Kleint	bach	Energy	ts Use and	the F	nvironment		2002	1-310			

Additional literature									
Author/s		Name of publication, publisher	r	Page	es (from-to)				
R.J. Heinsohn		Sources and Control of Air Pollution, Prentice Hall		1-285					
		Type of student performance evaluation		Points		Percentage			
Obligations	Pre-exam	obligations							
Obligations,		attendance at lectures and exe	10		10%				
forms of		seminar p	20		20%				
knowledge		I colloc	10		10%				
assessment and		II colloc	10		10%				
assessment	Final exa	m							
		Final exam (oral/ wi	50		50%				
	IN TOTAL			10	0	100 %			
Validation date	16.06.20	16.06.2021 - 175 Session of the Councile, Faculty of Transport and Traffic engineering							

		UNIVERSITY OF EAST SARAJEVO Faculty of Transport and Traffic Engineering Study program: Traffic Profile: Motor Vehicles						South all of a state		
		I cycle IV year of study					tudy	L030A		
Full subject nam	ne		HUMAN	RESOURC	ĊES, ΚΙ	NOWLEDGE AN	D PROJECT I	MANAGEMENT		
Desk		Departme	ent of Marl	keting and	Mana	gement, Facult	y of Econom	nics in Brcko		
с	ode		Course status		5	Semester		ECTS credits		
САФ115М0	7217885	,0220	r	equired		VI	11	5,0		
Professor/s	Pro	f. dr Živko I	Erceg							
Associate/s										
Hours / t	eaching	load (week	ly)	Individ	dual st	udent workloa hours)	id (semester	r Student workload coefficient So		
П	AB		ЛВ	П		AB	ЛВ	So		
2	2		0	2		2	0	1,5		
total tea	iching lo	ad (in hour	s, semeste	r)		total studer	it workload ((in hours, semester)		
2	2*15 + 2*	15 + 0*15	= W			2*15*1,	5 + 2*15*1,5	5 + 0*15*1,5 = T		
	30+ : Total w	30+ 0= 75 n	ha courco	(tooching	, ctud	ant $\lambda \lambda \lambda = 1$	$\frac{45+45+0}{2000}$	r somostor		
	TOLAT WO		ne course	60 + 90	+ stuu = 150	$h = 1 \int_{ant}^{b} dt = 0$	opt nours pe			
Learning outcomes	It n aim plai crea pro	It manages the human resources and key functions and responsibilities of each manager. The aim is to acquaint students with tasks and activities in this area, strategic management, planning the needs and structure of employees, education and development of employees, creating an appropriate climate in the workplace and environment, and knowledge and projects								
Conditionality	Noi	ne								
reaching	Lec	tures, audi	tory exerci	ses, semin	ar pap	er				
methods 1. Tasks and activities in HRM. Management environment 2. Resistance to change and change management-change management system 3. Strategic management and managers. Strategic human resources planning in the compart 5. Functions of managers. Types of leadership. Leadership styles. Groups and grout management. Characteristics and size of the group 6. Organizational culture. Contemporary trends in organizational culture 7. I colloquium 8. Career development and education in the company. Strategic plan of continuing education 9. Creativity and creative techniques. Creativity and enterprise. Techniques for developing the creativity of employees and managers. Techniques for evaluating performance at work 10. Knowledge - empirical basics, understanding the concept of Knowledge management 11. Area of application of UZ Reference model of UZ. Business and process models UZ 12. Knowledge collection, diagnosis and assessment. UZ manufacturing companies. UZ research and development 13. Modeling knowledge - languages and tools. Tool selection criteria. Knowledge structur Search techniques. Intellectual capital: measuring knowledge: ways of measuring. 14 Project management, objectives, efficiency, monitoring and analysis, measuremer improvement								eent system management es planning in the company styles. Groups and group lture n of continuing education chniques for developing the erformance at work ^E Knowledge management: process models UZ acturing companies. UZ in teria. Knowledge structure. of measuring. d analysis, measurement,		

Required literature									
Author/s		Name of publication, publisher	Year	Year		Pages(from-to)			
Van Bahtijarević -	Šiber, F.	Human Resources Management, Golden marketing, Zagreb	1999		1-228				
		Additional literature							
Author/s		Name of publication, publisher	Year	r Page		es (from-to)			
Marušić, S	5	Human Resources Management, Adeco, Zagreb,	2001		1-280				
		Type of student performance evaluation		Points		Percentage			
Ohlisstians	Pre-exam obligations								
Obligations,		attendance at lectures and exe	10		10%				
torms of		seminar p	20		20%				
knowledge		I collo	10		10%				
assessment and		II colloc	10		10%				
assessment	Final exam								
		Final exam (oral/ w	50		50%				
	IN TOTAL			10	0	100 %			
Validation date	16.06.20	21 - 175 Session of the Councile, Faculty of Transpor	t and Tr	affi	c engine	ering			