Study program: TRANSPORT, ORGANIZATION AND LOGISTICS (3 years)

I Semester-First year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Mathematics I	8	3+2+2	216
Mechanical materials	8	3+2+2	216
Computer Science	6	2+2+1	156
Elective subject from the faculty 1	4	2+1+1	120
Elective subject from the faculty 2	4	2+1+1	120
Total:	30	12+8+7	828

I Semester-First year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Basics of Physics	4	2+1+1	120
Physics II	4	2+1+1	120
Electrotechnics and elektronics	4	2+1+1	120
Casting technology	4	2+1+1	120

II Semester-First year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Mathematics II	8	3+2+2	216
Engineering graphics	6	2+2+1	156
Technical Mechanics I (statics)	6	2+2+1	156
Elective subject from the faculty 3	4	2+1+1	120
Elective subject from the University 1	6	0+0+1	156
Sports and Recreation	0	0+0+2	
Total:	30	9+7+11	804

II Semester-First year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
The modern mechanical materials	4	2+1+1	120
Engineering logistics	4	2+1+1	120

IIISemester-Second year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Thermodynamics	8	3+2+2	216
Strength of materials	8	3+2+2	216
Technical Mechanics II (kinematics, dynamics, oscillations)	6	2+2+1	156
Elective subject from the faculty 4	4	2+1+1	120
Elective subject from the faculty 5	4	2+1+1	120
Total:	30	12+8+7	828

IIISemester-Second year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Corrosion and corrosion protection	4	2+1+1	120
Probability and statistics	4	2+1+1	120
Ergonomics	4	2+1+1	120
Industrial Management	4	2+1+1	120

IVSemester-Second year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Machine elements	8	3+2+2	216
Fluid Mechanics	6	2+2+1	156
Numerical methods	6	2+2+1	156
Elective subject from the faculty 6	4	2+1+1	120
Elective subject from the University	6	0+0+4	156
Total:	30	9+7+9	804

IVSemester-Second year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Measurement and measuring instruments	4	2+1+1	120
Heat transfer	4	2+1+1	120

V Semester- Third year			
Mandatory subjects			
SUBJEKTS	ECTS	Hours	Total
Management Information Systems	8	3+2+2	216
Internal combustion engines	8	3+2+2	216
Human resource management	6	2+2+1	156
Elective subject from the faculty 7	4	2+1+1	120
Elective subject from the faculty 8	4	2+1+1	120
Total:	30	11+8+7	828

V Semester- Third year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Plants and fuel	4	2+1+1	120
Basics of thermo-technical machines	4	2+1+1	120
Engineering economics	4	2+1+1	120
City public transport	4	2+1+1	120

VI Semester- Third year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Theory of movement of motor vehicles	8	3+2+2	216
Operations Research	6	2+2+1	156
Elective subject from the faculty 9	4	2+1+1	120
Elective subject from the University 3	6	2+2+1	156
Final exam	6	0+0+6	144
Total:	30	9+7+11	792

VI Semester- Third year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Project Management	4	2+1+1	120
Dynamics of motor vehicles	4	2+1+1	120

FACULTY OF MECHANICAL ENGINEERING – STADY PROGRAM: TRANSPORT, ORGANIZATION AND LOGISTICS

Ann	ex No.3	TRANSPORT, OR	UANIZ		LOC		3	
AIII	lex INU.S	Program of the Cou	rse - fir	st cycle studies	2			
		110gram of the Cou	15C - 111	st cycle studies	,			
1.	Title of t	he Course	Μ	athematics I				
2.	Code			T100112				
3.	Study Pr	ogram		oduction Engine	eering	g /Trans	port. Orga	nization
	Study 11	- Si uni		d Logistics	conn	5 / 1 / 1 / 1	poin, 015u	meunom
4.	Organiz	er of the study progra		niversity Goce I	Delce	v - Stin		
	0	institute, Faculty,		culty of Compu		-	/inica	
	departm			epartment of Ma				s
5.		rst, second and third		st cycle				5
	cycle)							
6.	j /	ic year / semester	20	12-2013/first	7.	Numb	er of	8
			_0			credits		0
8.	Professo	r (s)	Pr	of. Jordan Ziva	novil			
				of. Martin Luka				
9.	Require	ments for enrollment	no			,		
	the Cour							
10.		s of the curriculum (c	ompete	ncies): Ut	ograd	ing high	school	
	-	tics knowledge and int	-	, 1	<u> </u>	0 0		
11.		of the course program		C				
		ic definition of the real		rs. Limited sets.	Inter	rvals, en	vironment	s, open
		ed sets. Absolute value						· •
	Operation	ns with matrices. Some	special	matrices. Deter	rmina	ants. Mii	nor and alg	gebraic
	-	ents. Calculating the ir	-					-
	Vectors.	Collection of vectors. I	Multiply	ing a vector by	a nu	mber. Co	oordinate	system.
	Scalar, ve	ector and mixed produc	et. Equa	tions of the line	and	plane. R	elationshi	p
	between	lines and planes. Real s	sequenc	e. Convergence	and	the limit	. Limited	and
		ous sequences. Operati						ences
		mited grow in absolute			-	1		
		ences. Kauchy's sequer						
		- basic concepts. Exam						
		ry functions. Limits an		•				
		ulation. Basic theorem				-		-
		mes. Second derivative						
10		ion of graphs. Higher-o	order de	rivatives and di	ffere	ntials. I	aylor's for	mula.
12.		g methods:		1 · 1			1	
		laboratory exercises, r	numeric	al exercises, e-l	earn	ng, semi	nar work,	
	teamwor	k, consultation						
13.	Total ava	ailable time		216 hours				
14.	Distribu	tion of available time		3+2+2 / per	week	K		
15.	Forms of	f teaching / learning	15.1.	lectures / theo	oretic	cal -	3 hours	
	activities			contact teach	ing,			
				e-teaching				
			15.2.	theoretical an	d pr	actical	2 hours	

				e-exams, preparation independent seminar work		
16.	Other	forms of activities	16.1.	Project tasks		1 hours
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		hours
17.	Metho	od of assessment	1			1
	17.1.	Tests / oral exams			70]	points
	17.2.	Seminars (paper / proj and/or oral)	ject - p	resentation: written	10 p	points
	17.3.	Activity and participat	ion		20 p	oints
18.	Assess	sment Criteria (points /	ι	up 50 points	5(fiv	ve) (F)
	score))	5	51 to 60 points	6(six	x) (E)
			(61 to 70 points	7 (se	even) (D)
			7	71 to 80 points	8 (ei	ght) (C)
			8	81 to 90 points	9 (ni	ne) (B)
				91 to 100 points		en) (A)
19.	-	ture requirement and		50% success from all pr		
	passir	ng the final exam	-	points from two mid-ter		
			-	paper, attendance of lect	tures a	and exercises
20.	Langu	age of teaching / study	1	Macedonian		
21.	Metho of tea	od of monitoring the qua ching	ality S	Self-evaluation		

	Requ	ired literature			
	No.	Author	Title	Publisher	Year
22.1.	1.	Glin Dzejms	Matematika na moderen inzhenering	Translation of the Government of R.Macedonia	2009
	2.	Zivanovik and assistants	Predavanja I vezbi po Matematika 1	e-ucenje	2010
	3.	B.Trpenovski, N.Celakoski, G.Cupona	Visa matematika I-IV	Prosvetno delo, Skopje	1995
	Addi	tional literature	·	·	
	No.	Author	Title	Publisher	Year
22.2.	1.	Milan Merkle	Matematicka analiza	Racunarski Fakultet - Beograd	2007
	2.	Ivan Slapnicar http://www.fesb.hr/mat1	Matematika 1	Fakultet, Elektr.strojars tva I	2002

			brodogradnje, Split	
	3.			

1. 2.		r rogram or the Course	- first cycle studies	5		
	Title of t	he Course	Mechanical mate	rials	6	
	Code		2MF100112			
3.	Study Pr	ogram	Production engine and Logistics	ering	g/Transport Orga	nization
4.	0	er of the study program nstitute, Faculty, ent)	University Goce I Faculty of Compu		-	
5.	Cycle (fin cycle)	rst, second and third	First cycle			
6.	Academi	c year / semester	First/I semester	7.	Number of credits	8
8.	Professo		Slavco Cvetkov, H	PhD,	Associate Profes	sor
9.	Requirer the Cour	nents for enrollment	No			
11.		of the course program: roduction to the materials				
			(-1-			
		vision and structure of me	tais			
		loys and state diagram	20			
		eels: Obtaining and labelling rbon steels: structural and	-			
		loy steel: structural and to				
		eat treatment of steels				
		rface hardening of steels				
		st iron: gray iron and mall	eable iron			
		on ferrous metals and their				
		ramics, glass and composi	•			
		lymers and non metals (we)		

12.	Learning methods: -Teaching, exercises, projects as	ssionm	ent		
	reaching, exercises, projects as	5151111			
13.	Total available time		216		
14.	Distribution of available time		3+2+2 / per we		
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	3
	activities		contact teaching,		
		150	e-teaching	4 1	2
		15.2.	1	tical	2
			exercises,	n of	
			e-exams, preparation independent semina		
			work	L	
16.	Other forms of activities	16.1.	Project tasks		1 hours
		16.2.	Individual tasks		1 hours
		16.3.	Home learning		/ hours
17.	Method of assessment				
	17.1. Tests / oral exams			70	points
	17.2. Seminars (paper / proj	ject - p	resentation: written	10 p	ooints
-	and/or oral)				
	17.3. Activity and participati	ion		20 p	oints
18.	Assessment Criteria (points /	l	up 50 points	5(fiv	re) (F)
	score)		51 to 60 points		x) (E)
			61 to 70 points	-	even) (D)
			71 to 80 points		ght) (C)
			81 to 90 points	· · ·	ne) (B)
10			91 to 100 points		en) (A)
19.	Signature requirement and		60% success from all pr		
	passing the final exam		pointsfrom two mid-tern paper, attendance of lec		
20.	Language of teaching / study		paper, attendance of lec Macedonian	ules a	and exercises
	3 3 .				
21.	Method of monitoring the qua of teaching		Self-evaluation		

22.	Litera	ture				
		Requ	ired literature			
		No.	Author	Title	Publisher	Year
	22.1.	1.	Angel Tasevski, PhD Vladan Andonovic, MsC	Mechanical materials	UGD - Stip	2011
		2.	Angel Tasevski, PhD Vladan Andonovic, MsC	Mechanical materials estimation	UGD - Stip	2011
		3.				

	Addit	tional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.				
	2.				
	3.				

Ann	ex No.3 Program of the Course - f	ïrst cycle studies			
1.	Title of the Course	Computer Science			
2.	Code	2FI110112			
3.	Study program	Production engineer	ring/	Transport Organiz	ation and
		Logistics	-	1 0	
4.	Organizer of the study program	University Goce De		-	
	(unit or institute, Faculty,	Faculty of Compute	r Sci	ence-Vinica	
	department)				
5.	Cycle (first, second, or third study cycle)	First study cycle			
6.	Academic year / semester	2012-2013 / first	7.	Number of credits	6
8.	Professor (s)	Assi. Professor Zora	an Zo	lravev, PhD	
9.	Requirements for enrollment the Course	No			
	 Contents of the course program: Introduction to computer science Computer hardware: introduction Computer hardware: Peripheral Computer software: applicative Computer software: system soft Computer software: web service Computer networks: LAN, MA 	on, types, architecture ls, Computer Memory, e software, open source tware, programming la res, online document st	of co digi e soft angua torag	omputer systems, tal identification; tware licenses; ages; e and editing syste	ems,
	components, connectivity;Computer networks: Internet, in				
	- Computer security: a concept, a cryptography;	a security risk, malicio	us so	oftware, unauthori	zed access,

	-	Information systems: introdu	uction,	types, ERP, CRM, HR, S	CM;	
	-	Content Management Syster	ns CM	S: DMS, DAMS, WCM,	ECP, E	ERS;
	-	Databases: fundamentals, ty	nes lis	e		
		Dutubuses. Tundumentais, ty	pes, us	C		
10	.	• (1 1 T (T 1			• 1 1	1.
12.		ting methods: Lectures, Labo ts,consultations.	ratory	exercises, e-learning, indi	vidual	and team
13.	1 0	available time		156 hours		
14.		bution of available time		2+2+1		
15.		s of teaching / learning	15.1.			2
	activi			contact teaching, e-		
				teaching		
			15.2.	1	cal	2
				exercises, e-exams,		
				preparation of		
16		e	1 (1	independent seminar	work	
16.	activi	r forms of studying	16.1.	Project tasks		
	activi	ues	16.2.	Individual tasks		1
			16.3.	Home learning		
17.	Methe	od of assessment				
	17.1.	Tests / oral exams			70 pc	oints
	17.2.	Seminars (paper / project	- prese	entation: written	10 pc	oints
	17.0	and/or oral)			20	• .
	17.3.	Activity and participation			20 pc	
18.	Asses	sment Criteria (points / scor		Up 50 points		re) (F)
				51 to 60 points	6 (six	, , ,
				61 to 70 points		ven) (D)
				71 to 80 points		(C)
				81 to 90 points 91 to 100 points		ne) (B) en) (A)
19.	Signa	ture requirement and passin		60% of pre-exam activitie	,	, , ,
17.	0	nal exam		from 2 midterm exams, pr		
				attending of lectures and c		
20.	Lang	age of teaching / study		Macedonian		
21.	Meth	od of monitoring the quality	of	Self-evaluation		
	teachi	a i i				

Ann	nex No.3	Program of the Course ·	- first/second/third cycle studies
1.	Title of t	he Course	Basics of Physics

2.	Code	2F	FP120512					
3.	Study Program	Pr	oduction Engine	erin	g			
4.	Organizer of the study progra		niversity Goce D					
	(unit or institute, Faculty,		culty of mechan	ical	enginee	ering		
	department)							
5.	Cycle (first, second and third cycle)	Fi	rst cycle					
6.	Academic year / semester	1/	1	7.	Numb credits		4	
8.	Professor (s)	Pr	of. Todor Delipe	otrov		•		
<u>9.</u>	Requirements for enrollment		rolled semester	2000	, 1 112			
	Course							
10.	Purposes of the curriculum (co	ompete	ncies):					
	Students are introduced to the ba			of ph	vsics (N	Newton's la	iws,	
	Hooke's law), elasticity and plas			1	5		,	
11.	Content of the course program							
	Test methods in physics, structu	re of m						
	comparative body trajectory and	l separa	tion movements,	, Spe	ecial The	eory of Rel	ativity	
	(time dilation and length contract	,				-		
	Newton's first law, mass, Newton's Second Law, Newton's Third Law. Work, energy							
	and power. Elasticity and structure of bodies: voltage and relative deformation,							
	Hooke's law. Oscillations, alignment fluctuations. Fluid mechanics. Statics gases.							
	Fluid dynamics. Wave motion. Sound and sound sources.							
12.	Learning methods:							
	Lectures, exercises (numerical a	nd prac	tical), papers and	d ho	me leari	ning		
13.	Total available time	nd prac	216 hours			ning		
14.	Total available time Distribution of available time		216 hours 2 + 1 + 1 / p	er w	veek	-		
	Total available time Distribution of available time Forms of teaching / learning	nd prac	216 hours 2 + 1 + 1 / p lectures / theo	er w reti	veek	ning		
14.	Total available time Distribution of available time		216 hours 2 + 1 + 1 / p lectures / theo contact teaching	er w reti	veek	-		
14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching	er w retio ng,	veek	2		
14.	Total available time Distribution of available time Forms of teaching / learning		216 hours 2 + 1 + 1 / p lectures / theoretical and	er w retiong, d	veek cal -	-		
14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exercise	er w retiong, d cises	veek cal -	2		
14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching e-teaching theoretical and practical exerce e-exams, prepa	er w retiong, d cises arat	veek cal -	2		
14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so	er w retiong, d cises arat	veek cal -	2		
<u>14.</u> 15.	Total available time Distribution of available time Forms of teaching / learning activities	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exerce e-exams, prepa- independent so work	er w retiong, d cises arat	veek cal -	2		
14.	Total available time Distribution of available time Forms of teaching / learning	15.1. 15.2. 16.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exerce e-exams, prepa- independent so work Project tasks	er w retiong, d cises arat emin	veek cal -	2		
<u>14.</u> 15.	Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	er w retiong, d cises arat emin ks	veek cal -	2		
<u>14.</u> 15.	Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exerce e-exams, prepa- independent so work Project tasks	er w retiong, d cises arat emin ks	veek cal -	2		
<u>14.</u> 15.	Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	er w retiong, d cises arat emin ks	veek cal -	2		
14. 15. 16.	Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	er w retiong, d cises arat emin ks	reek cal -	2		
14. 15. 16.	Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	er w retiong, d cises arat emin ks g	reek cal -	2		
14. 15. 16.	Total available time Distribution of available time Forms of teaching / learning activities Activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral)	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	er w retiong, d cises arat emin ks g	<u>veek</u> cal - s, tion of nar 70 g 10 g	2 1 1 0 00ints		
14. 15. 16. 17.	Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral) 17.3. Activity and participati	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical e-teaching theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task Home learning	er w retiong, d cises arat emin ks g	veek cal -	2 1 1 1 0 0 0 0 0 0 0 0 0 0 0		
14. 15. 16.	Total available time Distribution of available time Forms of teaching / learning activities Activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral)	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	er w retiong, d cises arat emin ks g	<u>veek</u> cal - s, tion of nar 70 g 10 g	2 1 1 1 points		

				71 to	o 80 points	8	(eight)	(C)]
				81 to	o 90 points	9	(nine)	(B)	
					o 100 points	10	(ten)	(A)	
19.	U	-	irement and	60% success from all activities before exam					
	passing	g the fin	al exam		2 points from two				
				seminar paper, attendance of lectures and					
					cises				_
20.	Langua	age of te	eaching / study	Macedonian					
21.	Methoo	l of moi	nitoring the quality	Self	Self-evaluation				
	of teacl	ning							
22.	Litera	ture							
		Requ	ired literature						
		No.	Author		Title		Publish	er	Year
	22.1.	1.	Todor Delipetrov		Physics 1		RGF		2003
		2.							
		3.							
		Addit	ional literature					·	
		No.	Author		Title		Publish	er	Year
	22.2.	1.	Lj. Petkovski		General physics		UKIM		1995
		2.	Z. Stojanov		General physics, 1	book	UKIM		1985
		3.							

Ann	nex No.3	Program of the Course	- first/second/thir	d cy	cle studies		
1.	Title of t	he Course	Physics 2				
2.	Code		2FP101212				
3.	Study Pr	ogram					
4.	Organize	er of the study program	University Goce Delcev				
	(unit or i	institute, Faculty,	Faculty of mechanical engineering				
	departm	ent)					
5.	Cycle (fin cycle)	rst, second and third	First cycle				
6.	Academi	ic year / semester	1/2	7.	Number of credits	4	
8.	Professo	r (s)	Prof. Todor Delip	oetro	v, PhD		
9.	Requirer Course	ments for enrollment the	Student has enrol	led c	current year		
10.	Students	s of the curriculum (comp are introduced to the basic nd atomic physics	,	of el	lectromagnetism,	optics,	
11.	Content	of the course program:					

12.	Electros Joule's I susceptil electrica thin lens lattice. A radioacti Learnin Lectures	tatics: C Law, Ol bility. A l oscilla equation tomic tive radi g meth s, exerci	Coulomb's law, e nm's law, therma AC: effective valu- ations. Geometric on, optical instru and nuclear phys ation, detectors a ods: ses (numerical a	electric al phen ue of a cal op ments ics: sp and pr	cal we nome altern tics: 1 2. Phy pectru otecti actica	f gas, melting, boil ork and power of the na, magnetic perm ating current, power ight rejection and sical optics: nature of hydrogen ato on, radioactive dec l), papers and hom	he elec eability er of al image of ligh om, qua cay law	tric current y and ternating c in the flat r nt, laser, op antum theor	t, urrent, nirror, otical	
13.	Total av					156 hours				
14.			available time	· · _ ·		2 + 2 + 1 / per wee				
15.			f teaching / learning 15.1. lectures / theoretical -				l -	2		
	activitie	S				ntact teaching,				
				150		teaching		2		4
	15.2. theoretical and					2				
					practical exercises, e-exams, preparation of					
						dependent semina				
						ork	11			
16.	Other f	With Other forms of activities 16.1. Project tasks						-		
				16.2		dividual tasks		1		-
				16.3	. H	ome learning				
17.	Method	of asse	essment				I			-
	17.1.	Fests / o	oral exams				70 p	oints		1
		Seminal and/or o		ect - J	presentation: written 10 p		10 p	points		
			and participati	on			20 pc	0 points		1
18.			iteria (points /		up 5	0 points	5	(five)	(F)	-
-	score)			F	-	o 60 points	6	(six)	(E)	1
	-			F		o 70 points	7	(seven)	(D)	7
						80 points	8	(eight)	(C)	
					81 to	90 points	9	(nine)	(B)	
					91 to	o 100 points	10	(ten)	(A)	
19.	0	-	irement and			success from all a				
	passing	the fina	al exam			2 points from two				
						nar paper, attendar	nce of l	lectures and	l	
20	T				exer					_
20.	0	0	aching / study			edonian				_
21.	Method of teach		nitoring the qua	lity	Self-	evaluation				
22.	Literat	ure								
-			red literature							
	22.1.	-				Title		Publish	er	Year
	22.1.	No.	Author			Title		Publish	er	

	1.	M. Delipetrev	Physics 2	UGD	2013
	2.	B. Doneva			
	3.				
		tional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.	Z. Stojanov	General physics, book 2	UKIM	1985
	2.				
	4.				

1. Title of the Course Electrotechnics and Elec 2. Code 2ET110012 3. Study program Production Engineering / Transport, Organization and University "Goce Delcev" 4. Organizer of the study program University "Goce Delcev"	nd Logistics
3. Study program Production Engineering / Transport, Organization and	0
Transport, Organization and	0
	0
4. Organizer of the study program University "Goce Delcev"	
	1
(unit or institute, Faculty, Faculty of Mechanical Eng	gineering-Vinica
department)	
5. Cycle (first, second, or third 1 st cycle	
study cycle)	
A cadamic year / semester	imber of 4
EK EK	TS credits
8. Professor (s) Roman Golubovski, Assis	tant Professor
9. Requirements for enrollment of enrolled 1 st semester	
the course	
10. Purposes of the curriculum (competencies): Introduction to basic principles of electrotechnics and electronic	20
11. Contents of the course program:	
1. Electric Current - Intensity, Current Field, Density	
2. Electric Voltage and Potential	
3. Basic Laws - Joul's, Ohm's, I & II Kirchhoff's	
4. Magnetic Flux, Magnetic Field and Magnetism	
5. Magnetic Induction, Ampere's Law and Magnetic Circu	it
6. Electrical Measurements	
7. Semiconductors	
8. Diodes	

	9	BJT Transistors				
	10	. MOSFET Transistors				
	11	. Thyristors				
	12	. Operational Amplifiers				
12.	Learn	ing methods: Lectures, n	umerio	cal exercises, individual	and te	eam projects,
	home	work.				
13.		available time		120		
14.		bution of available time	1	2+1+1		1
15.		s of teaching / learning	15.1.		l -	2
	activi	ties		contact teaching, e-		
			15.0	teaching	<i>·</i> · · · ·	1
			15.2.	1	etical	1
				exercises, e-exams, preparation of		
				independent semina	r	
				work	i II	
16.		forms of studying	16.1.			
	activities		16.2.	Individual tasks		1
			16.3.	B. Home learning		
17.	Meth	od of assessment				
	17.1.	Tests / oral exams			70 pc	oints
	17.2.	Seminars (paper / proj	ect - n	presentation: written	10 points	
		and/or oral)	Per la		10 points	
	17.3.	Activity and participati	on		20 pc	oints
18.	Asses	sment Criteria (points /		Up 50 points	5 (fiv	ve) (F)
	score)	· =		51 to 60 points	6 (siz	x) (E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points	8 (eig	ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points		en) (A)
19.	0	ture requirement and		60% of pre-exam activi		
	passir	ig the final exam		points from 2 midterm		1 0
20	Ŧ			and attending of lecture	s and	discussions
20 .	0	age of teaching / study		Macedonian		
21.		od of monitoring the qua	lity	Self-evaluation		
	of tea	ching				

22.	Literat	ure				
		Requir	red literature			
		Orde	Author	Title	Publisher	Year
	22.1.	r				
		No.				
		1.	M. Popnikolova-Radevska	Electrotechnics	TF, Bitola	2004

	2.	M. Kamilovski	Electronics 1	UKIM, Skopje	2005
	Additi	onal Literature			
	Orde	Author	Title	Publisher	Year
22.2	r				
	No.				
	1.				

Ann	nex No.3	Program of the Course	- first cycle studies	5				
1.		the Course	Casting technology					
2.	Code		2MF101812					
3.	Study Pr	rogram	Production engine and Logistics	eerin	g/Transport Orga	nization		
4.	Organiz	er of the study program	University Goce I	Delce	ev-Stip,			
	(unit or i departm	institute, Faculty, ient)	Faculty of Mechanical Engineering- Vinica					
5.	Cycle (fi cycle)	rst, second and third	First cycle					
6.	Academi	ic year / semester	First / I semester	7.	Number of credits	4		
8.	Professo	or (s)	Slavco Cvetkov, I	PhD,	Assi.Professor			
9.	Require the Cour	ments for enrollment rse	No					
11.		of the course program: ntroduction to the casting						
		atroduction to the casting						
		Casting metalurgy						
	4. S	and casting						
	5. C	Centrifugal casting						
		recise casting						
		acuum casting						
		Casting under pressure						
		leaters for melting						
	10. Tools for casting11. Construction tools for casting							

	12	. Defects in casting				
12.	Learn	ing methods: – Teaching, exercis	ses, pro	ojects assignment		
13.		available time		120	1	
14.		bution of available time	1 = 1	2 + 1 + 1 / per wee		2
15.		s of teaching / learning	15.1.		-	2
	activit	lies		contact teaching, e-teaching		
			15.2.	0	tical	1
			exercises,		iicai	1
				e-exams, preparation	n of	
				independent semina		
				work		
16.	Other forms of activities		16.1.	Project tasks		/ hours
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		/ hours
17.		od of assessment				
	17.1.	Tests / oral exams			70	points
	17.2.	Seminars (paper / proj and/or oral)	ject - p	presentation: written	10 p	points
	17.3.	Activity and participat	ion		20 p	oints
18.	Assess	sment Criteria (points /	1	up 50 points	5(fiv	re) (F)
	score)	_		51 to 60 points	6(six	(E)
				61 to 70 points	-	ven) (D)
				71 to 80 points		ght) (C)
				81 to 90 points		ne) (B)
10	C.	· · · ·		91 to 100 points	(en) (A)
19.		ture requirement and		60% success from all pr		
	passin	g the final exam		pointsfrom two mid-terr attendance of lectures an		
20.	Lang	age of teaching / study		Macedonian		101505
21.	-	od of monitoring the qua		Self-evaluation		
#1 •	of tea	e i	iiity)			

	Requ	ired literature			
	No.	Author	Title	Publisher	Year
22.1.	1.	Zoran Anisic	Production technologies	Visa Tehnicka Skola	2003

	3.							
	Addi	Additional literature						
	No.	Author	Title	Publisher	Year			
22.2	1.							
	2.							
	3.							

Ann	nex No.3	Program of the Course	- first cycle studies	5			
1.	Title of 1	the Course	Mathematics II				
2.	Code		2FI100412				
3.	Study P	rogram	Production Engin	eerir	ng /Transport,		
		8	Organization and		0 1		
4.	Organiz	er of the study program	University Goce I	Delc	ev - Stip		
		institute, Faculty,	Faculty of mechan	nical	engineering-Vinic	a	
5.	departm Cycle (fi	rst, second and third	First cycle				
	cycle)		, , , , , , , , , , , , , , , , , , ,				
6.	Academic year / semester		First/II	7.	Number of	8	
0					credits		
8.	Professo	or (s)	Prof. Martin Lukarevski PhD /				
9.	Doquiro	ments for enrollment	Prof. Jordan ZivanovikPhD				
9.	the Cour		Enrollment of the first cycle study program				
11.	knowled Content 1. T	lge and understanding of th ge of ICT in mathematics, f of the course program: he concept of Integral Calcul nd integration by parts, funda oncept, properties and applic	flexible use of know us: Indefinite integra amental integration f	vled; II – in	ge in practice. Itegration by substitu	ution	
	 2. Infinite series: Criteria for convergence, alternating series, Conditional and absolute convergence. Sequences and series of functions. Power series. Circle of convergence. 						
	3. Multivariate Calculus: definition, properties and graphics of functions several variables; Partial derivatives; Maximum and minimum values; T total differential.						
	4. N	Iultiple integrals.					
	0	ntroduction of differentia rder differential equation for ifferential equations and ot	or the exponential f	unct	ion; First-order line	ear	

 Lectures, e-learning, individual and team projects individual and team projects individual and team projects Consultations. Total available time 216 Total available time 3+2+2 / per week Forms of teaching / learning activities IS. Forms of teaching / learning activities IS. Forms of teaching / learning activities IS. Iterretical and practical contact teaching, e-teaching = theoretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical contact teaching Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, propert seminar work Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, propertical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-examastivities or minimum 42	12.	Learn	ing methods:				
Image: second secon	12.	Louin	•				
 individual and team projects individual and team projects Consultations. 13. Total available time Consultations. 14. Distribution of available time 3+2+2 / per week 3+2+2 / per week 15. Forms of teaching / learning activities 15.1. lectures / theoretical - contact teaching, e-teaching 15.2. theoretical and practical exercises, e-exams, preparation of independent seminar work 16.2. Individual tasks 1 hours 16.3. Home learning hours 17.1. Tests / oral exams 16.3. Home learning hours 17.4. Seminars (paper / project - presentation: written and/or oral) 17.3. Activity and participation 17.3. Activity and participation 20 points 11.0 points 61 to 70 points 7 (six) (E) 15 to 60 points 6(six) (E) 16 to 60 points 16 to 90 points 10 (cm) (A) 10 (cm) (A) 19. Signature requirement and passing the final exam	Í						
Image: Image			– e-learning,				
13. Total available time 216 14. Distribution of available time 3+2+2 / per week 15. Forms of teaching / learning activities 15.1. lectures / theoretical - contact teaching, e-teaching 3 16. Other forms of activities 16.1. Project tasks 1 hours 16. Other forms of activities 16.1. Project tasks 1 hours 17. Method of assessment 16.2. Individual tasks 1 hours 17.1. Tests / oral exams 70 points 10 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 10 points 17.3. Activity and participation 20 points 5(five) (F) 51 to 60 points 6(six) (E) 18. Assessment Criteria (points / score) 10 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions			 individual and tea 	am proj	jects		
13. Total available time 216 14. Distribution of available time 3+2+2 / per week 15. Forms of teaching / learning activities 15.1. lectures / theoretical - contact teaching, e-teaching 3 16. Other forms of activities 16.1. Project tasks 1 hours 16. Other forms of activities 16.1. Project tasks 1 hours 17. Method of assessment 16.2. Individual tasks 1 hours 17.1. Tests / oral exams 70 points 10 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 10 points 17.3. Activity and participation 20 points 5(five) (F) 51 to 60 points 6(six) (E) 18. Assessment Criteria (points / score) 10 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions			- Consultations				
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14. Distribution of available time 3+2+2 / per week 15. Forms of teaching / learning activities 15.1. lectures / theoretical - contact teaching, e-teaching 3 activities 15.2. theoretical and practical exercises, e-exams, preparation of independent seminar work 2 16. Other forms of activities 16.1. Project tasks 1 hours 16. Other forms of activities 16.1. Project tasks 1 hours 17. Method of assessment 16.2. Individual tasks 1 hours 17.1. Tests / oral exams 70 points 10 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 10 points 17.3. Activity and participation 20 points 5(five) (F) 51 to 60 points 6(six) (E) 18. Assessment Criteria (points / score) up 50 points 5(five) (C) 81 to 90 points 8 (eight) (C) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points for 2 miniterm exams, project activitie and attending of lectures and discussions							
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Image: Image	15.			15.1.		1 -	3
Image: second secon		activities					
Image: Image				15.2.		ctical	2
16. Other forms of activities 16.1. Project tasks 1 hours 16. Other forms of activities 16.1. Project tasks 1 hours 17. Method of assessment 16.3. Home learning hours 17. Method of assessment 16.3. Home learning hours 17.1. Tests / oral exams 70 points 10 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 10 points 17.3. Activity and participation 20 points 5(five) (F) 18. Assessment Criteria (points / score) up 50 points 5(five) (F) 51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions					-		
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16. Other forms of activities 16.1. Project tasks 1 hours 16.2. Individual tasks 1 hours 16.3. Home learning hours 17. Method of assessment 16.3. Home learning hours 17. Tests / oral exams 70 points 10 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 10 points 17.3. Activity and participation 20 points 5(five) (F) score) 51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 10 (ten) (A) 90 ints 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions					-	r	
16.2. Individual tasks 1 hours 16.3. Home learning hours 17.1. Tests / oral exams 70 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 17.3. Activity and participation 20 points 18. Assessment Criteria (points / score) up 50 points 5(five) (F) 51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions							
16.3. Home learning hours 17. Method of assessment 70 points 17.1. Tests / oral exams 70 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 17.3. Activity and participation 20 points 18. Assessment Criteria (points / score) up 50 points 5(five) (F) 5 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions	16.	Other	forms of activities	16.1.	Project tasks		1 hours
17. Method of assessment 17.1. Tests / oral exams 17.1. Tests / oral exams 17.1. Tests / oral exams 17.2. Seminars (paper / project - presentation: written and/or oral) 17.3. Activity and participation 17.3. Activity and participation 18. Assessment Criteria (points / score) 9. 51 to 60 points 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions				16.2.	Individual tasks		1 hours
17.1.Tests / oral exams70 points17.2.Seminars (paper / project - presentation: written and/or oral)10 points17.3.Activity and participation20 points18.Assessment Criteria (points / score)up 50 points5(five) (F)51 to 60 points6(six) (E)61 to 70 points7 (seven) (D)71 to 80 points9 (nine) (B)91 to 100 points10 (ten) (A)19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions				16.3.	Home learning		hours
17.1. Tests / oral exams 70 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 17.3. Activity and participation 20 points 18. Assessment Criteria (points / score) up 50 points 5(five) (F) 5 51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions	17.	Metho	od of assessment				
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17.3.Activity and participation20 points18.Assessment Criteria (points / score)up 50 points5(five) (F)51 to 60 points6(six) (E)61 to 70 points7 (seven) (D)71 to 80 points8 (eight) (C)81 to 90 points9 (nine) (B)91 to 100 points10 (ten) (A)19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions		17.2.	Seminars (paper / proj	ect - pi	resentation: written		
18.Assessment Criteria (points / score)up 50 points5(five) (F)18.Assessment Criteria (points / score)up 50 points5(five) (F)19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions				-		-	
score)51 to 60 points6(six) (E)61 to 70 points7 (seven) (D)71 to 80 points8 (eight) (C)81 to 90 points9 (nine) (B)91 to 100 points10 (ten) (A)19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions		17.3.	Activity and participati	ion		20 po	oints
61 to 70 points7 (seven) (D)71 to 80 points8 (eight) (C)81 to 90 points9 (nine) (B)91 to 100 points10 (ten) (A)19. Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions	18.	Assess	sment Criteria (points /	τ	ıp 50 points	5(fiv	e) (F)
71 to 80 points8 (eight) (C)81 to 90 points9 (nine) (B)91 to 100 points10 (ten) (A)19. Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions		score)					
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19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions					.		
passing the final exampoints from 2 midterm exams, project activitie and attending of lectures and discussions	10	Signat	una naguinament and		4		
and attending of lectures and discussions	17.	8			-		
		Lapoin	B vire mini exum	-			1 5
20. Language of teaching / study Macedonian	20.						
21. Method of monitoring the quality Self-evaluation	21.	0	e e .	lity S	Self-evaluation		
of teaching			e i	~			

22.	Literature								
	Required literature								
	22.1.	No.	Author	Title	Publisher	Year			
	22.1.	1.	Glyn James	Modern engineering	Translation of	2009			
				mathematics	the				

				Government of R.Macedonia					
	2.	Milan Merkle	Matematicka analiza	Racunarski Fakultet - Beograd	2007				
	3.	Tatjana Atanasova Pacemska	Matematika 2	Avtorizirani predavanja	2011				
	Addi	tional literature							
	No.	Author	Title	Publisher	Year				
22.2.	1.	Nikita Sekutkovski	Matematicka analiza 1	Prosvetno delo - Skopje	2011				
	2.	Boro Piperevski	Matematika 2	FEIT - Skopje	2008				
	3.								

Ann	ex No.3 Program of the Course	- first cycle studies	5				
1.	Title of the Course	Engineering grap	phics	5			
2.	Code	2FP100912					
3.	Study Program	Production Engine	eerin	g /Transport,			
		Organization and	Logi	stics			
4.	Organizer of the study program	University Goce I	Delce	ev-Stip			
	(unit or institute, Faculty,	Faculty of Mechanical Engineering - Vinica					
	department)						
5.	Cycle (first, second and third	First cycle					
	cycle)						
6.	Academic year / semester	First / second7.Number of6					
		semester		credits			
8.	Professor (s)	Assi. Prof. Slavco	Cve	etkov, Ph.D.			
9.	Requirements for enrollment	None					
	the Course						
10.	Purposes of the curriculum (comp						
	Training in drawing and reading tec	hnical drawings of	macl	hine parts. Trainir	ig in		
	drawing machine parts in the progra	m package Auto C	AD.				
11.	Content of the course program:						
	Technical drawing. Views - basic, s				Formats,		
	naming and sizes of technical drawi						
	Technical Letter. Sections and types						
	intersections. Labeling and types of						
	position tolerance. Designation of the						
	on machined parts. Listing of the th						
	Formation of the mechanical drawing						
	orthogonal view. Formation of the r	nechanical drawing	g wor	kshop part of asse	embled		
	drawing. Technical Documentation						

12.		ing methods: res, exercises, individual v	vorks,	, hon	ne learning, consulta	tions.	
13.	Total	available time			156 hours		
14.		bution of available time			2+2+1 / per week		
15.	activities			. lectures / theoretical - contact teaching, e-teaching		2 hours	
				. th ex e- in w	neoretical and prac xercises, -exams, preparation dependent seminat ork	n of	2 hours
16.	Other forms of activities			. P	roject tasks		
			16.2	. Iı	ndividual tasks		1 hours
			16.3	. H	lome learning		
17.	Metho	od of assessment					
	17.1.	Tests / oral exams		70 p			oints
	17.2.	Seminars (paper / proj and/or oral)	ect -]	- presentation: written 10 points			oints
	17.3.	Activity and participati	ion	20 p		20 po	oints
18.	Assess	sment Criteria (points /		up 5	50 points	5(fiv	e) (F)
	score)		_		o 60 points	6(six	
			-		o 70 points	· · ·	ven) (D)
			-		o 80 points		(C)
			-		o 90 points o 100 points	· ·	ne) (B) en) (A)
19.	Signat	ture requirement and			of pre-exam activit		
17.	passing the final exam			poir	attending of lectures	exams,	project activities
20.	Lang	age of teaching / study			zedonian	s anu (115005510115
20.	0	od of monitoring the qua	lity		2-evaluation		

	Requ	ired literature			
	No.	Author	Title	Publisher	Year
22.1.	1.	Risto Taškovski	Engineering Graphics	Mechanical faculty, Skopje	2008
	2.				
	3.				
22.2.	Addi	tional literature			

No.	Author	Title	Publisher	Year
1.				
2.				
3.				

Ann	ex No.3 Program of the Co	urse - f	irst cycle studi	ies			
1.	Title of the Course	Te	echnical Mecha	anics	s I (statics)		
2.	Code	2N	/IF100212				
3.	Study Program	Pr	oduction Engin	eerin	ng /Transport, Or	gani	zation
		an	d Logistics				
4.	Organizer of the study program	m Uı	niversity "Goce	Del	cev"- Stip.		
	(unit or institute, Faculty,	Fa	culty of Mecha	nica	l Engineering -V	inica	ı
	department)						
5.	Cycle (first, second and third	Fi	rst cycle				
	cycle)			1			1
6.	Academic year / semester	Fi	rst / second	7.	Number of cre	dits	6
8.	Professor (s)		ssi. Prof. Slavco	o Cv	etkov, Ph.D		
9.	Requirements for enrollment 1	the No)				
	Course						
10.	Purposes of the curriculum (competencies):Students are introduced to statics: forces,						
	moments, carriers, equilibrium of	of bodies	s, friction, cent	re of	gravity;		
	~						
11.	Content of the course program		•.•				
	1.System of forces acting in the	plane, c	omposition and	l dec	omposition of fo	rces	acting
	at a point;	.	2 1				
	2.Momentof force about a point,	-					
	3.System of forces attacking par			_			
	4. Graphic alignment of forces,			,			
	5. Planar carriers, transverse and 6.Simple beam loaded with cond						
	7.Simple beam loaded with a co			tor	ves: Console:		
	8.Beam with overhangs; Gerber			3 1010	es, console,		
	9. Statically determined framew			rder	· ·		
	10.Statics in space; Spatial carrie		Jords, Daniec gl	uuu	· • •		
	11.Sliding friction, rolling friction		on of the rope:				
	12.Centre of gravity line, surface				ms;		
12.	Learning methods:		<u>,</u> ,		,		
-	Lectures, Laboratory exercises,	e-learnii	ng, individual a	nd te	am projects, con	sult	ations.
13.	Total available time		156 hours		1 5 / 5		
14.	Distribution of available time		2 + 2 + 1/per	week			
15.	Forms of teaching / learning	15.1.	lectures / theo			S	
	activities		contact teachi	ng,			
			e-teaching	-			
		15.2.	theoretical and	d pra	ctical 2hour	S	
			exercises,	-			
			e-exams, prep	arati	on of		
			independent s	emir	ar work		

16.	Other	forms of	f activities	16.1.	Project tasks				
				16.2.	Individual tasks		1 hour		
				16.3.	Home learning				
17.	M-4h	1 . 6			8				
17.	17.1.	od of asse	oral exams			70			
	17.1.			ot n	econtotion, whitton	10			
	17.2.	and/or		eet - pi	resentation: written	10			
	17.3.	7.3. Activity and participation			20				
18.	Assess	sment Cr	iteria (points /		to 50 points	5(fiv	e) (F)		
	score)				from 51 to 60 points	6(six	(E)		
				1	from 61 to 70 points	-	7 (seven) (D)		
					from 71 to 80 points		8 (eight) (C)		
					from 81 to 90 points	9 (nine) (B)			
					from 91 to 100 points	· · · · · · · · · · · · · · · · · · ·			
19.	Signature requirement and								
	passing the final exam				from 2 midterm exams,			nd	
20	T	-			attending of lectures and	d discu	ssions		
20.	_	-	eaching / study		Macedonian				
21.	Metho of tead		nitoring the qual	ity	Self-evaluation				
22.	Litera	0							
		Requir	ed literature						
		No.	Author]	Fitle	Publ	isher	Year	
		1.	Simeon]	Fechnical mechanics	UGE	sher Year -Stip 2008 -Stip 2008 -Stip 1981 -Stip 2008 -Stip 2008 -		
			Simeonov	1	(peer reviewed script)			Year 2012 2008 1981 Year	
	22.1.	2.	Z.Petrevski,		Fasks from Statics		hanical	2008	
			V. Gavrilovski	,		facul	ty Skopje		
			M. Mickovski					Year 2012 2008 1981 Year	
		3.	R.Josifova	ĺ.	Fechnical mechanics 1		-	1001	
		A J J 4	nol litoratore			Skop	nje	1981	
			onal literature		D' 4	D 11	• 1	NZ	
	22.2.	No.	Author		Fitle				
		1.	B. Andonovic]	Fechnical mechanics 1		nical lty- Bitola	2006	

Anr	nex No.3	Program of the Course	- first cycle studies				
1.	Title of t	he Course	English language 1				
2.	Code		UGD100112				
3.	Study Pr	ogram	Production engineering/Transport, organization and logistics				
4.	Organize	er of the study program	Goce Delcev University				
	(unit or institute, Faculty,		Faculty of mechanical engineering				
	departm	ent)					

5.	Cycle (first, second and third cycle)	First cycle						
6.	Academic year / semester	2012/13	7.	Number of credits	6			
8.	Professor (s)	Assistant Prof. Biljana Ivanovska PhD, Prof. Tole Belcev PhD, Senior Lector M.A. Snezana Kirova						
9.	Requirements for enrollment the Course	none						
10.	 -enabling oral communication in everyday situations and expressing of your own attitudes and opinions; -understanding speech of different speakers and longer oral expressions and information; -identifying general and particular information in longer texts; -enabling written expression (compositions, letters, reports and other forms of academic writing); -vocabulary improvement; -mastering different grammar forms and structures; - ability for receptive and productive use of the English language in oral and written context; -ability for understanding and proper application of grammar forms and structures (articles, tenses, reported speech, passive voice, conditional sentences, relative sentences, modal verbs, infinitive/gerund, idioms, phrasal verbs, prepositions, wordformation, comparison of adjectives etc.) 							
12.	complaining; - writing: reports, letters, essays. Learning methods:							
Seminars, interactive method: team work, essays, homework, seminar paper, discussion, debate, cooperative learning techniques, individual work, simulation extra-curricular teaching and educating activities, individual learning.								
13.	Total available time	156						
14.	Distribution of available time	0 + 0 + 4	/ per v	week				

15.	Form: activit	s of teaching / learning ties	15.1	contact teaching, e-teaching		0
			13.2	exercises,	licai	0
				e-exams, preparatio independent semina work		
16.	Other	forms of activities	16.1	. Project tasks		2 hours
			16.2	Individual tasks		2 hours
			16.3	Home learning		hours
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 p	oints
	17.2.	Seminars (paper / pro and/or oral)	ject -	presentation: written	10 p	oints
	17.3.	Activity and participat	ion		20 pe	oints
18.	Assess	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score))		51 to 60 points	6(six	(E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points		ght) (C)
				81 to 90 points		ne) (B)
				91 to 100 points	,	en) (A)
19.	-	ture requirement and ng the final exam		60% achievement on th	e writt	en exam
20.	Langu	age of teaching / study		English language		
21.	Metho of tea	od of monitoring the qua ching	ality	Self-evaluation		

2. Lite	Literature										
	Requ	Required literature									
	No.	Author	Title	Publisher	Year						
22.1	. 1.	Virginia Evans and Jenny Dooley	Upstream -Intermediate	Express Publishing	2002						
	2.										
	3.										
	Addi	Additional literature									
	No.	Author	Title	Publisher	Year						
22.2	. 1.	Oxford Practice Grammar	John Eastwood	OUP	2009						
	2.	Practical English Usage	Michael Swan	OUP	2005						
	3.										

Ann	nex No.3	Program of the Course	- first cycle studie	S		
1.	Title of t	he Course	The modern me	chani	ical materials	
2.	Code		2MF101912	ciiuiii		
3.	Study Pr	ogram	Production engine	eering	g/Transport Organ	nization
			and Logistics			
4.	0	er of the study program	University Goce		_	
	(unit or i departm	institute, Faculty,	Faculty of Mecha	inical	Engineering-Vin	102
5.	-	rst, second and third	First cycle			
	cycle)		-			
6.	Academi	ic year / semester	First/I semester	7.	Number of credits	4
8.	Professo		Slavco Cvetkov,	PhD,	Assi. Professor	
9.	Require the Cour	ments for enrollment	No			
10.		s of the curriculum (com	Detencies): At the e	end o	f the course. stude	ents will
11.		cative studying in the area of the course program:	of the mechanical	mate	rials.	
	1. In	troduction to the newest m				
		he modern engineering ma	aterials			
		omposites				
		troduction to fullerenes				
		iomaterials an d their usag	ge			
		olymers mart materials				
		ellular materials				
		anomaterials				
		eramics				
	11. W	lood, paper and glues				
	12. T	he procedure of material s	selection			
12.		g methods: eaching, exercises, projects a	assignment			
13.	Total av	ailable time	120			

15	Form	a of too obing / loovering	15.1.	lectures / theoretical		2
15.		s of teaching / learning	15.1.		-	Δ
	activities			contact teaching,		
				e-teaching		
			15.2.	1	tical	1
				exercises,	-	
				e-exams, preparation		
				independent semina	r	
				work		
16.	Other	forms of activities	16.1.	Project tasks		
			16.2.	Individual tasks		1 hour
			16.3.	Home learning		
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 points	
	17.2.	Seminars (naner / nro	iect - 1			oints
	1/,20	and/or oral)	jeer - j	presentation. written	10 p	011113
	17.3.	Activity and participat	ion		20 pc	oints
18.	Assess	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score)			51 to 60 points	6(six	(E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points	8 (ei	ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points	en) (A)	
19.				60% success from all pr	e exar	n activities i.e. 42
	passin	g the final exam		pointsfrom two mid-terr	n exai	ms, seminar
				paper, attendance of lect	tures a	and exercises
20.	Langu	age of teaching / study		Macedonian		
21.	Metho	od of monitoring the qua	ality	Self-evaluation		
	of tea		2			

22.	Literature									
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.	1.	Angel Tasevski, PhD; Vladan Andonovic, MsC	The modern mechanical materials	UGD - Stip	2011				
		2.								
		3.								
	-	Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.								
		2.								
		3.								

Anr	nex No.3						
	Pro	gram of the Course - first cycle studies					
1.	Title of the Course	Engineering logistics					
2.	Code	2MF106712					
3.	Study Program	Production engineering/Transport, organization					
4.	Organizer of the study	and logistics Goce Delcev University Stip,					
		Faculty of Mechanical Engineering -Vinica					
	program(unit orinstitute,						
	Faculty, department)						
5.	Cycle (first, second and third	d First cycle studies (Bachelor studies)					
	cycle)						
6.	Academic year / semester	First/Second semester7.ECTS4					
8.	Professor (s)	Prof. Zoran Despodov, PhD					
9.	Requirements for enrollmen the Course	t No					
10.	Purposes of the curriculum(c	competencies): Familiarize students with the					
	fundamentals of Engineering	g logistics, practical application and ways of making a					
	better use of the resources						
11							
11.	Content of the course program						
	1.Introduction to logistics.						
	2. Logistics systems in ind	-					
		nd organization of production.					
	4. Supply of materials.						
	5. Storage for materials.						
	6. Inter operational transpo	-					
	7. Packaging and storage.						
	8 Means of transport in th	e system of engineering logistics.					
	o. Weans of transport in th						
	9. Transportation problems	s.					

	11. Logistics support of the flexible manufacturing.						
	12. Distribution of the fina	al prod	lucts.	-			
12.	Learning methods:	-					
	-Theory, practical teaching an	d audi	tory	exercises			
13.	Total availabletime120						
14.	Distribution of availabletime	e		2+1+1			
15.	Forms of teaching /	15.1.		ctures / theoretical - contac	t 2		
	learning activities			aching, teaching			
		15.2.		eoretical andpractical exer	cises. 1		
			e-	exams,			
			-	eparationofindependentser ork	ninar		
16.	Other forms of activities	16.1.	P	roject tasks			
		16.2.	In	dividual tasks	1		
		16.3.	H	ome learning			
17.	Method of assessment						
	17.1. Tests / oral exams				70 points		
	17.2. Seminars (paper/pro	oject -	pres	entation: written and/or	10 points		
	oral) 17.3. Activity and participation	ation			20 points		
18.	Assessment Criteria(points	ation		up 50points	5(five) (F)		
10,	/score)	_		51 to 60 points			
		_		61 to 70 points	7 (seven) (D)		
		_		71 to 80 points	8 (eight) (C)		
		_		81 to 90 points	9 (nine) (B)		
		_	91 to 100 points 9 (nine) (B) 91 to 100 points 10 (ten) (A)				
19.	Signature		60%	-			
	requirementandpassingthefi		60% success from all pre exam activities i.e. 42alpointsfrom two mid-term exams, seminar paper,				
	exam		attendance of lectures and exercises				
20.	Language ofteaching / study	7		edonian			
21.	Method ofmonitoringthe			evaluation			
	quality of teaching						
	1						

Litera	Literature										
	Requ	Required literature									
	No.	Author	Title	Publisher	Year						
22.1.	1.	T. Pantelic	Industrial logistics	ICIM,	2001						
				Krusevac							
	2.	V. Jocik	Technical logistics	Nis	2001						
	3.										
	Additional literature										
	No.	Author	Title	Publisher	Year						
22.2.	1.										
	2.										
	3.										

Ann	nex No.3	Program of the Course	- first cycle studie	es			
1.	Title of t	he Course	Thermodynamic	es			
2.	Code		2MF100312				
3.	Study Pr	ogram	Production enginand logistics	eerin	g / Transport, org	anization	
4.	Organize	er of the study program	University Goce	Delc	ev - Stip		
	(unit or i departm	institute, Faculty, ent)	Faculty of mecha	nical	l engineering-Vin	ica	
5.	Cycle (fin cycle)	rst, second and third	first cycle				
6.		c year / semester	2/III7.Number of credits8				
8.	Professo	r (s)	Assistant Prof. R	adon	nir Cvetanovski, F	hD	
9.	Requirer	ments for enrollment the	non				
	Course						
10.	Purposes	s of the curriculum (comp	petencies):Introducing the values of condition and				
	their char	nges, the basic gas laws, eq	quation of condition of ideal gases, internal				
	energy, e	ntropy, heat diagram; humi	id air				
11.	 Introdu and equat Specific I Circula fixtures; 	t of the course program: ductory terms and values of condition; Basic gas laws; Concept of ideal gas ation of condition of an ideal gas; The main laws of thermodynamics; heat capacity; Changes of condition of ideal gases; lar process; Recoverable and irreversible processes; Entropy; Double phased ; Real gases; Humid air;					
12.	-		presentations through slides, exercises, ntation of the project assignment				
13.	Total ava	ailable time	216				
14.	Distribut	tion of available time	3+2+2 / per	wee	k		

15	E		151	1	•	3
15.		s of teaching / learning	15.1.		L -	3
	activities			contact teaching,		
				e-teaching		
			15.2.			2
				practical exercises,		
				e-exams, preparatio		
				independent semina	r	
				work		
16.	Other	forms of activities	16.1.	Project tasks		1 hours
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		hours
17.	Metho	od of assessment	·			
	17.1.	Tests / oral exams			70 points	
	17.2.		ject - p	presentation: written	10 p	oints
		and/or oral)				
	17.3.	Activity and participat	ion		20 po	oints
18.	Asses	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score)			51 to 60 points	6(six) (E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points	8 (ei	ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points	10 (t	en) (A)
19.	Signa	ture requirement and		60% from pre-exam act	ivities	or 42 points
	passir	g the final exam		from the two tests, semi	inar pa	apers, attendance
				of lectures and exercise	s	
20.	Langu	age of teaching / study		Macedonian		
21.	Metho	od of monitoring the qua	ality	Self-evaluation		
	of tea	ching	-			

. Litera	ture										
	Requ	Required literature									
	No.	Author	Title	Publisher	Year						
22.1.	1.	Atanas Blazevski	Termodinamika I	UKIM,	1994						
22.1.	2.	Atanas Blazevski	Zbirka reseni zadaci po Termodinamika I	UKIM	1996						
	3.										
	Additional literature										
	No.	Author	Title	Publisher	Year						
22.2.	1.	NedjeljkaPetric, Ivo Vojnović, VanjaMartinac	Tehnicka Termodinamika	Kemisko- tehnoloskiFak ultet - Split	2007						
	2.										
	3.										

Ann	ex No.3 Program of the Co	urse - f	irst cycle studies				
1.	Title of the Course	Sti	rength of materials				
2.	Code	2N	IF100412				
3.	Study Program	Pro	Production Engineering /Transport, Organization				
		and	and Logistics				
4.	Organizer of the study program	m Un	iversity "Goce Delcev"	- Stip.			
	(unit or institute, Faculty,	Fa	culty of Mechanical Eng	gineeri	ing -Vinica		
	department)						
5.	Cycle (first, second and third	Fir	st cycle				
	cycle)		<u> </u>				
6.	Academic year / semester				of credits 8		
8.	Professor (s)		si. Prof. Simeon Simeon				
9.	Requirements for enrollment t Course	he At	tended course of technic	cal me	chanics 1		
10.	Purposes of the curriculum (co	mneter	ncies).				
10.	Students are introduced to the m	-		tresses	s, dimensioning		
11.	Content of the course program		,		, <u></u>		
	Geometric features of planar sec		atic moment, the mome	nt of i	nertia, Steiner's		
	theorem; Tensile and compressiv				-		
	deformation -Hooke's law. Plane		· •				
	bending, bending from forces, st			,	01		
	the bent beam; Elastic deformati	0		0	5		
	frameworks and carriers ; Buckli			-			
	hypotheses of strength ,obliquely	y bendin	ng; Complex stresses of	tensile	e (compressive)		
	and torsion, Complex stresses of						
	of bending and torsion ; Cylinde	r with a	thick wall, Tank with the	nin wa	ll; Strength of the		
	material under dynamic load effe	ect.					
12.	Learning methods:						
	Lectures, Laboratory exercises, e	e-learnir		projec	ts, consultations.		
13.	Total available time		216 hours				
14.	Distribution of available time	1	3+2+2/per week				
15.	Forms of teaching / learning	15.1.	lectures / theoretical -		3 hours		
	activities		contact teaching,				
			e-teaching				
		15.2.	theoretical and practic	al	2hours		
			exercises,				
			e-exams, preparation				
			independent seminar	work			
16.	Other forms of activities	16.1.	Project tasks		1hour		
		16.2.	Individual tasks		1 hour		
		16.3.	Home learning				
17.	Method of assessment	I	1		1		
	17.1. Tests / oral exams			70			
	17.2. Seminars (paper / proj and/or oral)	ect - pr	esentation: written	10			
	17.3. Activity and participati	ion		20			
		UII		20			

10		1.0	• . •					
18.				to 50 points	5(five)(F)			
	score)			from 51 to 60 points	6(six) (E)			
				from 61 to 70 points 7 (seven) (D)				
				from 71 to 80 points	8 (eight) (C)			
				from 81 to 90 points	9 (nine) (B)			
				from 91 to 100 points	10 (ten) (A)			
19.	Signature requirement and			60% of pre-exam activiti				
	passir	ng the fin	al exam	from 2 midterm exams, j		nd		
				attending of lectures and	discussions			
20.	Langu	lage of to	eaching / study	Macedonian				
21.	Method of monitoring the quality			Self-evaluation				
	of tea	ching						
22.	Litera	ture						
		Requir	ed literature					
		No.	Author	Title	Publisher	Year		
		1.	Simeon Simeonov	Strength of material	UGD-Stip	2011		
				(script)				
	22.1.	2.	A.Ilievski,	Strength of material	Dgitprint -	2008		
			Lj.Todorovska-		Skopje			
			Azievska,					
			N.Babamov					
		3.	Lj.Trajkovska	Strength of	UKIM -Skopje	1993		
				material1				
		Additio	onal literature					
		No.	Author	Title	Publisher	Year		
		1.	Lj.Trajkovska	Strength of	UKIM -Skopje	1993		
				material1 Collection		1993		
	22.2.			tasks ,				
		2.	K.Angjusev,	Strength of	Mechanical	2008		
			D.Korunovski,	material1 Collection	faculty			
			Z.Petreski,G.Tasevsk	i tasks,	Skopje	2008		
		3.						

Anı	nex No.3	Program of the Course	e - first cycle studies				
1.	Title of th	e Course	Technical Mecha	anic	s 2(kinematics, dyna	mics,	
			oscillations)				
2.	Code		2MF100612				
3.	Study Pro	gram	Production Engin	ieeri	ng /Transport, Organi	zation	
			and Logistics				
4.	Organizer	of the study program	University "Goce Delcev"- Stip.				
	(unit or in	stitute, Faculty,	Faculty of Mechanical Engineering -Vinica				
	departme	nt)					
5.	Cycle (firs	st, second and third	First cycle				
	cycle)						
6.	Academic	year / semester	Second/ third	7.	Number of credits	6	
8.	Professor (s) Assi. Prof. Simeon Simeonov, Ph.D						

9.	Requirements for enrollment	the N	lo					
10.	Course	mnoto	noios).					
10.	Purposes of the curriculum (competencies): Students are introduced to the movement of bodies, kinematics, dynamics and							
	oscillations							
11.	Content of the course program:							
11.	1. Introduction to kinematics, motion particle, velocity, acceleration;							
	2. Types of motion: rectilinear, h	-	•					
	3. Kinematics of a rigid body, translational motion, rotational motion and plane motion;							
	4.Composed motion of a rigid be	ody, co	ompositon of translations	, comp	position of			
	rotations, composition of transla							
	5. Introduction to dynamics, dyn	namics	of particle, differentiatia	l equat	tion of motion,			
	types of motion;	1	1 6 6		1.			
	6.Laws of mechanics, impulse a	and wo	rk of force, amount of m	otion,	kinetic energy,			
	potential energy;	nninai	nlag of machanica, I age	maa F)' A lambart			
	7.Dynamics of material systems principle;	, princi	pies of mechanics: Lagra	ange-L	AICHIUCIL			
	8.Moments of inertia of a body,							
	9.Rigid body dynamics, translat	tion mo	otion. rotation motion p	lane m	otion:			
	10.Oscillations general, free osc							
	resistance of oscillations is prop							
	11. Forced oscillations without r	esistan	ice, forced oscillations w	vith res	sistance (damped);			
	12. Application of oscillations in	n a tech	nnique.					
12.	Learning methods:							
	Lectures, Laboratory exercises,	e-learn		projec	cts, consultations.			
13.	Total available time		156 hours					
14.	Distribution of available time	17.1	2+2+1/ per week		21			
15.	Forms of teaching / learning activities	15.1.		- 2 hours				
	activities		contact teaching, e-teaching	•				
		15.2.		2hours				
		15.2.	exercises,					
			e-exams, preparation of	of				
			independent seminar v					
16.	Other forms of activities	16.1.	Project tasks					
		16.2.	Individual tasks		1 hour			
		16.3.	Home learning					
17.	Method of assessment							
17.	17.1. Tests / oral exams			70				
	17.2. Seminars (paper / proj	ect - p	resentation: written	10				
	and/or oral)	cet p		10				
	17.3. Activity and participati	on		20				
18.	Assessment Criteria (points /		to 50 points	5(fiv	e)(F)			
	score)		from 51 to 60 points	6(six				
	from 61 to 70 p							
. 1	from 71 to 80 points			8 (eight) (C)				
			*	8 (ei				

				from 91 to 100 points	10 (ten) (A)		
19.	Signat	ure requi	irement and	60% of pre-exam activities or minimum 42 points			
	passin	g the fina	l exam	from 2 midterm exams,	project activities a	nd	
				attending of lectures an	d discussions		
20.	Langu	age of tea	aching / study	Macedonian			
21.	Metho	d of mon	itoring the quality	Self-evaluation			
	of teac	ching					
22.	Litera	ture					
		Require	ed literature				
	No. Author		Author	Title	Publisher	Year	
		1.	S.Simeonov	Technical mechanics	UGD-Stip	2011	
	22.1.		Z.Sovreski	1(peer reviewed script)			
		2.	E,Vetijakoska	Kinematics, dynamics,	Mechanical	2008	
				oscillations	faculty-Skopje		
	3. E,Vetijakoska		E,Vetijakoska	Kinematics	Mechanical	2009	
					faculty-Skopje		
	22.2.	Additio	nal literature				
	<i>LL.L</i> .	No.	Author	Title	Publisher	Year	

Ann	nex No.3	Program of the Cours	e - first cycle studies				
1.	Title of t	the Course	Corrosion and corr	osior	n protection		
2.	Code		2MF102112				
3.	Study P	rogram	Production engineeri and Logistics	ng/T	ransport Organiza	ation	
4.	Organiz	er of the study	University Goce Del	cev-S	Stip,		
	- 0	ı (unit or institute, department)	Faculty of Mechanic	al En	gineering-Vinica		
5.	Cycle (fi cycle)	rst, second and third	First cycle				
6.	Academ	ic year / semester	Second/IIIsemester	7.	Number of credits	4	
8.	Professo	r (s)	Assi. Professor Slavco Cvetkov, PhD				
9.	Require	ments for enrollment	No				
	the Cour						
10.	have con	s of the curriculum (con petences obtained throug icative studying in the are	gh the necessary fund	of the	eoretical, method		
11.		of the course program: ntroduction to the corrosion					
	2. C	corrosion in water solutio	ns				
		itting corrosion					
	4. C	contact corrosion					

	5. Corrosion under mech	anical fa	actors							
	6. Procedures for metals									
		-								
	 Protection with electrode potential A node protection 									
	8. Anode protection									
	9. Protection with surface	e coating	g							
	10. Electrochemical proce	dures fo	or metals protection							
	11. Coating metals protect	ion								
	12. Constructive methods	for meta	als protection							
12.	Learning methods:									
	-Teaching, exercises, projects	assignn	nent							
13.	Total available time		120							
14.	Distribution of available tim	e	2 + 1 + 1 / per week		-					
15.	Forms of teaching /	15.1.	lectures / theoretical -		2					
	learning activities		contact teaching, e-teaching							
		15.2.	theoretical and practic	cal	1					
			exercises,							
			e-exams, preparation	of						
			independent seminar work							
16.	Other forms of activities	16.1.	Project tasks							
		16.2.	Individual tasks		1 hour					
		16.3.	Home learning							
17.	Method of assessment									
-	17.1. Tests / oral exams			70 p	points					
	17.2. Seminars (paper / pr and/or oral)	oject - J	presentation: written	10 p	points					
	17.3. Activity and participa	ation		20 p	oints					
18.	Assessment Criteria (points		p 50 points	5(fiv	/e) (F)					
	score)				x) (E)					
			1 to 70 points		even) (D)					
			1 to 80 points		ght) (C)					
			1 to 90 points 1 to 100 points	· · · ·	ine) (B) ten) (A)					
19.	Signature requirement and		0% success from all pre e		, , ,					
	passing the final exam		pointsfrom two mid-term							
		a	ttendance of lectures and							
20.	Language of teaching / study	y N	Aacedonian							

21.	Method of monitoring the	Self-evaluation
	quality of teaching	

Litera	ture							
	Required literature							
	No.	Author	Title	Publisher	Year			
22.1.	1.	H.J. Svetomir	Corrosion and protection	Skopje - TMF	1989			
	2.	M. Milenkovic	Corrosion and protection	Belgrade	1966			
	3.							
	Additional literature							
	No.	Author	Title	Publisher	Year			
22.2.	1.							
	2.							
	3.							

Ann	nex No.3	Program of the Course -	- first cycle studies				
1.	Title of t	he Course	Probability and s	tatis	tics		
2.	Code		2FI130712				
3.	Study Pr	ogram	Production Engine and Logistics	ering	g /Transport, Orgar	nization	
4.	Organize	er of the study program	University Goce D	Pelce	v - Stip		
		nstitute, Faculty,	Faculty of mechan	ical	engineering-Vinica	ì	
5.	Cycle (first, second and third cycle)First cycle						
6.	Academi	c year / semester	Second/IV	7.	Number of credits	4	
8.	Professo	r (s)	Prof. Tatjana Atan	asov	va Pacemska, Ph.D		
9.	Requirer the Cour	nents for enrollment se	Enrollment of the	first	cycle study program	m	
10.	Knowled	Purposes of the curriculum (competencies): Knowledge and understanding of the basic concepts and theories of probability and statistics and their flexible use in practice.					
11.	Content of the course program: Basic concepts of the probability theory. Random Experiment. Random event. Probability space. The axioms of probability. Classical definition of probability. Geometric definition of probability. Conditional probability. Total probability. Bayes' theorems or rule. Bernoulli' scheme. Approximate theorems of the Bernoulli' scheme. Discrete and continuous random variables. Random vectors. Definition of the mathematical expectation, variance and standard deviation. Functions of random						

10	Descriptive statistics. Confidence intervals. Tests of hypothesis.					
12.	Learning methods:					
	– Lectures,					
	– e-learning,					
	 individual and te 	am pro	iects			
		·· · · ·				
	– Consultations.					
13.	Total available time		120			
14.	Distribution of available time		2+1+1 / per week			
15.	0 0		lectures / theoretical	-	2	
	activities		contact teaching, e-teaching			
		15.2.	theoretical and prac	tical	1	
			exercises,		-	
			e-exams, preparation of			
			independent seminar			
1(1/1	work		1	
16.	Other forms of activities	16.1.	. Project tasks		hours	
		16.2.	. Individual tasks		1 hours	
		16.3.	Home learning		hours	
17.	Method of assessment					
	17.1. Tests / oral exams			70 p	oints	
	17.2. Seminars (paper / proj	ject - p	resentation: written	10 p	ooints	
	and/or oral)			• •	<u>.</u>	
	17.3. Activity and participat			20 p		
18.	Assessment Criteria (points /		ip 50 points		(F)	
	score)		51 to 60 points		(E)	
			61 to 70 points	· · ·	(D)	
			71 to 80 points		(C)	
			81 to 90 points 91 to 100 points	· · ·	ne) (B) en) (A)	
19.	Signature requirement and		50% of pre-exam activit			
17.	passing the final exam		points from 2 midterm e			
	F	-	and attending oflectures		1 0	
20.	Language of teaching / study		Macedonian			
21.	Method of monitoring the qua	lity S	Self-evaluation			

22.	Literat	Literature								
	22.1	Requi	red literature							
	22.1.	No.	Author	Title	Publisher	Year				

	1.	Risto Malceski	Voved vo teorijata na verojatnosta	FON	2006
	2.	Željko Pauše	Uvod u matematičku statistiku	Školska knjiga, Zagreb	1993
	3.	Nikola Tuneski, Biljana Jolevska-Tuneska	Zbirka reseni zadaci po Verojatnost i statistika	Masinski Fakultet - Skopje	2011
	Addit	ional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.				
	2.				
	3.				

Ann	nex No.3	Program of th	ne Course - first/secon	nd/thire	d cyclestudies	5
1.	Title of t	he Course	Ergonomics			
2.	Code		2MF106812			
3.	Study Pr	ogram	Production engineering and logistics	ng/Trar	isport, organiz	zation
4. Organizer of the study program(unit orinstitute, Faculty, department)		Goce Delcev University -Stip, Faculty of Mechanical Engineering Vinica			1	
5.	Cycle (fin cycle)	rst, second and third	First cycle studies (Ba	achelor	studies)	
6.	Academi	c year / semester	Second /third semester	7.	ECTS	4
8.	Professor	r (s)	Assi. Prof. Dejan Mir	akovsk	i, PhD	
9.	Requirer the Cour	nents for enrollment se	No			
10.	its princij	of the curriculum (comples, ergonomic design ce and organization.	-		n to ergonor , characteristi	
11.	Content	ofthecourse program:				

	1.Introduction to ergonomics,							
	2. Anthropometric aspect of the man-machine system,							
	3. Ergonomic principles,							
	4. Erg	4. Ergonomics as a field for quality improvement,						
	5. Erg	onomic design of the wo	orkspac	e in	modern offices,			
	6. Am	bient perception,						
	7. Imp	act of lighting in working	ng cond	litio	ns,			
	8. Pres	sentation of visual inform	mation,					
	9. Wo	rkplace and its organiza	tion,					
	10. De	esign for special groups	of peop	ole,				
	11. Hı	man errors, accidents a	nd safe	ty a	t work,			
	12. Rł	ythm of the body, work	ing abi	lity	and effects of the alcohol.			
12.	Learn	ing methods:						
		_						
		 Lectures, exerc 	ises, in	d1V1	dual tasks			
13.	Total	availabletime			120			
14.	Distri	bution of availabletime	e		2+1+1 / per week			
15.	Form	s of teaching /	15.1.		ctures / theoretical - contac	et	2	
	learni	ng activities			aching, teaching			
			15.2.		eoretical andpractical exer	rcises.	1	
				e-	exams,			
				_	eparationofindependentse ork	minar		
16.	Other	forms of activities	16.1.	Pı	oject tasks		hours	
			16.2.	In	dividual tasks		1 hours	
			16.3.	H	ome learning		hours	
17.	Metho	od of assessment						
	17.1.							
	17.2.Seminars (paper/project - presentation: written and/or10 point					10 points		
	oral)17.3. Activity and participation20 point					20 points		
18.) (F)		
	/score)			51 to 60 points	6(six)	(E)	
			-		61 to 70 points	7 (seve	en) (D)	

		71 to 80 points	8 (eight) (C)
		81 to 90 points	9 (nine) (B)
		91 to 100 points	10 (ten) (A)
19.	Signature	60% of pre-exam activities or m	inimum 42
	requirementandpassingthefinal	points from 2 midterm exams, pr	roject activities
	exam	and attending of lectures and dis	cussions
20.	Language ofteaching / study	Macedonian	
21.	Method of monitoring the	Self-evaluation	
	quality of teaching		

22.	Literat	Literature									
		Required literature									
		No.	Author	Title	Publisher	Year					
	22.1.	1. 2. 3.	Prof. R. Polenakovik	"Ergonomics" (customized lectures)	UKIM, Faculty of Mechanical Engineering, Skopje	2007					
			ional literature								
		No.	Author	Title	Publisher	Year					
	22.2.	1.									
		2.									
		3.									

An	nex No.3	Program of the Cou	rse - first cycle studies
1.	Title of th	e Course	Industrial Management
2.	Code		2MF106912
3.	Study Pro	gram	Production Engineering /Transport, Organization and Logistics
4.	program (of the study unit or institute, epartment)	University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica
5.	• /	st, second and third	First cycle

6.	Academic year / semester		cond/Third mester	7.	Number of ECTS cred		4
8.	Professor (s)		ssi. Prof. Misko Dzie	drov, F			
9.	Requirements for enrollment the Course		0				
10.	Purposes of the curriculum(co	ompete	encies):Learning of r	nanag	erial functior	ıs: plan	ning,
	organizing and staffing, leaders	_	ontrolling.				
11.	Contents of the course progra 1. Introduction to Managem						
	 Introduction to Managem Problem solving and decision 		king				
			-				
	3. Information and inform						
	4. Fundamentals of organi	izationa	al communication				
	5. Organizational commun	nicatior	n - flows, networks a	nd typ	es		
	6. Management by objecti	ves and	l managerial functio	n of pl	anning		
	7. Managerial function of organizing: division and grouping of work						
	8. Managerial function of organization: coordination, management range and organizational design						
	9. Organizational conflicts						
	10. Staffing and Motivating						
	11. Styles of leadership and	l types	of managers				
	12. Systems and processes	in cont	rolling				
12.	Learning methods:						
	Interactive teaching, exercises, and individual-study.	individ	lual and/or team wor	rk on p	projects, cons	ultatio	ns
13.	Total availabletime		120 hours				
14.	Distribution of availabletime		2+1+1				
15.	Forms of teaching /	15.1.	lectures / theoretic	cal - c	ontact	2	
	learning activities		teaching, e-teaching				
		15.2.	theoretical and pra	actica	exercises,	1	
			e-exams,				
			preparationofindo work	epend	entseminar		
16.	Other forms of activities	16.1.	Project tasks				
		16.2.	Individual tasks			1	
		16.3.	Home learning				
		10.5.					

17.	Meth	od of assessment		
	17.1.	Tests / oral exams		70 points
	17.2.	Seminars (paper/project - oral)	presentation: written and/or	10 points
	17.3.	Activity and participation		20 points
18.	Asses	sment Criteria(points	up 50points	5(five) (F)
	/score		51 to 60 points	6(six) (E)
			61 to 70 points	7 (seven) (D)
			71 to 80 points	8 (eight) (C)
			81 to 90 points	9 (nine) (B)
			91 to 100 points	10 (ten) (A)
19.	Signa	ture	60% of pre-exam activities or mi	nimum 42 points
	requi	rementandpassingthefinal	from 2 midterm exams, project ad	ctivities and
	exam		attending of lectures and discussi	ons
20.	Lang	age ofteaching / study	Macedonian	
21.	Meth	od ofmonitoringthe quality	Self-evaluation	
	of tea	ching		

22.	Litera	ture				
		Require	d literature			
		Order No.	Author	Title	Publisher	Year
	22.1.	1.	T. Kralev	Management Principles Part 1	CIM	2001
		2.				
		3.				
		Addition	nal literature	·		
		Order No.	Author	Title	Publisher	Year
		1.	T. Kralev	Management Principles Part 1	CIM	2005
	22.2.	2.	T. Kralev	Management Principles Handbook	CIM	2005
		3.	V. Bulat	Industrial Management	Faculty for Industrial Management - Kruševac	2007

Annex No.3 Program of the Course			e - first cycle studies
1.	. Title of the Course		Machine elements
2.	. Code		2MF100712

3.	Study Program		oduction Engineering /T	Transpo	ort, Organiz	zation			
			and Logistics						
4.	Organizer of the study program		University "Goce Delcev"- Stip.						
	(unit or institute, Faculty,	Fa	Faculty of Mechanical Engineering -Vinica						
	department)								
5.	Cycle (first, second and third	Fi	rst cycle						
	cycle)								
6.	Academic year / semester	se	cond / fourth 7. Nu	ımber	of credits	8			
8.	Professor (s)	As	ssi. Prof. Simeon Simeon	nov Ph	n.D				
9.	Requirements for enrollment t	he At	ttended course of Streng	th of n	naterial				
	Course		e						
10.	Purposes of the curriculum (co	mpeter	ncies):						
	Students are introduced to the properties of machine elements, their dimensioning and								
	constructing;								
11.	Content of the course program	•							
11.	Elements for joining. Separable		d fasteners types thread	led tra	nsmitters	threaded			
	fasteners, material, calculation;		• •						
	(rivets, welded connections);	The Cuges	, somatou jonnts, pins. m	separa		10			
	Springs, flexible springs, spirally	a corow	enringe construction on	d cala	ulation Bo	aring			
						anng,			
	ball bearing (rolling bearings), s					1			
	calculation; Clutches, constantly engaged, engaged-disengaged manageable clutches,								
	automatic clutches. Installation of pipes; Gears, cylindrical gears, construction and								
	calculation. Conical gears, construction and calculation; Worm and gear sets; Belts								
	transmitters; Friction transmitters; Chains.								
12.	Learning methods:								
· -·	8								
	Lectures, Laboratory exercises, o	e-learni		projec	ts, consulta	ations.			
	Lectures, Laboratory exercises, o Total available time	e-learni	216 hours	projec	ts, consulta	ations.			
	Lectures, Laboratory exercises, o	e-learni		projec	ts, consulta	ations.			
13.	Lectures, Laboratory exercises, o Total available time	e-learni	216 hours		ts, consulta	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time	•	216 hours 3 +2 +2/ per week			ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	•	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching,			ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching	-	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	•	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract	-		ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises,	- tical	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation	- tical n of	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar	- tical n of	3 hours	ations.			
13. 14. 15.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar work	- tical n of	3 hours 2hours	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar	- tical n of	3 hours	ations.			
13. 14. 15.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar work	- tical n of	3 hours 2hours	ations.			
13. 14. 15.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminar workProject tasks	- tical n of	3 hours 2hours 1hour	ations.			
13. 14. 15. 16.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, of Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of r	3 hours 2hours 1hour	ations.			
13. 14. 15. 16.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
13. 14. 15. 16.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours3 +2 +2/ per weeklectures / theoreticalcontact teaching,e-teachingtheoretical and practexercises,e-exams, preparationindependent seminarworkProject tasksIndividual tasksHome learning	- tical n of r	3 hours 2hours 1hour	ations.			
13. 14. 15. 16.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / projand/or oral)	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours3 +2 +2/ per weeklectures / theoreticalcontact teaching,e-teachingtheoretical and practexercises,e-exams, preparationindependent seminarworkProject tasksIndividual tasksHome learning	- tical n of r 70 10	3 hours 2hours 1hour				
13. 14. 15. 16. 17.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / projand/or oral) 17.3. Activity and participat	15.1. 15.2. 16.1. 16.2. 16.3. iect - pi	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminal work Project tasks Individual tasks Home learning	- tical n of r 70 10 20	3 hours 2hours 1hour 1 hour				
13. 14. 15. 16.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral) 17.3. Activity and participat Assessment Criteria (points /	15.1. 15.2. 16.1. 16.2. 16.3. ject - pi	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar work Project tasks Individual tasks Home learning o 50 points	- tical n of r 70 10 20 5(fiv	3 hours 2hours 1hour 1 hour e)(F)				
13. 14. 15. 16. 17.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / projand/or oral) 17.3. Activity and participat	15.1. 15.2. 16.1. 16.2. 16.3. ject - pr	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminal work Project tasks Individual tasks Home learning	- tical n of r 70 10 20 5(fiv 6(six	3 hours 2hours 1hour 1 hour				

r				1	1			
				from 71 to 80 points	8 (eight) (C)			
				from 81 to 90 points	9 (nine) (B)			
				from 91 to 100 points	10 (ten) (A)			
19.	Signat	ture requ	irement and	60% of pre-exam activities or minimum 42 points				
	passin	ig the fina	al exam	from 2 midterm exams,	project activities an	nd		
				attending of lectures and	l discussions			
20.	Langu	lage of te	aching / study	Macedonian				
21.	Metho	Method of monitoring the quality		Self-evaluation				
	of tea							
22.	Litera	ture						
		Require	ed literature					
		No.	Author	Title	Publisher	Year		
		1.	Simeon Simeonov	Strength of material	UGD-Stip	2011		
	22.1.			(script)	_			
		2.	D.Stamboliev	Machine elements	UKIM Skopje	1975		
				,1,2				
		3.	K.Trimcevski	Machine elements	Mechanical			
					faculty - Skopje			
		Additio	nal literature					
		No.	Author	Title	Publisher	Year		
		1.	M. Ognjanovik	Mechanical elements	Mechanical	2008		
	22.2.				faculty -			
	22.2.				Beograd			
		2.	S.Simeonov	Mechanical elements-	UGD -Stip	2011		
				collection tasks				
		3.						
	l		1		1			

	1.	M. Ognjanovik	Mechanical elements	Mechanical faculty - Beograd	2008
	2.	S.Simeonov	Mechanical elements- collection tasks	UGD -Stip	2011
	3.				

Anı	nex No.3 Program of the Course	- first cycle studies
1.	Title of the Course	Fluid Mechanics
2.	Code	2MF100812
3.	Study Program	Production Engineering /Transport,
		Organization and Logistics
4.	Organizer of the study program	University Goce Delcev - Stip
	(unit or institute, Faculty,	Faculty of mechanical engineering-Vinica
	department)	

5.	Cycle (first, second and third cycle)	Fi						
6.	Academic year / semester	II	II/IV semester7.Number of credits					
8.	Professor (s)	A	ssi. Prof. Radon	nir Cv	vetanosk	i, Ph.D		
9.	Requirements for enrollment the Course		one					
10.	Purposes of the curriculum (c of fluids, and training for calcul mechanic							
11. 12.	Content of the course program Tasks and application of fluid m physical properties of gases; mo of liquids; Statics of fluids; Kim flows ideal fluid through electri viscous fluid; Methods of applic through circular pipes; Hydrauli Learning methods:	nechani ost impo ematics cal flov cation o	ortant thermody flow; ideal flui v; two-dimensio of fluid mechani	namic d dyn onal p	and ph amics; S otential	ysical pro Some eler flow; con	operties nentary vection	
12.	Theoretical lectures, auditory exercises, independent elaborati					hrough s	lides,	
13.	Total available time		156 hours					
14.	Distribution of available time		2+2+1 / per	r wee	k			
15.	Forms of teaching / learning activities	15.1.	lectures / theoretical -		2			
	acuvities		contact teach e-teaching	ing,				
		15.2.	theoretical ar exercises,	nd pr		2		
			e-exams, prej independent					
16.	Other forms of activities	16.1.	e-exams, prej	semir		hours		
16.	Other forms of activities	16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks		1 hours		
16.	Other forms of activities		e-exams, prej independent work Project tasks	semir sks				
	Other forms of activities Method of assessment	16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks		1 hours		
		16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks	nar	1 hours		
	Method of assessment	16.2. 16.3.	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	nar 70 p	1 hours hours		
	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / proj	16.2. 16.3.	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	nar 70 p 10 p	1 hours hours		
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)	16.2. 16.3. ect - p	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	70 p 10 p	1 hours hours points points		
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participat	16.2. 16.3. ect - рі	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	10 p 70 p 10 p 5(fiv	1 hours hours ooints ooints oints		
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participatAssessment Criteria (points /	16.2. 16.3. ect - p	e-exams, prej independent work Project tasks Individual ta Home learnin resentation: wr	semin sks ng	70 p 70 p 10 p 20 p 5(fiv 6(six	1 hours hours points points oints re) (F)		
16. 17. 18.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participatAssessment Criteria (points /	16.2. 16.3. ect - print ion	e-exams, prej independent work Project tasks Individual ta Home learnin resentation: wr	semin sks ng	70 p 70 p 10 p 5(fiv 6(six 7 (se 8 (ei	1 hours hours points points e) (F) c) (E)		

		91 to 100 points	10 (ten) (A)
19.	Signature requirement and	60% of pre-exam activit	ties i.e. 42 points from
	passing the final exam	two mid-term exams, see	eminar paper,
		attendance of lectures an	nd exercises
20.	Language of teaching / study	Macedonian language	
21.	Method of monitoring the quality	Self-evaluation	
	of teaching		

].]	Literature										
		Required literature									
		No.	Author	Title	Publisher	Year					
		1.	Ass. Prof. Ph.D Radomir Cvetanoski	Fluid Mechanics	UGD	2009					
	22.1.	2.	Frank White	Fluid Mechanics	Ars Lamina Skopje	2009					
		3.	Ilija Mijakovski	Fluid Mechanics- collection solution tasks	Technical Faculty - Bitola	1994					
		Additional literature									
		No.	Author	Title	Publisher	Year					
,	22.2.	1.									
		2.									
		3.									

Ann	nex No.3	Program of the Course	- first cycle studies	5		
1.	Title of t	he Course	Numerical metho	ds		
2.	Code		2FP101512			
3.	Study Pr	ogram	Production Engine and Logistics	ering	/Transport, Orga	nization
4. Organizer of the study program		University Goce D	elcev	-Stip		
	(unit or i departm	institute, Faculty, ent)	Faculty of Mechan	ical e	engineering -Vini	ca
5.	Cycle (fi cycle)	rst, second and third	First cycle			
6.	Academi	ic year / semester	Second/Fourth	7.	Number of credits	6
8.	Professo	r (s)	Prof. Blagoj Golor	neov,	, Ph.D.	
9.	Require the Cour	ments for enrollment rse	No			
10.	-	s of the curriculum (com numerical mathematics.	petencies): Stu	ıdent	s are introduced t	o the
11.		of the course program: Inately solving equations w			-	

12.	Rafson method. Secant method formula. Newton interpolation' interpolation. Numerical differentiation, New Trapeze and Simpson's rule. Ge method. Numerical solution of Euler method. Higher-order method Method of least squares. Techn Presentation of addicted activity CPM-critical path. Learning methods: Lectures, e-learning, individual	s formu ton inte aussian ordinar thods. I iques fo ies. Full	Ila back and forth. Two- erpolation. Numerical in elimination, Jakob and y differential equations. Runge-Kuta method. Po or network planning. Pro ker rule. PERT method-	dimen tegrati Gauss Taylo lynom ject, a time a	isional ion. Newton IP. Zajdelov or series methods. nial regression. activity, event.
13.	Total available time		156		
<u>13.</u> 14.	Distribution of available time		2+2+1 / per week		
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	2
	activities		contact teaching,		
			e-teaching		
		15.2.	theoretical and practical		2
			exercises, e-exams, preparation of independent seminar		
			work		
16.	Other forms of activities	16.1.	Project tasksIndividual tasks1		
		16.2.			1
		16.3.	Home learning		
17.	Method of assessment				
	17.1. Tests / oral exams			70 p	ooints
	17.2. Seminars (paper / pro	ject - p	resentation: written	10 p	ooints
	and/or oral)	5 I			
	17.3. Activity and participat	tion		20 p	oints
18.	Assessment Criteria (points /	ľ	p 50 points	5(fiv	ve) (F)
	score)		51 to 60 points	· · ·	x) (E)
		6	51 to 70 points	7 (se	even) (D)
			'1 to 80 points	8 (ei	ght) (C)
			1 to 90 points		ne) (B)
			1 to 100 points	· ·	en) (A)
19.	Signature requirement and		50% of pre-examactivitie		
	passing the final exam	-	points from 2 midterm ex		1 0
20	T		nd attending of lectures	and d	iscussions
20.	Language of teaching / study		Macedonian		
21.	Method of monitoring the	S	Self-evaluation		
	quality of teaching				

22.		
	22.1.	Required literature

No.	Author	Title	Publisher	Year
1.	Blagoj Golomeov	Numerical methods in mining and geology	Faculty of Natural and Technical Sciences	2009
2.				
3.				

2.	Literature									
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.	1. Virginia Evans and Jenny Dooley	Upstream -Intermediate	Express Publishing	2002					
		2.								
		3.								
		Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.	Oxford Practice Grammar	John Eastwood	OUP	2009				
		2.	Practical English Usage	Michael Swan	OUP	2005				
		3.								

Ann	ex No.3	Program of the Cours	se - first/second/ th	ird	cycle studies		
1.	Title of the	e Course	Measurement and measuring instruments				
2.	Code		2MF102212				
3.	Study Pro	gram:	Production Engineering /Transport, Organization and Logistics				
4.	Organizer	of the study program	University "Goce I	Delc	ev"- Stip,		
	(unit or in	stitute, Faculty,	Faculty of Mechan	ical	Engineering -Vini	ica	
	departmen	nt)					
5.	Cucle (firs	st, second, third cycle)	First cycle				
6.	Academic year / semester		Second / fourth	7.	Number of	4	
			semester		ECTS credits		
8.	Professor	(s)	Assi. Prof. Bratica	Ten	nelkoska, Ph.D		
9.	Requirem Course	ents for enrolment the	No				
10.	Purposes of	of the curriculum (com	petencies):Students	are i	introduced to the t	ypes of	
	measuring	instruments and their app	plication.				
11.	Content of	f the course program:					
	Basic and	general terms in metrolog	gy; Measurement an	d me	easurement concep	ot,	
	defined in	terms of metrology; Mea	suring instruments;	calip	per rule and micro	meters;	
	comparator	rs; yardsticks for measur	ing angles and cones	s; M	ethods for measur	ement	

	and control coils; measuring ma	achines	; Measuring instrument	s base	d on optical
	measurements; pressure measur		-		
	measuring flow; Measuring for	ce. Inst	ruments for measuring of	deform	nations.
12.	Learning methods;				
	Theoretical lectures, laboratory	exerci			
13.	Total available time		120 hours		
14.	Distribution of the available ti		2+1+1		
15.	Forms of teaching/ Learning	15.1			
	activities		contact teaching/e-		
		15.0	teaching		1
		15.2	Theoretical and		1
			practical exercises, e		
			exams, preparation of independent seminar		
			work		
16.	Other forms of activities		Projects tasks		
		16.2	.2 Individual tasks		1
		16.3	Home learning		
17.	Method of assessment				1
	17.1. Tests / oral exams,			70 p	oints
		ect - p	ect - presentation ; written		oints
	and /or oral	•		20	• • •
1.0	17.3. Activity and participac			-	oints
18.	Assessment Criteria (points /		to 50 points	· · ·	ve) (F)
	score)		from 51 to 60 points	<u>`</u>	x) (E)
			from 61 to 70 points	<u>`</u>	ven) (D)
			from 71 to 80 points		ght) (C)
			from 81 to 90 points	9(nine) (B)	
10			from 91 to 100 points		en) (A)
19.	Signature requirement and		60% of pre-exam activit		
	passing tne final exam		points from 2 midterm e		
20	I anguage of the shine states de-		and attending of lectures Macedonian	s and (uiscussions
20.	Language of teaching/study				
21.	Method of monitoring the quality of teaching		Self-evaluation		
	quanty of teaching				

22.	Literature								
		Require	Required literature						
		Order	Author	Title	Publisher	Yea			
		No.				r			
	22.1	1.	Bratica Temelkoska	Measurement and	University "Goce	2009			
				measuring	Delcev"- Stip.				
				instruments-textbook	Faculty of				
					Mechanical				

				Engineering - Vinica			
	2.						
	3.						
	Additional literature						
	Order No.	Author	Title	Publisher	Yea r		
22.2	1.						
	2.						

	2.		
	3.		

Ann	nex No.3 Pro	ogram of the Course	e - first cycle studie	es			
1.	Title of the C	ourse	Heat transfer				
2.	Code		MF102312				
3.	Study Progra	ım	Production Engin	eerin	g /Transport,		
			Organization and				
4.	Organizer of	the study program					
	(unit or instit	•••			engineering-Vinic	ca	
	department)	, ,	5		0 0		
5.	Cycle (first, second and third		first cycle				
	cycle)						
6.	Academic yea	ar / semester	II/IV semester	7.	Number of	4	
					credits		
8.	Professor (s)		Assi. Prof. Radon	nir C	vetanoski, Ph.D	•	
9.	Requirements for enrollment		No				
	the Course						
10.	Purposes of t	he curriculum (com	petencies): Introduc	ction	to basic concepts	of heat	
	and temperatu	ire, the basic types of	heat transfer, condu	iction	n, convection and		
	radiation, heat	t transfer devices, He	at and types of Heat	, effi	ciency and design		
11.	Content of th	e course program:					
	1. Temperature and heat; Transmission of heat; conduction heat transfer; Convective						
	heat transfer; Radiation heat transfer; Heat;						
	2. Efficiency of	of heat exchangers; C	Classification of heat	excl	hangers; Tubular h	eat	
	exchangers; P	late heat echangers;	Regenerativeheat ex-	chan	gers; Designing he	eat	
exchangers;							

12.	Lectur defens	ing methods: res with presentations thro se of the project task	ough sli	des, exercises, independ	dent el	aboration and
13.		available time		120 hours		
14.		bution of available time	[2+1+1 / per week		
15.		s of teaching / learning	15.1.	lectures / theoretical	l -	2
	activi	ties		contact teaching,		
			15.2.	e-teaching theoretical and prac	tical	1
				exercises,	iicui	1
				e-exams, preparatio	n of	
				independent seminar		
				work		
16.	Other	forms of activities	16.1.	Project tasks		hours
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		hours
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 p	oints
	17.2.	Seminars (paper / proj and/or oral)	ect - p	- presentation: written 10		oints
	17.3.	Activity and participat	ion		20 pc	oints
18.	Asses	sment Criteria (points /	I	up 50 points	5(fiv	e) (F)
	score)			51 to 60 points	6(six	(E)
				61 to 70 points	<u>`</u>	ven) (D)
				71 to 80 points		ght) (C)
				81 to 90 points	· · ·	ne) (B)
19.	Signa	ture requirement and		91 to 100 points 50% of pre-exam activit		en) (A)
19.		ig the final exam		two mid-term exams, s		_
	passing the final exam			attendance of lectures a		
20.	Langu	age of teaching / study		Macedonian language	_	
21.	Metho of tea	od of monitoring the qua	lity S			

		Required literature							
	22.1.	No.	Author	Title	Publisher	Year			
		1. A. Mojsovski	Heat transfer and mass	UKIM	1992				
		2.							
		3.							
	22.2.	Additional literature							
		No.	Author	Title	Publisher	Year			

	1.	Schlunder E. U	Heat Exchanger Design	Hamisphere	1987
			Handbook	Publishing	
				Corporation,	
				Washington,	
				USA	
	2.	John H. Lienhard	A heat transfer	Philogiston	2011
			textbook	press	
	3.				

No.	Author	Title	Publisher	Year
1.	Schlunder E. U	Heat Exchanger Design Handbook	Hamisphere Publishing Corporation, Washington, USA	1987
2.	John H. Lienhard	A heat transfet textbook	Philogiston press	2011
3.				

Anr	nex No.3	Program of the Course	- first cycle studie	s			
1.	Title of t	he Course	ManagmentInfo	rmat	tion Systems		
2.	Code		2MF106112				
3.	Study Pr	ogram	Transport, Organization and Logistics				
4.	0	er of the study program institute, Faculty, ent)	University Goce Delcev - Stip Faculty of mechanical engineering-Vinica			ca	
5.	Cycle (fi cycle)	rst, second and third	1 st cycle				
6.	Academi	ic year / semester	3 rd / 5 th	7.	Number of credits	8	
8.	Professo	r (s)	Professor Zoran H	Panov	v, PhD		
9.	Require the Cour	ments for enrollment rse	none				
10.	systems a	Purposes of the curriculum (competencies): Introduction to data, information systems and management. Hardware and software maintenance of the production information systems.					
11.	1. Data, i 2. Manag	of the course program: nformation systems; gement of information system ructure of information syst ystems);		ysten	ns for top manage	ment,	

	4. Helpful tools to support decision making;						
	-	lware and software mainte		0	matio	n systems;	
	6. Per	formance measurement sy	stem-F	PMS and their models;			
		cators to be used in a PM					
	8. JIT	approach, MRP 1, MRP 2	2, KanI	Ban system;			
		duction Information syste			;		
		esigning the architecture o		1			
		eliminary business model			ns and	technology;	
		ta architecture, applicatio					
12.	Learn	ing methods: Lecturing,	exercis	ses			
13.	Total available time 216						
14.		bution of available time		3+2+2/ per week			
15.		s of teaching / learning	15.1.	lectures / theoretical	1-	3	
100	activit		10111	contact teaching,	-	5	
l				e-teaching			
			15.2.	theoretical and prac	ctical	2	
				exercises, e-exams, preparation of			
				independent semina	r		
				work			
16.	Other activit	forms of studying	16.1.	Project tasks	1 hours		
	activit		16.2.	. Individual tasks		1 hours	
			16.3.	. Home learning		hours	
17.	Metho	od of assessment					
	17.1.	Tests / oral exams			70 p	ooints	
	17.2.	Seminars (paper / proj	ject - p	resentation: written	10 p	points	
		and/or oral)	· •				
	17.3.	Activity and participat	ion		20 p	oints	
18.	Assess	sment Criteria (points /	I	up 50 points	5(fiv	re) (F)	
	score)			51 to 60 points	6(six	x) (E)	
			(61 to 70 points	7 (se	even) (D)	
				71 to 80 points	8 (ei	ght) (C)	
				81 to 90 points	9 (ni	ne) (B)	
				91 to 100 points	`	en) (A)	
19.	0	ture requirement and		60% of pre-exam activi			
	passin	g the final exam		points from 2 midterm			
20	т			and attending of lectures and discussions			
20.	-	age of teaching / study		Macedonian			
21.		od of monitoring the qua	lity	Self-evaluation			
	of tea	ching					

22.	Literat	ure
	22.1.	Required literature

	No.	Author	Title	Publisher	Year
	1.	Prof. Zoran Panov, PhD	Informaciono- upravuvacki sistemi - lectures	UGD, Stip	2008
	2.	M. Stoilovik	Logicna sinteza upravljanja	Masinski fakultet, Nis	2002
	3.				
	Addi	tional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.	V.Bulat, Z.Gavric	Proizvodni informacioni sistemi	FIM, Krusevac	2006
	2.	Dz. Nadrljanski	Informacioni sistemi	FIM, Krusevac	2005
	3.				

Ann	Annex No.3 Program of the Course - first cycle studies						
1.	Title of th	e Course	Internal con	nbustior	n engines		
2.	Code	2MF109112					
3.	Study Pro	gram	Transport, O	rganizati	ion and Logistics		
4.	Organizer	of the study program	University "	Goce De	lcev"- Stip,		
		stitute, Faculty,	Faculty of M	echanica	al Engineering -Vinic	a	
	department)						
5.	5. Cycle (first, second and third		First cycle				
	cycle)					1 -	
6.	Academic	year / semester	third / fifth	7.	Number of ECTS credits	8	
8.	Professor	Assi. Prof. Z	latko V.	Sovreski, Ph.D			
9.	Requirem	No					
	Course						
10.	Introductio	f the course program: on to basic Thermotechnic evices heating and air con nengines			,	es, steam	
11.	Contents of	of the course program:					
	 Types of energy; energy sources; steam boilers; Heat balance and heat losses; Useful coefficient; construction of steam boilers; Thermal turbines and plants. Basic elements and classification steam turbines plants; Heating and cooling; ventilation 					ntilation	
10		rigerating plants; Motor c	ycles in engin	es miern	ai compustion		
12.		Laboratory exercises, e-lea	arning, individ	ning, individual and team projects, consultations.			
13.	Total avai	lable time	216 hours				
14.			3+2+2	3+2+2			

15.	Form activi		ing / learning	15.1.	lectures / theoretical contact teaching, e-teaching	-	3		
				15.2.	0	ical	2		
					exercises,				
					e-exams, preparation independent seminar				
16.			studying	16.1.	work Project tasks				
	activi	ties		16.2.	Individual tasks		2		
				16.3.	Home learning				
17.		od of asse				I			
	17.1.		oral exams				oints		
	17.2.	17.2. Seminars (paper / project and/or oral)		ect - pi	resentation: written	10 p	points		
	17.3.	•	and participati	on		oints			
18.			iteria (points /		up 50 points	ive) (F)			
	score)				51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D)				
					71 to 80 points		$\frac{(D)}{(D)}$		
					81 to 90 points	ne) (B)			
					91 to 100 points		en) (A)		
19.			irement and		60% of pre-exam activities or minimum 42 points				
	passir	ng the fina	al exam		from 2 midterm exams, p			d	
20.	Lang	age of te	aching / study		attending of lectures and discussions Macedonian				
21.	U	od of mor	nitoring the qua		Self-evaluation				
22.	Litera	-							
		1	ed literature						
		Order No.	Author		Title	Pu	blisher	Year	
		1.	S. Armenski		Thermotechnical machinery and devices		iversity s. Cyril and	1995	
	22.1.					Me	ethodius " opje		
		2.					1.5		
		3.							
		Additio	nal literature			I			
	22.2.	Order No.	Author		Title	Publ	isher	Year	
		1.	I. Petreski		Steam turbines		versity Cyril and	2004	

				Methodius " Skopje	
	2.	M. Dimitrovski	Engines internal combustion	University "Ss. Cyril and Methodius " Skopje	2001
	3.				

Ann	ex No.3	Program of the Cou	rse - fi	rst	cycle studies	5			
1.	Title of t	he Course	Н	Human resource management					
2.	Code				106212				
3.	Study Pr	ogram			sport, organiz	zatio	n and log	gistics	
4.		er of the study progra			ersity Goce I				
		institute, Faculty,			lty of mechai			ring	
	department)				artment of tra				l
			lo	gis	tics				
5.	Cycle (fi	rst, second and third	F	irst	cycle				
	cycle)						T		r
6.	Academi	ic year / semester	Т	hirc	d / fifth	7.	Numbe		6
							credits		
8.	Professor (s)			ssis	stant Prof. Ni	koli	nka Done	eva, PhD	
9.	Requirements for enrollment the			C					
10	Course								
10.	Purposes of the curriculum (competencies): Acquisition of knowledge about the term human resources, strategies for their development, verification, decision								
									on
11.		performance evaluation of the course program		IIai	ige managen	ient .	in the org	gamzation.	
11.		Resources Developme		he	21st Century	· 2 I	Devising	strategies f	or
		source development; 3							01
		into practice; 4. Identi							on for
		tion; 6. Career develop							
		ent; 8. Building effecti							
		nce; 10. Organizational							
	organizat	-		-		-	-		
12.		g methods:							
13.		ailable time			156				
14.		tion of available time			2+2+1/ per				
15.		f teaching / learning	15.1.		ectures / theo		cal -	2	
	activities	5			ontact teach	ing,			
			4		-teaching				
			15.2.		heoretical an	nd pi	ractical	2	
					xercises,		/• A		
					-exams, prep				
					ndependent s	semi	nar		
				W	vork				

16.	Other	forms of activities	16.1.	Project tasks		Hours	
			16.2.	Individual tasks		1 Hours	
			16.3.	Home learning		hours	
17.	Metho	od of assessment				1	
	17.1.	Tests / oral exams			70 p	points	
	17.2.	Seminars (paper / proj and/or oral)	resentation: written	10 p	points		
	17.3. Activity and participation					20 points	
18.	Assess	sment Criteria (points /	ι	up 50 points	5(five) (F)		
	score)		5	51 to 60 points	6(six	x) (E)	
			(61 to 70 points	7 (se	even) (D)	
			7	71 to 80 points	8 (ei	ght) (C)	
			8	81 to 90 points	9 (ni	ne) (B)	
			9	91 to 100 points	10 (t	en) (A)	
19.	Signa	ture requirement and	e	50% of pre-exam activi	ties or	minimum 42	
	passin	ig the final exam	I	points from 2 midterm	exams	, project activities	
			8	and attending of lecture	s and	discussions	
20.	Langu	age of teaching / study	I	Macedonian language			
21.	Metho	od of monitoring the qua	ality S	Self-evaluation			
	of tea	ching	-				

2. Lite	Literature									
	Requ	Required literature								
	No.	Author	Title	Publisher	Year					
22.1	2.	Ass. Prof. Radmil Polenakovik, PhD (prepared)	Razvoj na coveskite resursi (for internal use)	Faculty of mechanical engineering, SkopjeUKIM	2003					
	3. Addi	tional literature								
	No.	Author	Title	Publisher	Year					
22.2	. 1.									
	2.									
	3.									

Annex No.3 Program of the Course - first cycle studies					
1.	Title of th	e Course	Plants and fuel		
2. Code			2MF109612		
3.	Study Pro	gram	Transport, Organization and Logistics		

4.	Orgai	nizer of the study program	m	University "Goce Delcev"- Stip,						
	(unit	or institute, Faculty,		Facu	lty of Mechai	nical l	Engineer	ing -Vinica		
	-	tment)								
5.	Cycle cycle)	(first, second and third		First cycle						
6.		emic year / semester		Thir	d/ fifth	7. I	Number	of ECTS	4	
		·					credits			
8.	Profe	ssor (s)		Assi	. Prof. Zlatko	V. Sc	ovreski, F	Ph.D		
9.	Requirements for enrollment the									
	Cours									
10.		oses of the curriculum (co						classical a	nd	
11		ssical plants and fuels, the						1 41 1	• 1	
11.		ents of the course program								
	-	es, vehicles with modified the swith hybrid drives, electronic dri dri drives, electronic drives, electronic				-		•		
		el cells, fuelcell vehicles co					U			
		ndcombustion, general tern	-				-		ingine,	
		istion of fuels, products of								
		istion speeds.			r · · ·			,,		
12.	1	ing methods:								
				rning, individual and team projects, consultations.					tions.	
13.	Total available time				120 hours					
14.	Distri	bution of available time		2+1+1						
15.	Form	s of teaching / learning	15.1	1. I	ectures / theo	oretic	al -	2		
	activi	ties		contact teaching,						
				e-teaching						
			15.2	1			1			
					xercises,		e			
				e-exams, preparation of independent seminar						
					vork	semm	ar			
16.	Other	forms of activities	16.1		Project tasks					
					0			4		
			16.2		ndividual tas			1		
			16.3	3. I	Iome learnin	Ig				
17.		od of assessment								
	17.1.	Tests / oral exams					70 p	oints		
	17.2.	Seminars (paper / proje and/or oral)	ect - j	prese	entation: wri	tten	10 p	oints		
	17.3. Activity and participation						20 pc	oints		
18.				up 50 points			5(fiv	e) (F)		
	score)							6(six) (E)		
				61			seven) (D)			
				71 to 80 points 8 (eight) (C)			ght) (C)			
					to 90 points		9 (nine) (B)			
					to 100 points		10 (+	10 (ten) (A)		

19.	Signature requirement and			60% of pre-exam activities or minimum 42 points				
	-	g the fina		from 2 midterm exan				
	Pussii			attending of lectures and discussions				
20.	Langu	age of te	aching / study	Macedonian language				
21.	Metho	od of mon	itoring the quality	Self-evaluation				
	of tead		8 1 1					
22.	Litera	ture						
	Required literature							
		Order No.	Author	Title	Publisher	Year		
		1.	R. Pavletic	Combustion: theoretical base, fuel, engineering use - Ljubljana - R. Slovenia	Faculty of Mechanical Engineering - Ljubljana, R. Slovenia	1996		
	22.1.	2.	J.Kames	Alternative engine for cars	BEN - Technická literatura - Praha	2004		
		3.	Zl. Sovreski	Technology Fuel Cells: features and opportunity for application in JGPP in the Republic. Macedonia	University Ss. Clement Ohridski - Bitola	2003		
		Additio	nal literature					
		Order No.	Author	Title	Publisher	Year		
	22.2.	1.	E. L. Keating	Applied combustion – New York [etc.]	Mechanical enginnering, Marcel Dekker	1993		
		2.	K. Kordesch, G.	K. Kordesch, G.	K. Kordesch, G.	K. Kordesch, G.		
		3.						

Ann	ex No.3 Program of the Cours	a – first ovela studios				
	Program of the Course - first cycle studies					
1.	Title of the Course	Basics of thermotechnical machines				
2.	Code	2MF102512				
3.	Study Program	Transport, Organization and Logistics				
4.	Organizer of the study program	University "Goce Delcev"- Stip,				
	(unit or institute, Faculty,	Faculty of Mechanical Engineering -Vinica				
	department)					

5.	Cycle (first, second and third cycle)	Fi	rst cycle		First cycle					
6.	Academic year / semester	th			Number credits	of ECTS	6			
8.	Professor (s)	A	ssi. Prof. Zlatko	V. S	ovreski, P	h.D	•			
9.	Requirements for enrollment	the N	0							
	Course									
10.	Purposes of the curriculum (co	ompete	ncies):(Introduc	ing s	tudents to	basic				
	thermo technic machines, steam	boilers	, thermal turbine	es, ste	eam turbii	nes,heating	devices			
	and air conditioning, refrigeration	on plant	s, Internal comb	ustio	n engines).				
11.	Contents of the course program	m:								
	1. Types of energy; energy sour	ces; ste	am boilers; Ther	mal ł	balance					
	and heat losses; Useful coefficie	ent; con	struction of stear	m boi	ilers; The	rmal turbin	es and			
	plants.									
	2. Elements and classification of						ilation			
	plants; Refrigerating plants; Eng	gines cy	cles at internal c	comb	ustion eng	gines)				
12.	Learning methods:									
	•	e-learni	earning, individual and team projects, consultations.							
13.	Total available time		120 hours							
14.	Distribution of available time		2+1+1							
15.	Forms of teaching / learning activities	15.1.	5.1. lectures / theoretical - 2 contact teaching,							
			e-teaching	8,						
		15.2.	theoretical an	nd pr	actical	1				
			exercises,	•						
			e-exams, prej	parat	tion of					
			independent	semi	nar					
			work							
16.	Other forms of activities	16.1.	Project tasks							
		16.2.	Individual tas			1				
		16.3.	Home learnin	ıg						
17.	Method of assessment				<u> </u>					
	17.1. Tests / oral exams				70 p	oints				
	17.2. Seminars (paper / proj and/or oral)	ject - pi	resentation: wri	tten	10 p	oints				
	17.3. Activity and participat	ion			20 pc	oints				
18.	Assessment Criteria (points /	۲	up 50 points		5(fiv	e) (F)				
	score)		51 to 60 points		,	, , ,				
	,		61 to 70 points		,	6(six) (E) 7 (seven) (D)				
			71 to 80 points		```	8 (eight) (C)				
			B1 to 90 points							
						9 (nine) (B) 10 (ten) (A)				
			· · · · · · · · · · · · · · · · · · ·		10 (0					

19.	Signa	ture requ	irement and	60% of pre-exam ac	tivities or minimur	m 42 points		
		ng the fina		from 2 midterm exami				
	-	0		attending of lectures and discussions				
20.	Langu	lage of te	aching / study	Macedonian language				
21.			itoring the quality	Self-evaluation				
	of tea							
22.	Litera	ature						
		Require	d literature					
		Order	Author	Title	Publisher	Year		
		No.						
		1.	S. Armenski	Termotehnich	University	1995		
	22.1.	2.1.		machinery and	"Ss. Cyril and			
				equipment	Methodius "			
		2			Skopje			
		2.						
		3.						
		Addition	nal literature					
		Order	Author	Title	Publisher	Year		
		No.						
		1.	I. Petreski	Steam turbines	University			
					"Ss. Cyril and	2004		
	22.2.				Methodius "			
		2.	M. Dimitrovski		Skopje			
		۷.	M. Dimitrovski	Engines internal combustion	University "Ss. Cyril and	2001		
			combustion	Methodius "	2001			
					Skopje			
		3.			°FJ*			

Anı	nex No.3	Program of the Course	e - first cycle stud	ies			
1.	Title of the	e Course	Engineering eco	nom	ics		
2.	Code		2MF107012				
3.	Study Pro	gram	Production Engineering /Transport, Organization and Logistics				
4.	0	r of the study program stitute, Faculty, nt)	University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica				
5.	Cycle (firs cycle)	st, second and third	First cycle				
6.	Academic	year / semester	Third/fifth	7.	Number of ECTS 4 credits		

8.	Professor (s)	As	Assi. Prof. Misko Dzidrov, Ph.D						
9.	Requirements for enrollment tl Course	he No	No						
10. 11.	Purposes of the curriculum (con Learning in the field of engineeri making investment decisions amorelated to financial information. Contents of the course program	ng eco ong pro	nomic, the methods and analy						
11.	 Introduction to the econom Decision-making methods 		ods applied in engineering						
	3. Studying of cash flow concepts								
	4. Rate of return, return of investments,								
	5. Financial indicators for profitability, effectiveness, efficiency,								
	6. Cost analysis, revenue, profits,								
	7. Balance sheet and income statement								
	 Studying of basic economic value analysis (present value, annual analysis, incremental analysis, cost/ benefit analysis) 								
	9. Methods for calculating of depreciation								
	10. Techniques for estimating of equipment replacement								
	11. Making investment decisions among project alternatives								
	12. Learning techniques for preparation of a business plan and feasibility study								
12.	Learning methods: Interactive t			team work on					
13.	projects, consultations and indivi Total available time	dual le	arning 120 hours						
14.	Distribution of available time		2+1+1						
15.	Forms of teaching / learning activities	15.1.	lectures / theoretical - contact teaching, e-teaching	2					
		15.2.	theoretical and practical exercises, e-exams, preparation of independent seminar work	1					
16.	Other forms of activities	16.1.	Project tasks						
		16.2.	Individual tasks	1					
		16.3.	Home learning						
17.	Method of assessment			1					

	17.1.	Tests / oral exams		70		
	17.2.	Seminars (paper / project - and/or oral)	presentation: written	10		
	17.3.	Activity and participation	20			
18.	Assessment Criteria (points /		to 50 points	5(five)(F)		
	score))	from 51 to 60 points	6(six) (E)		
			from 61 to 70 points	7 (seven) (D)		
			from 71 to 80 points	8 (eight) (C)		
			from 81 to 90 points	9 (nine) (B)		
			from 91 to 100 points	10 (ten) (A)		
19.	Signa	ture requirement and	60% of pre-exam activit	ies or minimum 42 points		
	passir	ng the final exam	from 2 midterm exams,	project activities and		
			attending of lectures and	discussions		
20.	Lang	uage of teaching / study	Macedonian			
21.	Metho of tea	od of monitoring the quality ching	Self-evaluation			

22.	Litera	iterature									
		Require	ed literature								
	22.1.	Order No.	Author	Title	Publisher	Year					
		1.	V. Gecevska	Engineering Economics	Faculty of Mechanical Engineering, UKIM, Skopje	2010					
		2. D. Bojadzhioski		Enterprise Economics	Economic Faculty Skopje	1999					
		3.									
		Additional literature									
		Order No.	Author	Title	Publisher	Year					
	22.2.	1.	Michael R. Baye	Managerial Economics & Business Strategy	McGraw-Hill College	2007					
		2.									
		3.									

Ann	nex No.3	e - first cycle studies				
1.	Title of the Course		City public transport			
2.	Code		2MF109712			
3.	Study Pro	gram	Transport, Organization and Logistics			

4.	Organizer of the study program (unit or institute, Faculty, department)		iversity "Goce culty of Mecha		± ·	ng -Vinica			
5.	Cycle (first, second and third cycle)	Fir	st cycle						
6.	Academic year / semester	Th	ird/fifth	7.	Number credits	of ECTS	4		
8.	Professor (s)	As	Assi. Prof. Zlatko V. Sovreski, Ph.D						
9.	Requirements for enrollment t Course	he No	e No						
10.	 Purposes of the curriculum (competencies): (Introducing students to the organization of work in the public urban passenger transport, Acquired competence: ability to organize and to ensure the operation of public passenger transport in urban areas, introducing students to the methodology of planning or preparation of studies for public urban passenger transport. Acquired competence: Ability to approach to the preparation of studies or graduate for public urban passenger transport). Contents of the course program: Role and importance of city public transport today, Types and classification of public city transport. Flexible city public transport, organization of city public passenger transport in today's cities (ownership, regulation, financing), line transport (types and characteristics of lines and networks of city public passenger transport). Subsystem of transportation demand. Subsystem of transportationoffer, Indicators of utilization level and work 								
	of timetable and measures for r productivity indicators, tariff sys city public passenger transport, r today's urban areas, urban Plann Methodology forcity public pass limitations, analysis of the enviro and evaluation of the condition, models, Types and features of ci	formed on the line of city public passenger transport. Creating timetable, disruption timetable and measures for removing these disruptions, production volume and ductivity indicators, tariff systems and billing systems, Innovative Technologies in public passenger transport, marketing in city public passenger transport, traffic in ay's urban areas, urban Planning and city public passenger transport planning, thodology forcity public passenger transportplanning, problems, objectives and itations, analysis of the environmental impacts of traffic, data collection and analysis evaluation of the condition, Forecast models for transport needs and calibration dels, Types and features of city public passenger transport, Innovative technologies eity public passenger transport, Quality of service in city public passenger							
12.	8	loornir	a individual	and t	an project	ta conculta	tions		
13.	Lectures, Laboratory exercises, e Total available time		120 hours		ean project	is, consulta	10115.		
<u>13.</u> 14.	Distribution of available time		2+1+1						
14.	Forms of teaching / learning	15.1.	lectures / the	eoret	ical -	2			
	activities		contact teac						
		15.2.	e-teaching						

					e-exams, prepara independent sem work					
16.	Other	forms of	f activities	16.1.	Project tasks					
				16.2.	Individual tasks		1			
				16.3.	Home learning					
17.		od of asse								
	17.1.		oral exams			70				
	17.2.			ect - pr	esentation: written	n 10				
	and/or oral)17.3.Activity and participation			on		20				
18.		-	riteria (points /		o 50 points		e)(F)			
10.	score)		iteria (points /		rom 51 to 60 points		, , ,			
	score				rom 61 to 70 points		$\frac{(L)}{\text{ven}}$ (D)		
					rom 71 to 80 points		$\frac{\text{ven}}{\text{ght}}$ (C))		
					rom 81 to 90 points		ne) (B)			
					rom 91 to 100 point	· · ·	$\frac{\operatorname{ne}(\mathbf{B})}{\operatorname{en}(\mathbf{A})}$			
19.	Signa	ture reau	irement and		0% of pre-exam act			n 42 points		
		ig the fin			from 2 midterm exams, project activities and					
					attending of lectures and discussions					
20.	Langu	lage of te	eaching / study		Iacedonian					
21.	Method of monitoring the quality			lity S	elf-evaluation					
- 22	of teaching Literature									
22.	Litera	1								
			ed literature							
		Order No.	Author	Ti	tle	Publishe	er	Year		
		1.	V. Vuchic	UI	RBAN TRANSIT:	John W	illey &	2005		
				Op	perations,	Sons,In	с,			
					anning and	USA				
					onomics,					
	22.1.	2.	Zl.Sovreski		chnology	Univers		2003		
					el Cells:	Ss. Cler				
					atures and	Ohridsk	1 -			
				-	portunity for	Bitola				
					plication in JGPP					
					the Republic. acedonia					
		3.		IVI						
			nal literature							
		Order	Author		Title	Publisher	•	Year		
		No.	Aumor		The	Fuorisher	L	I Cal		
	22.2.	1.			URBAN	John Wil	lev &	2005		
		1.	V. Vuchic		TRANSIT:	Sons,Inc,	•	2005		
					Operations,	, , , , , , , , , , , , , , , , , , , ,	0.011			
1					Planning and					

			Economics,		
	2.	N. Krstanosvki	Public City Transport	University "Ss. Cyril and Methodius " Skopje	2001
	3.				

Ann	nex No.3	Program of the Course	- first cycle studie	5			
1.	Title of t	he Course	Theory of movem	lent	of motor vehicles		
2.	Code		2MF109212				
3.	Study Pr	ogram	Transport organiza	ation	and logistics		
4.	Organiz	er of the study program	University Goce D)elce	ev - Stip		
	(unit or i	institute, Faculty,	5		engineering-Vinica		
	departm	ent)	Department of Tra logistics	nspo	ort organization and		
5.	Cycle (fi cycle)	rst, second and third	First cycle				
6.	•	c year / semester	Third/sixth7.Number of credits8				
8.	Professo	r (s)	Assi. Prof. Zlatko V. Sovreski, PhD				
9.	Require	ments for enrollment	/				
	the Cour	se					
11.	dynamics - performance, and transverse dynamics - stability and handling of motor vehicles.Content of the course program:13. Basic terms, types of wheels and rolling, coefficient of rolling resistance, coefficient of adhesion, towing characteristic of the wheel, forces which act on motor vehicles, vehicle weights and surface reactions, resistance, traction 						
12.	Learning	g methods: lectures, tutori	als				

13.	Total	available time		216			
14.	Distri	bution of available time		3+2+2 / per week			
15.		s of teaching / learning	15.1.	lectures / theoretical	-	3	
	activi	ties		contact teaching,			
				e-teaching			
			15.2.		tical	2	
				exercises,			
				e-exams, preparation			
				independent seminar			
1(C	16.1.	work		11	
16.	Other forms of activities 1			Project tasks		1hours	
			16.2.	Individual tasks		1hours	
			16.3.	Home learning	hours		
17.	Method of assessment						
	17.1.	Tests / oral exams			70 p	points	
	17.2.	Seminars (paper / proj and/or oral)	ject - J	presentation: written	10 p	points	
	17.3.	Activity and participat	ion		20 points		
18.	Asses	sment Criteria (points /		up 50 points	5(fiv	re) (F)	
	score))		51 to 60 points	6(six	(E)	
				61 to 70 points	7 (se	ven) (D)	
				71 to 80 points		ght) (C)	
				81 to 90 points		ne) (B)	
				91 to 100 points		en) (A)	
19.	0	ture requirement and		60% of pre-exam activit			
	passir	ng the final exam		points from 2 midterm e			
	-			and attending of lectures	and c	liscussions	
20.	0	age of teaching / study		Macedonian			
21.	Metho of tea	od of monitoring the qua ching	ality	Self-evaluation			

22.	Literature									
		Required literature								
		No.	Author	Title	Publisher	Year				
		1.	Д. Данев	Теорија на	Машински					
				движењето на	факултет					
	22.1.			моторните возила	Скопје					
		2.	М. Ќосевски	Збирка задачи од	Машински					
	22.1.			теорија на движење	факултет					
				на моторните	Скопје					
				возила						
		3.	Драги Данев, М.	Упатство за	Машински					
			Ќосевски	изработка на	факултет					
				влечна пресметка	Скопје					

				на моторните					
				возила					
		Additional literature							
		No.	Author	Title	Publisher	Year			
	22.2.	1.							
		2.							
		3.							

Ann	nex No.3	Program of the Cou	rse - fi	rst cycle studie	S			
1.	Title of t	he Course	(Derations Rese	arch	ı		
2.	Code			MF106312				
3.	Study Pr	ogram	Γ	ransport, organi	zatio	n and log	gistics	
4.	Organize	er of the study progra		Iniversity Goce				
		nstitute, Faculty,	F	aculty of mecha	nical	enginee	ring-Vinic	a
	departm	ent)		Department of tra	anspo	ort, organ	ization an	d
5.	Cycle (first, second and third cycle)First cycle							
6.	Academi	c year / semester	L	Third / sixth7.Number of credits6				
8.	Professo	r (s)	A	ssi. Prof. Nikoli	inka	Doneva,	PhD	•
9.	Require	nents for enrollment	t he n	0				
	Course							
10.	program	s of the curriculum (con ning and its graphical i in the field of transpor	nterpro	,		iction to iod, a me		lving
11.		of the course progran						
		ear programming; 2. D	-	-		-		
		ing techniques; 5.Inver						n
	±	sses, 8. Models waiting	-				ory; 11.	
12.		factor decision. 12. Me g methods:		analytic merar	cny j	brocess		
<u>12.</u> 13.		ailable time		156 hours				
13.		tion of available time		2+2+1/per	weel	7		
15.		f teaching / learning	15.1.	^			2	
	activities			contact teach				
				e-teaching				
			15.2.					
				exercises,				
				e-exams, pre				
				independent	semi	nar		
	work							

16.	Other forms of activities 1		16.1.	Project tasks	Hours			
			16.2.	Individual tasks		1 Hours		
			16.3.	Home learning		hours		
17.	Methe	od of assessment				1		
	17.1.	Tests / oral exams			70 p	ooints		
	17.2.	Seminars (paper / proj and/or oral)	resentation: written	10 points				
	17.3.	Activity and participat	20 points					
18.	Asses	sment Criteria (points /	eria (points / up 50 points			5(five) (F)		
	score)		5	51 to 60 points	6(six) (E)			
			(61 to 70 points	7 (seven) (D)			
			7	71 to 80 points	8 (eight) (C)			
			8	81 to 90 points	9 (nine) (B)			
			ç	91 to 100 points	10 (t	en) (A)		
19.	Signa	ture requirement and	e	60% of pre-exam activities or minimum 42				
	passir	ng the final exam	I	points from 2 midterm exams, project activities				
			8	and attending of lecture	s and	discussions		
20.	Langu	uage of teaching / study	I	Macedonian language				
21.	Metho	od of monitoring the qua	lity S	Self-evaluation				
	of tea	ching	-					

22.	Literature									
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.	1. 2. 3.	DanijelaTadic PhD, MilijaSuknovic PhD, GordanaRadojevic M.A., VukicaJovanovic	Operacionaistrazivanja	Izdavackicent arzaindustrisk imenadzment plus, Krusevac	2007				
		3. Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.								
		2.								
		3.								

Annex No.3	Program of the Course - first cycle studies
------------	---------------------------------------------

1.	Title of the Course	Project Management					
2.	Code	2MF107112					
3.	Study Program	Tr	ansport, Organi	zatio	on and Logistics		
4.	Organizer of the study program (unit or institute, Faculty, department)		niversity "Goce aculty of Mecha		cev"- Stip. Il Engineering -Vi	nica	
5.	Cycle (first, second and third cycle)	Fi	rst cycle				
6.	Academic year / semester	Th	hird/fifth	7.	Number of ECT credits	S 4	
8.	Professor (s)	As	ssi. Prof. Misko	Dzi			
9.	Requirements for enrollment the Course	No)				
10.	Purposes of the curriculum (competencies): Introduction to the practice of good Project Management. Learning how to identify and schedule project resources, understanding project flowcharts. Understanding and producing critical path planning and evaluation reports. Introduction to important issues of staff selection and team management are also covered.						
11.	 Contents of the course program: What is a project and project Defining the tasks, defining task	the r	-	ect 1	nanager and his te	am	
	 Defining the project Network planning 						
	6. Estimating the activities						
	7. Defining calendars and resou						
	8. Determining critical paths - 1	PER	T and GANTT	diag	grams		
	9. Preparing a project plan	·	1				
	10. Controlling schedule, budget	l anc	i scope				
	 Management of the project Evaluating and reporting on 	proi	ect performance	2			
12.	Learning methods: Interactive teac		-		ual and/or team wo	ork on	
	projects, consultations and self-study	-	y.				
13.	Total available time		120 hours				
14.	Distribution of available time	2 +1 +1					
15.	Forms of teaching / learning 15 activities 15	5.1.	lectures / theo contact teach		cal - 2		

				e-teaching				
			15.2.	theoretical and pract	ical	1		
				exercises,				
				e-exams, preparation	of			
				independent seminar				
				work				
16.	Other	forms of activities	16.1.	Project tasks				
		-	16.2.	Individual tasks		1		
		· · · · · · · · · · · · · · · · · · ·	16.3.	Home learning				
17.	Meth	od of assessment	·					
	17.1.	Tests / oral exams			70 p	points		
	17.2.	Seminars (paper / projec and/or oral)	t - pr	esentation: written	points			
	17.3.	Activity and participation	1		20 points			
18.	Asses	sment Criteria (points /	u	p 50 points	5(five) (F)			
	score)	,				6(six) (E)		
			6	1 to 70 points	7 (se	ven) (D)		
			7	1 to 80 points	8 (eig	ght) (C)		
			8	1 to 90 points	9 (nii	ne) (B)		
				1 to 100 points		en) (A)		
19.	0	ture requirement and		60% of pre-exam activities or minimum 42 points				
	passing the final exam			from 2 midterm exams, project activities and				
				attending of lectures and discussions				
20.	Language of teaching / study			Aacedonian language				
21.		od of monitoring the qualit	y S	elf-evaluation				
	of tea	cning						

2. Litera	Literature									
	Required literature									
	Order Author No.		Title	Publisher	Year					
22.1.	1.	M. R. Djuricic, R. Bojkovic	Project Management	ICIM +	2008					
	2.									
	3.									
	Additional literature									
	Order No.	Author	Title	Publisher	Year					
22.2.	1.	V. Donev, R. Polenakovik	Project Management and MS Project	Sistem+	2001					
	2.									
	3.									

Ann	Annex No.3 Program of the Course - first cycle studies									
			Program of the Cou	irse - Ii	rst cycle studies					
1.	Title o	of the	e Course	D	ynamics of moto	or vel	nicles			
2.	. Code 2MF109912									
3.	Study	Pro	gram	Tr	ansport, Organiz	ation	and Log	gistics		
			of the study program	n _{II}	niversity "Goce I		w" Stin			
4.	(unit o depar		stitute, Faculty,		culty of Mechan		-		a	
5.		(firs	t, second and third	Fi	rst cycle					
6.	Acade	emic	year / semester	3/	sixth	7.	Numbe ECTS		4	
8.	Profes	ssor	(s)	As	ssi. Prof. Elenior	Niko			•	
9.	Requi	irem	ents for enrollment t		ternal combustion					
	Cours	-	f the one invitation (mnote		du at	ion to 41	o duncari	n of	
	-		of the curriculum (co cles, drive, driving res	_				e dynamic		
10.									5	
		systems, elasticity, comfort and safety criteria, the equations of motion, transfer functions, linear model of vehicle, driving management, tires								
			of the course program		ng management,	tiles				
					iving resistones	Drive	ing ohor	octorrictic	fthe	
	Vehicle dynamics - definition, drive, Driving resistance, Driving characteristic of the									
11	vehicle,Brake systems, Elasticity, Comfort and safety criteria, The equations of motion,									
11.	Transfer functions, SMER dynamics, Linear model of vehicles, Static management,									
	Dynamics management, Tilting of vehicle, Aimed dynamics, Newton's method, D'Alambert's method, Virtual work, Lagrange equations, Linear model of vehicle									
				ork, La	grange equations	s, Lin	ear mod	lei of venic	le	
			nt, Tires.							
12.		0	methods:	dividua	1 and taom main	ata a	ongultat	A		
12			Analitical exercises, in	aividua	1 5	cis, c	onsultat	ions.		
13.			lable time on of available time		120 hours					
14.				15 1	2 + 1 + 1		1			
			eaching / learning	15.1.	lectures / theor		al -	2		
	activit	ties			contact teaching,			2		
				15.0	e-teaching	1				
15.				15.2.	theoretical and	i pra	ctical			
					exercises,	mati	on of	1		
					e-exams, prepa			1		
					independent se	emina	ar			
	Other	for	ns of activities	16.1.	work Project tasks					
16.	- mer	10 10 10 10 10 10 10 10 10 10 10 10 10 1			0		1			
10.	16									
	Metho	od of	assessment	I	1			1		
	17.1.		ts / oral exams				70 n	oints		
17.	17.2.		ninars (paper / proje	ot - nr	esentation. writ	ton		oints		
1/.	1/•44•		l/or oral)	pr	csentanon, whit	1011	liop	omo		
	17.3.		/	n			20 pc	oints		
	17.3. Activity and participation20 points									

	Asses	sment Cr	iteria (points /	up 50 points	5(five) (F)		
	score)		`	51 to 60 points	6(six) (E)		
10	-			61 to 70 points 7 (seven) (D)			
18.				71 to 80 points	8 (eight) (C)		
				81 to 90 points	9 (nine) (B)		
				91 to 100 points	10 (ten) (A)		
	Signa	ture requ	irement and	60% of pre-exam activitie	es or minimum 42	points	
19.	passir	ng the fina	al exam	from 2 midterm exams, p	roject activities an	d	
		-		attending of lectures and	discussions		
20.	Lang	lage of te	aching / study	Macedonian language			
0.1	Method of monitoring the quality			Self-evaluation			
21.	21. of teaching						
	Litera	ature	·				
		1	d literature				
		Order					
		No.	Author	Title	Publisher	Year	
		110.			Fakulta	2008	
		1.	F.Frantisek	Dinamika na vozikla	dopravní,	2000	
				D multinu nu (ožiniu	ČVUT, Praha		
					Avtomobilov	2003	
	22.1.			Avtomobilov tehnicki	tehnicki		
		2. F.Frantisek	F.Frantisek	priracnik, Prague 2003	priracnik,		
22.					Prague		
22.			J. First a kol.,		Fakulta	2008	
			2	Zkoušeníautomobilů	Zkoušeníautomobilů a	dopravní,	
		3.	a motocyklů,		ČVUT, Praha		
			Fakulta dopravní,	motocyklů	2008		
			ČVUT, Praha 2008				
		Addition	nal literature				
		Order	Author	Title	Publisher	Year	
		No.					
	22.2.	1.					
		2.					
		3.					
		э.					

Annex No.3 Program of the Course -		Program of the Course	- first cycle studies		
1.	1. Title of the Course		Supply chain management		
2.	2. Code		2MF106412		
3. Study Program		rogram	Transport, Organization and Logistics		

4.	Organizer of the study program (unit or institute, Faculty, department)		University Goce Delcev - Stip Faculty of mechanical engineering-Vinica							
5.	Cycle (first, second and third cycle)	1 st	cycle							
6.	Academic year / semester	3 rd	$3^{rd} / 6^{th}$ 7. Number of credits 4							
8.	Professor (s)	Pr	ofessor Boris k	Krstev						
9.	Requirements for enrollment t Course	the no	e none							
10.	Purposes of the curriculum (co the supply chain.	ompeter	ncies): Introdu	ction	to the tool	s for managing				
11.	Content of the course program 1. Introduction to supply ch		nagement							
	2. Supply chain management	nt in inc	lustrial compar	nies						
	3. Supply of raw materials									
	4. Managing transport									
	5. Managing repositories									
	6. Order Process									
	7. Optimizing orders									
	8. Management of raw mate	erials in	the production	1						
	9. Optimizing the production	on proce	ess							
	10. Delivery Process									
	11. Optimizing the delivery	process								
	12. Managing inventory.									
	Learning methods: Lecturing, exercises									
12.	Learning methods: Lecturing, o	exercise	es							
13.	Total available time	exercise	156							
13. 14.	Total available time Distribution of available time		156 2+2+1/ per)				
13.	Total available time	exercise	156 2+2+1/ per lectures / the contact teach	oreti		2				
13. 14.	Total available time Distribution of available time Forms of teaching / learning		156 2+2+1/per lectures / the contact teach e-teaching theoretical an	oreti ling, nd	cal -					
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/per lectures / the contact teach e-teaching theoretical an practical exe	oreti ling, nd rcise	s,					
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/per lectures / the contact teach e-teaching theoretical an practical exe e-exams, pre independent	oreti ling, nd rcise para	s, tion of					
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/ per lectures / the contact teach e-teaching theoretical an practical exe e-exams, pre	oreti ning, nd rcise para semi	s, tion of nar					

			16.3.	Home learning		hours
17.	Meth	od of assessment				
	17.1.	Tests / oral exams		70 p		oints
	17.2.	17.2. Seminars (paper / project - presentation: written and/or oral)		10 points		
	17.3. Activity and participation		20 points			
18.	18. Assessment Criteria (points / score)up 50 points51 to 60 points		ıp 50 points	5(five) (F)		
			5	51 to 60 points	6(six) (E)	
			6	61 to 70 points	7 (seven) (D)	
			7	'1 to 80 points	8 (eight) (C)	
			8	81 to 90 points	9 (nii	ne) (B)
				1 to 100 points	,	en) (A)
19.	Signa	ture requirement and	6	50% of pre-exam activi	ties or	minimum 42
	passir	ng the final exam	-	points from 2 midterm		1 5
			a	and attending of lectures and discussions		
20.	Lang	uage of teaching / study	N	Macedonian		
21.	Metho of tea	od of monitoring the qua ching	lity S	Self-evaluation		

•	Literature									
		Requ	ired literature							
		No.	Author	Title	Publisher	Year				
	22.1.		Douglas M. Lambert, James R Stock, Lisa M ellram	Fundamentals of logistics management		2000				
_			tional literature							
		No.	Author	Title	Publisher	Year				
	22.2.	1.								
		2.								
		3.								

Study program: TRANSPORT, ORGANIZATION AND LOGISTICS (4 years)

I Semester-First year					
Mandatory subjects					
SUBJECTS	ECTS	Hours	Total		
Mathematics I	8	3+2+2	216		
Mechanical materials	8	3+2+2	216		
Computer Science	6	2+2+1	156		
Elective subject from the faculty 1	4	2+1+1	120		
Elective subject from the faculty 2	4	2+1+1	120		
Total:	30	12+8+7	828		

I Semester-First year					
Elective subjects					
SUBJECTS	ECTS	Hours	Total		
Basics of Physics	4	2+1+1	120		
Physics II	4	2+1+1	120		
Electrotechnics and elektronics	4	2+1+1	120		
Casting technology	4	2+1+1	120		

II Semester-First year						
Mandatory subjects						
SUBJECTS	ECTS	Hours	Total			
Mathematics II	8	3+2+2	216			
Engineering graphics	6	2+2+1	156			
Technical Mechanics I (statics)	6	2+2+1	156			
Elective subject from the faculty 3	4	2+1+1	120			
Elective subject from the University 1	6	0+0+1	156			
Sports and Recreation	0	0+0+2				
Total:	30	9+7+11	804			

Il Semester-First year					
Elective subjects					
SUBJECTS	ECTS	Hours	Total		
The modern mechanical materials	4	2+1+1	120		
Engineering logistics	4	2+1+1	120		

IIISemester-Second year					
Mandatory subjects					
SUBJECTS	ECTS	Hours	Total		
Thermodynamics	8	3+2+2	216		
Strength of materials	8	3+2+2	216		
Technical Mechanics II (kinematics, dynamics, oscillations)	6	2+2+1	156		
Elective subject from the faculty 4	4	2+1+1	120		
Elective subject from the faculty 5	4	2+1+1	120		
Total:	30	12+8+7	828		

IIISemester-Second year					
Elective subjects					
SUBJECTS	ECTS	Hours	Total		
Corrosion and corrosion protection	4	2+1+1	120		
Probability and statistics	4	2+1+1	120		
Ergonomics	4	2+1+1	120		
Industrial Management	4	2+1+1	120		

IVSemester-Second year					
Mandatory subjects					
SUBJECTS	ECTS	Hours	Total		
Machine elements	8	3+2+2	216		
Fluid Mechanics	6	2+2+1	156		
Numerical methods	6	2+2+1	156		
Elective subject from the faculty 6	4	2+1+1	120		
Elective subject from the University	6	0+0+4	156		
Total:	30	9+7+9	804		

IVSemester-Second year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Measurement and measuring instruments	4	2+1+1	120
Heat transfer	4	2+1+1	120

V Semester- Third year			
Mandatory subjects			
SUBJEKTS	ECTS	Hours	Total
Management Information Systems	8	3+2+2	216
Internal combustion engines	8	3+2+2	216
Human resource management	6	2+2+1	156
Elective subject from the faculty 7	4	2+1+1	120
Elective subject from the faculty 8	4	2+1+1	120
Total:	30	11+8+7	828

V Semester- Third year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Plants and fuel	4	2+1+1	120
Basics of thermo-technical machines	4	2+1+1	120
Engineering economics	4	2+1+1	120
City public transport	4	2+1+1	120

VI Semester- Third year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Theory of movement of motor vehicles	8	3+2+2	216
Operations Research	6	2+2+1	156
Supply chain management	6	2+2+1	156
Elective subject from the faculty 9	4	2+1+1	120
Elective university subject 3	6	2+2+1	156
Total:	30	11+9+6	804

VI Semester- Third year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Project Management	4	2+1+1	120
Dynamics of motor vehicles	4	2+1+1	120

VII Semester- fourth year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Maintenance of motor vehicles	8	3+2+2	216
Quantitative methods in business decision	8	3+2+2	216
making	0	57272	210
Modern transport technologies	6	2+2+1	156
Elective subject from the faculty 10	4	2+1+1	120
Elective subject from the faculty 11	4	2+1+1	120
Total:	30	11+8+7	828

VII Semester- fourth year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Electronic data exchange	4	2+1+1	120
Traffic safety	4	2+1+1	120
Transport in containers	4	2+1+1	120
Product Life Cycle Management	4	2+1+1	120

VIIISemester- fourth year			
Mandatory subjects			
SUBJECTS	ECTS	Hours	Total
Quality Management	6	2+2+1	156
Occupational Safety and Health	6	2+2+1	156
Elective subject from the faculty 12	4	2+1+1	120
Elective subject from the University 4	6	2+2+1	156
Diploma Thesis	8	0+0+8	192
Total:	30	8+7+12	780

VIII Semester- fourth year			
Elective subjects			
SUBJECTS	ECTS	Hours	Total
Intelligent transport systems	4	2+1+1	120
Marketing Management	4	2+1+1	120

FACULTY OF MECHANICAL ENGINEERING – STADY PROGRAM: TRANSPORT, ORGANIZATION AND LOGISTICS

A	ex No.3	TRANSPORT, OR	UANI		LU	313110	0	
Ann	lex INO.5	Program of the Cou	rse - fir	st cycle studies	2			
		1 rogram of the Cou	1 SC - 111	st cycle studies	,			
1.	Title of t	he Course	Μ	athematics I				
2.	Code		2F	T100112				
3.	Study Pr	ogram	Pr	oduction Engine	eerin	g /Trans	port, Orga	nization
	·	0		d Logistics		C		
4.	Organiz	er of the study progra	m Ur	niversity Goce I	Delce	ev - Stip		
	(unit or i	institute, Faculty,	Fa	culty of Compu	ter S	cience-	Vinica	
	departm	ent)	De	epartment of Ma	athen	natics an	d Statistics	8
5.	Cycle (fi	rst, second and third	Fi	rst cycle				
	cycle)							
6.	Academi	c year / semester	20	12-2013/first	7.	Numb	er of	8
						credits	S	
8.	Professo	r (s)	Pr	of. Jordan Ziva	novi	k,PhD/		
			Pr	of. Martin Luka	revsl	ki, PhD		
9.	-	nents for enrollment	no					
	the Cour							
10.		s of the curriculum (c						
	mathema	tics knowledge and int	roductio	on to higher mat	them	atics		
11.		of the course program						
		c definition of the real						· •
		d sets. Absolute value						
		ns with matrices. Some						
	-	ents. Calculating the ir					0	
		Collection of vectors. I	1.	•				•
		ector and mixed produc						
		lines and planes. Real s						
		ous sequences. Operati		-		-	-	ences
		mited grow in absolute			-	-		1
		ences. Kauchy's sequer						
		basic concepts. Exam						
		ry functions. Limits an ulation. Basic theorem		•				
		mes. Second derivative				-		-
		ion of graphs. Higher-						
12.		g methods:			nere	<u>intials.</u> 1	<i>ayi01</i> 5 101	mula.
12.	-	laboratory exercises, r	numeric	al exercises e-l	earni	ng sem	inar work	
		x, consultation	iumene	ur exercises, e i	curm	ing, sem	inar work,	
		., • • • • • • • • • • • • • • • • • • •						
13.		ailable time		216 hours		1		
14.		tion of available time		3+2+2 / per			21	
15.		f teaching / learning	15.1.	lectures / theo		cal -	3 hours	
	activities			contact teach	ıng,			
			15.0	e-teaching			2 h	
			15.2.	theoretical an	a pr	actical	2 hours	
				exercises,				

				e-exams, preparation independent seminar work		
16.	Other forms of activities16.1.		Project tasks		1 hours	
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		hours
17.	Metho	od of assessment				1
	17.1.	Tests / oral exams			70]	points
	17.2.	Seminars (paper / proj and/or oral)	ject - p	resentation: written	10 p	points
	17.3.	Activity and participat	ion		20 p	oints
18.	Asses	sment Criteria (points /	ι	up 50 points	5(fiv	ve) (F)
	score)		5	51 to 60 points	6(six	x) (E)
			(61 to 70 points	7 (se	even) (D)
			7	71 to 80 points	8 (ei	ght) (C)
			8	81 to 90 points	9 (ni	ne) (B)
				91 to 100 points		en) (A)
19.	-	ture requirement and		50% success from all pr		
	passir	ng the final exam	-	points from two mid-ter		
				paper, attendance of lect	tures a	and exercises
20.	Langu	age of teaching / study	1	Macedonian		
21.	Metho of tea	od of monitoring the qua ching	ality S	Self-evaluation		

	Requ	ired literature			
	No.	Author	Title	Publisher	Year
22.1.	1.	Glin Dzejms	Matematika na moderen inzhenering	Translation of the Government of R.Macedonia	2009
	2.	Zivanovik and assistants	Predavanja I vezbi po Matematika 1	e-ucenje	2010
	3.	B.Trpenovski, N.Celakoski, G.Cupona	Visa matematika I-IV	Prosvetno delo, Skopje	1995
	Addi	tional literature	·	·	
	No.	Author	Title	Publisher	Year
22.2.	1.	Milan Merkle	Matematicka analiza	Racunarski Fakultet - Beograd	2007
	2.	Ivan Slapnicar http://www.fesb.hr/mat1	Matematika 1	Fakultet, Elektr.strojars tva I	2002

			brodogradnje, Split	
	3.			

Ann	nex No.3	Program of the Course	- first cycle studies	5					
1.	Title of t	he Course	Mechanical mate	rials					
2.	Code		2MF100112						
3.	Study Pr	ogram	Production engine and Logistics	ering	g/Transport Orga	nization			
4.	0	er of the study program institute, Faculty, ent)	University Goce I Faculty of Compu		-				
5.	-	rst, second and third	First cycle						
6.	Academi	c year / semester	First/I semester	7.	Number of credits	8			
8.	Professo	× /	Slavco Cvetkov, F	PhD,	Associate Profes	sor			
9.	Require the Cour	nents for enrollment	No						
11.	Content of the course program: 1. Introduction to the materials								
	2. Di	vision and structure of me	tals						
	3. Al	loys and state diagram							
	4. Ste	4. Steels: Obtaining and labelling							
	5. Ca	5. Carbon steels: structural and tool steels							
	6. Alloy steel: structural and tool steels								
		loy steel: structural and to							
	7. He	loy steel: structural and to							
	7. He 8. Su	loy steel: structural and to eat treatment of steels	ol steels						
	7. He 8. Su 9. Ca	loy steel: structural and to eat treatment of steels rface hardening of steels	ol steels eable iron						
	7. He 8. Su 9. Ca 10. No	loy steel: structural and to eat treatment of steels rface hardening of steels ast iron: gray iron and mall	ol steels eable iron alloys						

12.	Learning methods: -Teaching, exercises, projects as	ssionm	ent			
	reaching, exercises, projects as	55151111				
13.	Total available time		216			
14.	Distribution of available time		3+2+2 / per we			
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	3	
	activities		contact teaching,			
		15.2.	e-teaching theoretical and prac	tical	2	
		13.2.	exercises,	ucai	2	
			e-exams, preparation	n of		
			independent semina			
			work			
16.	Other forms of activities	16.1.	Project tasks		1 hours	
		16.2.	Individual tasks		1 hours	
		16.3.	Home learning		/ hours	
17.	Method of assessment					
	17.1. Tests / oral exams			70	points	
		ject - p	- presentation: written 10		points	
	and/or oral)					
	17.3. Activity and participat			20 p	oints	
18.	Assessment Criteria (points /		up 50 points	<u>``</u>	re) (F)	
	score)		51 to 60 points		(E)	
			61 to 70 points	-	ven) (D)	
			71 to 80 points		ght) (C)	
			81 to 90 points	· · ·	ne) (B)	
10	Signature requirement and		91 to 100 points		en) (A)	
19.	Signature requirement and passing the final exam		60% success from all pr pointsfrom two mid-teri			
	passing me mai exam		paper, attendance of lec			
20.	Language of teaching / study		Macedonian			
21.	Method of monitoring the qua		Self-evaluation			
21 •	of teaching	iiiiy				
L	0					

22.	Literature										
		Required literature									
	22.1.	No. Author		Title	Publisher	Year					
		1.	Angel Tasevski, PhD Vladan Andonovic, MsC	Mechanical materials	UGD - Stip	2011					
		2.	Angel Tasevski, PhD Vladan Andonovic, MsC	Mechanical materials estimation	UGD - Stip	2011					
		3.									

	Additional literature								
	No.	Author	Title		Publisher	Year			
22.2.	1.								
	2.								
	3.								

Ann	ex No.3 Program of the Course - f	ïrst cycle studies					
1.	Title of the Course	Computer Science					
2.	Code	2FI110112					
3.	Study program	Production engineer	ing/	Transport Organiz	ation and		
		Logistics					
4.	Organizer of the study program	University Goce De		-			
	(unit or institute, Faculty,	Faculty of Compute	r Sci	ence-Vinica			
-	department)						
5.	Cycle (first, second, or third study cycle)	First study cycle					
6.	Academic year / semester	2012-2013 / first	7.	Number of credits	6		
8.	Professor (s)	Assi. Professor Zora	an Zo	dravev, PhD			
9.	Requirements for enrollment the Course	No					
	 Contents of the course program: Introduction to computer science Computer hardware: introduction Computer hardware: Peripheral Computer software: applicative Computer software: system soft Computer software: web service Computer networks: LAN, MA 	on, types, architecture ls, Computer Memory, e software, open source tware, programming la es, online document st	of co digi e soft angu corag	omputer systems, tal identification; tware licenses; ages; e and editing syste	ems,		
	components, connectivity;Computer networks: Internet, in						
	- Computer security: a concept, a cryptography;	a security risk, malicio	us so	oftware, unauthori	zed access,		

	-	Information systems: introdu	iction,	types, ERP, CRM, HR, S	CM;	
	-	Content Management Syster	ns CM	S: DMS, DAMS, WCM,	ECP, E	ERS;
	-	Databases: fundamentals, ty	nes lise	<u>a</u>		
		Dutubuses. fundamentais, ty	pes, us	~		
10	T	• 41 1 T (T 1		· · · · ·	• 1 1	1.
12.		ting methods: Lectures, Labo ts,consultations.	ratory	exercises, e-learning, indi	vidual	and team
13.	1 5	available time		156 hours		
13.		bution of available time		2+2+1		
15.		s of teaching / learning	15.1.	lectures / theoretical -		2
15.	activi	8	10.11	contact teaching, e-		-
				teaching		
			15.2.		cal	2
				exercises, e-exams,		
				preparation of		
				independent seminar	work	
16.	Other activit	r forms of studying	16.1.	Project tasks		
	activi		16.2.	2. Individual tasks		1
			16.3.	Home learning		
17.	Metho	od of assessment				I
	17.1.	Tests / oral exams			70 po	oints
	17.2.	Seminars (paper / project	- prese	entation: written	10 po	oints
	17.0	and/or oral)			20	• .
	17.3.	Activity and participation			20 po	
18.	Asses	sment Criteria (points / scor	· ·	Up 50 points		e) (F)
				51 to 60 points	6 (six	, , ,
				51 to 70 points 71 to 80 points		ven) (D)
				31 to 90 points		ght) (C) ne) (B)
				91 to 100 points		(B) (B) (A)
19.	Signa	ture requirement and passin		50% of pre-exam activitie	· ·	, , ,
17.	0	nal exam		from 2 midterm exams, pr		
				attending of lectures and c		
20.	Lang	age of teaching / study		Macedonian		
21.	Meth	od of monitoring the quality	of S	Self-evaluation		
	teachi					

Ann	nex No.3	Program of the Course ·	- first/second/third cycle studies
1.	Title of t	he Course	Basics of Physics

2.	Code	2F	FP120512							
3.	Study Program	Pr	oduction Engine	erin	g					
4.	Organizer of the study program	m U	niversity Goce D	Pelce	ev					
	(unit or institute, Faculty,		culty of mechan	ical	enginee	ering				
	department)									
5.	Cycle (first, second and third cycle)	Fi	rst cycle							
6.	Academic year / semester	1/	1	7.	Numb		4			
					credits	5				
8.	Professor (s)		of. Todor Delipe	etrov	, PhD					
9.	Requirements for enrollment t Course	the en	rolled semester							
10.	Purposes of the curriculum (co	ompete	ncies):							
	Students are introduced to the ba			of ph	ysics (N	Newton's la	aws,			
	Hooke's law), elasticity and plas	sticity o	of bodies							
11.	Content of the course program	1:								
	Test methods in physics, structu									
	comparative body trajectory and									
	(time dilation and length contrac	,				-				
	Newton's first law, mass, Newto									
	and power. Elasticity and structure of bodies: voltage and relative deformation,									
	Hooke's law. Oscillations, alignment fluctuations. Fluid mechanics. Statics gases. Fluid dynamics. Wave motion. Sound and sound sources.									
		sound a	ind sound source	S.						
12.	Learning methods:									
12.	Learning methods: Lectures, exercises (numerical a	nd prac	tical), papers and		me lear	ning				
13.	Lectures, exercises (numerical a Total available time	nd prac	216 hours	d ho		ning				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time		216 hours 2 + 1 + 1 / p	d ho ber w	veek					
13.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	nd prac	216 hours 2 + 1 + 1 / p lectures / theo	d ho er w reti	veek	ning				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time		216 hours 2 + 1 + 1 / p lectures / theo contact teaching	d ho er w reti	veek					
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching	d ho er w retiong,	veek	2				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning		216 hours 2 + 1 + 1 / p lectures / theoretical and	d ho ber w retiong, d	veek cal -					
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exercise	d ho er w retiong, d cises	veek cal -	2				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching e-teaching theoretical and practical exerce e-exams, prepa	d ho ber w retion ng, d cises arat	veek cal -	2				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so	d ho ber w retion ng, d cises arat	veek cal -	2				
13. 14.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching e-teaching theoretical and practical exerce e-exams, prepa	d ho ber w retion ng, d cises arat	veek cal -	2				
<u>13.</u> <u>14.</u> 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities	15.1.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exerce e-exams, prepa- independent so work	d ho eer w retiong, d cises arat emin	veek cal -	2				
<u>13.</u> <u>14.</u> 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities	15.1. 15.2. 16.1.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	d ho er w retiong, d cises arat emin ks	veek cal -	2				
13. 14. 15. 16.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theo contact teaching theoretical and practical exerce e-exams, prepa- independent so work Project tasks	d ho er w retiong, d cises arat emin ks	veek cal -	2				
13. 14. 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	d ho er w retiong, d cises arat emin ks	veek cal -	2				
13. 14. 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task	d ho er w retiong, d cises arat emin ks	veek cal -	2 1 1				
<u>13.</u> <u>14.</u> 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	d ho er w retiong, d cises arat emin ks g	veek cal -	2				
<u>13.</u> <u>14.</u> 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral)	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	d ho er w retiong, d cises arat emin ks g	<u>veek</u> cal - s, tion of nar 70 g 10 g	2 1 1 1 points				
13. 14. 15. 16.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral) 17.3. Activity and participati	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical e-teaching theoretical and practical exerce e-exams, preparindependent so work Project tasks Individual task Home learning	d ho er w retiong, d cises arat emin ks g	veek cal -	2 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
13. 14. 15.	Lectures, exercises (numerical a Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral)	15.1. 15.2. 16.1. 16.2. 16.3. ect - pr	216 hours 2 + 1 + 1 / p lectures / theoretical and practical exerce e-exams, preparindependent se work Project tasks Individual task	d ho er w retiong, d cises arat emin ks g	<u>veek</u> cal - s, tion of nar 70 g 10 g	2 1 1 1 points				

				71 to	o 80 points	8	(eight)	(C)]
				81 to	o 90 points	9	(nine)	(B)]
					o 100 points	10	(ten)	(A)	
19.	0	-	irement and	60% success from all activities before exam					
	passing	g the fin	al exam	i.e. 42 points from two mid-term exams,					
					inar paper, attendar	nce of	lectures an	d	
					cises				_
20.	00 0 1			Mac	edonian				
21.	Method of monitoring the quality			Self-	-evaluation]
	of teacl	ning							
22.	Litera	ture							
		Required literature							
		No.	Author		Title		Publish	er	Year
	22.1.	1.	Todor Delipetrov		Physics 1		RGF		2003
		2.							
		3.							
		Addit	ional literature						
		No.	Author		Title		Publish	er	Year
	22.2.	1.	Lj. Petkovski		General physics		UKIM		1995
		2.	Z. Stojanov		General physics, 1	oook	UKIM		1985
		3.							

Ann	nex No.3	Program of the Course	- first/second/thir	d cy	cle studies	
1.	Title of t	he Course	Physics 2			
2.	Code		2FP101212			
3.	Study Pr	ogram				
4.	Organize	er of the study program	University Goce	Delc	ev	
	(unit or i	institute, Faculty,	Faculty of mecha	nical	l engineering	
	departm	ent)				
5.			First cycle			
6.	Academi	ic year / semester	1/2	7.	Number of credits	4
8.	Professo	r (s)	Prof. Todor Delip	oetro	v, PhD	
9.	Requirer Course	ments for enrollment the	Student has enrol	led c	current year	
10.			,	of el	lectromagnetism,	optics,
11.	Content	of the course program:				

12.	Electros Joule's I susceptil electrica thin lens lattice. A radioacti Learnin Lectures	istribution of available time 2 + 2 + 1 / per week										
13.												
14.				· · _ ·		1						
15.			ing / learning	15.1		ctures / theoretica	l -	2				
	activitie	S				ntact teaching,						
			150		teaching		2		4			
				15.2		eoretical and		2				
						actical exercises, exams, preparatio	mof					
						dependent semina						
					ork	11						
16.	Other f	orms of	activities	16.1					-			
				16.2				1		-		
	1				. H	Home learning						
17.	Method	of asse	essment				I			-		
	17.1.	Fests / o	oral exams		70 po			oints		1		
		Seminal and/or o		ect - J	presentation: written 10 pc			oints				
			and participati	on			20 pc	oints		1		
18.			iteria (points /		up 5	0 points	5	(five)	(F)	-		
-	score)			F	-	o 60 points	6	(six)	(E)	1		
	-			F		o 70 points	7	(seven)	(D)	7		
						80 points	8	(eight)	(C)			
					81 to	90 points	9	(nine)	(B)			
					91 to	o 100 points	10	(ten)	(A)			
19.	0	-	irement and			success from all a						
	passing	the fina	al exam			2 points from two						
					seminar paper, attendance of lectures and							
20	Language of teaching / study					cises				_		
20.	0	0	2.			edonian				_		
21.	Method of teach		nitoring the qua	lity	Self-	evaluation						
22.	Literat	ure										
-			red literature									
	22.1.	-				Title		Publish	er	Year		
	22.1.	No.	Author			Title		Publish	er			

	1.	M. Delipetrev	Physics 2	UGD	2013			
		B. Doneva						
	2.							
	3.							
	Additional literature							
	No.	Author	Title	Publisher	Year			
22.2.	1.	Z. Stojanov	General physics, book 2	UKIM	1985			
	2.							
	3.							

Ann	ex No.3	Program of the course-	first cycle studies				
1.	Title of	the Course	Electrotechnics a	and]	Electronics		
2.	Code		2ET110012				
3.	Study p	rogram	Production Engine	eerir	ng /		
			Transport, Organi		Ŭ		
4.		er of the study program	University "Goce				
		institute, Faculty,	Faculty of Mecha	nical	l Engineering-Vinio	ca	
	departn						
5.		irst, second, or third	1 st cycle				
	study cy	rcle)					
6.	Academ	ic year / semester	1 st / 1 st	7.	Number of	4	
0		EK1S credits					
8.	Professo		enrolled 1 st semes		Assistant Professor		
9.	Requirements for enrollment of the courseenrolled 1st semester						
10.		sc s of the curriculum (com	notonoios)				
10.	-	tion to basic principles of e		elect	ronics.		
11.		s of the course program:					
		Electric Current - Intensity,	Current Field, Dens	sity			
		Electric Voltage and Potenti		2			
	3. E	Basic Laws - Joul's, Ohm's,	I & II Kirchhoff's				
	4. N	Aagnetic Flux, Magnetic Fi	eld andMagnetism				
	5. N	Magnetic Induction, Ampere	e's Law and Magne	tic C	ircuit		
	6. Electrical Measurements						
	7. S	semiconductors					
	8. I	Diodes					

	9	BJT Transistors				
	10	. MOSFET Transistors				
	11	. Thyristors				
	12	. Operational Amplifiers				
12.	Learn	ing methods: Lectures, n	umerio	cal exercises, individual	and te	eam projects,
	home	work.				
13.		available time		120		
14.		bution of available time	1	2+1+1		
15.		s of teaching / learning	15.1.		l -	2
	activi	ties		contact teaching, e-		
			15.0	teaching	<i>·</i> · · · ·	1
			15.2.	1	etical	1
				exercises, e-exams, preparation of		
				independent semina	r	
				work	i II	
16.				Project tasks		
	activities		16.2.	2. Individual tasks		1
			16.3.	3. Home learning		
17.	Meth	od of assessment				
	17.1.	Tests / oral exams			70 pc	oints
	17.2.	Seminars (paper / proj	ect - n	presentation: written	10 pc	
		and/or oral)	Per la		To points	
	17.3.	Activity and participati	on		20 pc	oints
18.	Asses	sment Criteria (points /		Up 50 points	5 (fiv	ve) (F)
	score)	· =		51 to 60 points	6 (siz	x) (E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points	8 (eig	ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points		en) (A)
19.	0	ture requirement and		60% of pre-exam activi		
	passir	ig the final exam		points from 2 midterm		1 0
20	Ŧ			and attending of lecture	s and	discussions
20 .	0	age of teaching / study		Macedonian		
21.		od of monitoring the qua	lity	Self-evaluation		
	of tea	ching				

22.	22. Literature									
	Required literature									
		Orde	Author	Title	Publisher	Year				
	22.1.	r								
		No.								
		1.	M. Popnikolova-Radevska	Electrotechnics	TF, Bitola	2004				

	2.	M. Kamilovski	Electronics 1	UKIM, Skopje	2005
	Additi	onal Literature			
	Orde	Author	Title	Publisher	Year
22.2	r				
	No.				
	1.				

Ann	ex No.3	Program of the Course	- first cycle studies	5		
1.		he Course	Casting technolo	gy		
2.	Code		2MF101812			
3.	Study Pr	ogram	Production engine and Logistics	eerin	g/Transport Orga	nization
4.	Organiz	er of the study program	University Goce I	Delce	ev-Stip,	
	(unit or i departm	institute, Faculty, ent)	Faculty of Mecha	nical	Engineering- Vi	nica
5.	Cycle (fi cycle)	rst, second and third	First cycle			
6.	Academi	ic year / semester	First / I semester	7.	Number of credits	4
8.	Professo	r (s)	Slavco Cvetkov, I	PhD,	Assi.Professor	
9.	Require the Cour	ments for enrollment rse	No			
11.		of the course program: atroduction to the casting				
11.						
		asting materials				
		asting metalurgy				
		and casting				
		entrifugal casting				
		recise casting				
		acuum casting				
	8. Casting under pressure					
	9. Heaters for melting					
		ools for casting				
	11. C	onstruction tools for castir	ng			

	12	. Defects in casting					
12.	Learn	ing methods: – Teaching, exercis	ses, pro	ojects assignment			
13.		available time		120	1		
14.		bution of available time	1 = 1	2 + 1 + 1 / per wee		2	
15.		s of teaching / learning	15.1.		-	2	
	activit	lies		contact teaching, e-teaching			
			15.2.	0	tical	1	
			13.2.	exercises,	iicai	1	
				e-exams, preparation	n of		
				independent semina			
				work			
16.	Other	forms of activities	16.1.	Project tasks		/ hours	
				Individual tasks		1 hours	
			16.3.	. Home learning		/ hours	
17.		od of assessment					
	17.1.	Tests / oral exams			70	points	
	17.2.	Seminars (paper / proj and/or oral)	ject - p	presentation: written	10 p	points	
	17.3. Activity and participation					20 points	
18.	Assess	sment Criteria (points /	1	up 50 points	5(fiv	re) (F)	
	score)	_		51 to 60 points	6(six	(E)	
				61 to 70 points	-	ven) (D)	
				71 to 80 points		ght) (C)	
				81 to 90 points	9 (nine) (B)		
10	C.	· · · ·		91 to 100 points	(en) (A)	
19.		ture requirement and		60% success from all pr			
	passin	g the final exam		pointsfrom two mid-terr attendance of lectures a			
20.	Lang	age of teaching / study		Macedonian		101505	
21.	-	od of monitoring the qua		Self-evaluation			
#1 •	of tea	e i	iiity)				

	Required literature							
	No.	Author	Title	Publisher	Year			
22.1.	1.	Zoran Anisic	Production technologies	Visa Tehnicka Skola	2003			

	3.							
	Addi	Additional literature						
	No.	Author	Title	Publisher	Year			
22.2	1.							
	2.							
	3.							

Ann	nex No.3	Program of the Course	e - first cycle studies	3			
1	T:41 f		-				
<u>1.</u> 2.	Code	the Course	Mathematics II				
			2FI100412 Production Engineering /Transport,				
3.	Study P	rogram	e e		0 1		
4.	Orgoni	er of the study program	~ ~	Organization and Logistics University Goce Delcev - Stip			
4.	0	institute, Faculty,			ev - Sup engineering-Vinic	0	
	departn		Faculty of meena	incai	engineering-vinic	a	
5.		irst, second and third	First cycle				
6.		ademic year / semesterFirst/II7.Number of credits					
8.	Professe	or (s)	Prof. Martin Luka	arevs	ski PhD /		
			Prof. Jordan Ziva	novi	kPhD		
9.	Require	ements for enrollment	llment Enrollment of the first cycle study program				
	the Cou	rse					
11.	 Knowledge and understanding of the basic mathematical concepts and theories, knowledge of ICT in mathematics, flexible use of knowledge in practice. Content of the course program: The concept of Integral Calculus: Indefinite integral – integration by 						
		ubstitution and integration Definite integral-concept, p	• •		0	,	
 2. Infinite series: Criteria for convergence, alternating series, Conditional absolute convergence. Sequences and series of functions. Power ser of convergence. 							
	s	3. Multivariate Calculus: definition, properties and graphics of functions with several variables; Partial derivatives; Maximum and minimum values; The total differential.					
	4. I	Multiple integrals.					
	 5. Introduction of differential equations: Terminology and notation; A first-order differential equation for the exponential function; First-order linear differential equations and other types of first-order differential equations. 						

 Lectures, e-learning, individual and team projects individual and team projects individual and team projects Consultations. Total available time 216 Total available time 3+2+2 / per week Forms of teaching / learning activities IS. Forms of teaching / learning activities IS. Forms of teaching / learning activities IS. Iterretical and practical contact teaching, e-teaching = theoretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical contact teaching Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, preparation of independent seminar work Iterretical and practical exercises, e-e-exams, propert seminar work Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, propertical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-exams, project tasks I hours Iterretical and practical exercises, e-e-examastivities or minimum 42	12.	Learn	ing methods:					
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 individual and team projects individual and team projects Consultations. 13. Total available time Consultations. 14. Distribution of available time 3+2+2 / per week 3+2+2 / per week 15. Forms of teaching / learning activities 15.1. lectures / theoretical - contact teaching, e-teaching 15.2. theoretical and practical exercises, e-exams, preparation of independent seminar work 16.2. Individual tasks 1 hours 16.3. Home learning hours 17.1. Tests / oral exams 16.3. Home learning hours 17.4. Seminars (paper / project - presentation: written and/or oral) 17.3. Activity and participation 17.3. Activity and participation 20 points 11.0 points 61 to 70 points 7 (six) (E) 15 to 60 points 6(six) (E) 16 to 60 points 16 to 90 points 10 (cm) (A) 10 (cm) (A) 19. Signature requirement and passing the final exam	Í							
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17. Method of assessment 17.1. Tests / oral exams 17.1. Tests / oral exams 17.1. Tests / oral exams 17.2. Seminars (paper / project - presentation: written and/or oral) 17.3. Activity and participation 17.3. Activity and participation 18. Assessment Criteria (points / score) 9. 51 to 60 points 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions				16.2.	Individual tasks		1 hours	
17.1.Tests / oral exams70 points17.2.Seminars (paper / project - presentation: written and/or oral)10 points17.3.Activity and participation20 points18.Assessment Criteria (points / score)up 50 points5(five) (F)51 to 60 points6(six) (E)61 to 70 points7 (seven) (D)71 to 80 points9 (nine) (B)91 to 100 points10 (ten) (A)19.Signature requirement and passing the final exam60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions				16.3.	Home learning		hours	
17.1. Tests / oral exams 70 points 17.2. Seminars (paper / project - presentation: written and/or oral) 10 points 17.3. Activity and participation 20 points 18. Assessment Criteria (points / score) up 50 points 5(five) (F) 5 51 to 60 points 6(six) (E) 61 to 70 points 7 (seven) (D) 71 to 80 points 8 (eight) (C) 81 to 90 points 9 (nine) (B) 91 to 100 points 10 (ten) (A) 19. Signature requirement and passing the final exam 60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activitie and attending of lectures and discussions	17.	Metho	od of assessment				<u> </u>	
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passing the final exampoints from 2 midterm exams, project activitie and attending of lectures and discussions	10	Signat	una naguinament and		4			
and attending of lectures and discussions	17.	0	-		-			
		Lapoin	B vire mini exum	-			1 5	
20. Language of teaching / study Macedonian	20.	Langu	age of teaching / study		Macedonian	-		
21. Method of monitoring the quality Self-evaluation	21.	0	e e .	lity S	Self-evaluation			
of teaching			e i	~				

22.	Literat	ure					
	22.1.	Required literature					
		No.	Author	Title	Publisher	Year	
		1.	Glyn James	Modern engineering	Translation of	2009	
				mathematics	the		

				Government of R.Macedonia					
	2.	Milan Merkle	Matematicka analiza	Racunarski Fakultet - Beograd	2007				
	3.	Tatjana Atanasova Pacemska	Matematika 2	Avtorizirani predavanja	2011				
	Additional literature								
	No.	Author	Title	Publisher					
22.2.	1.	Nikita Sekutkovski	Matematicka analiza 1	Prosvetno delo - Skopje	2008				
	2.	Boro Piperevski	Matematika 2	FEIT - Skopje	2008				
	3.								

Ann	ex No.3 Program of the Course	- first cycle studies	5				
1.	Title of the Course	Engineering grap	phics	5			
2.	Code	2FP100912	2FP100912				
3.	Study Program	Production Engine	eerin	g /Transport,			
		Organization and	Logi	stics			
4.	Organizer of the study program	University Goce I	Delce	ev-Stip			
	(unit or institute, Faculty,	Faculty of Mecha	nical	Engineering - Vi	nica		
	department)						
5.	Cycle (first, second and third	First cycle					
	cycle)	-					
6.	Academic year / semester	First / second7.Number of6					
		semester		credits			
8.	Professor (s)	Assi. Prof. Slavco	Cve	etkov, Ph.D.			
9.	Requirements for enrollment	None					
	the Course						
10.	Purposes of the curriculum (comp						
	Training in drawing and reading tec	hnical drawings of	macl	hine parts. Trainir	ig in		
	drawing machine parts in the progra	m package Auto C	AD.				
11.	Content of the course program:						
	Technical drawing. Views - basic, s				Formats,		
	naming and sizes of technical drawi						
	Technical Letter. Sections and types						
	intersections. Labeling and types of						
	position tolerance. Designation of the						
	on machined parts. Listing of the th						
	Formation of the mechanical drawing						
	orthogonal view. Formation of the r	nechanical drawing	g wor	kshop part of asse	embled		
	drawing. Technical Documentation						

12.		Learning methods: Lectures, exercises, individual works, home learning, consultations.							
13.	Total	available time			156 hours				
14.		bution of available time			2+2+1 / per week				
15.	Form: activit	s of teaching / learning ties	15.1				2 hours		
			15.2				2 hours		
16.	Other	forms of activities	16.1	. P	roject tasks				
			16.2	. Iı	ndividual tasks		1 hours		
			16.3	. H	lome learning				
17.	Metho	od of assessment							
	17.1.	Tests / oral exams				70 points			
	17.2.	Seminars (paper / proj and/or oral)	ect -]	presentation: written 10 points			oints		
	17.3.	Activity and participati	ion			20 po	oints		
18.	Assess	sment Criteria (points /		up 5	50 points	5(fiv	e) (F)		
	score)		_		o 60 points	6(six			
			-		o 70 points	· · ·	ven) (D)		
			-		o 80 points		(C)		
			-		o 90 points o 100 points	ne) (B) en) (A)			
19.	Signat	ture requirement and			of pre-exam activit				
17.	passing the final exam				attending of lectures	exams,	project activities		
20.	Lang	age of teaching / study			zedonian	s anu (115Cu5510115		
20.	0	od of monitoring the qua	lity		2-evaluation				

	Requ	ired literature			
	No.	Author	Title	Publisher	Year
22.1.	1.	Risto Taškovski	Engineering Graphics	Mechanical faculty, Skopje	2008
	2.				
	3.				
22.2.	Addi	tional literature			

No.	Author	Title	Publisher	Year
1.				
2.				
3.				

Ann	ex No.3 Program of the Co	urse - f	irst cycle studi	ies			
1.	Title of the Course	Te	echnical Mecha	anics	s I (statics)		
2.	Code	2N	/IF100212				
3.	Study Program	Pr	oduction Engin	eerin	ng /Transport, Or	gani	zation
		an	and Logistics				
4.	Organizer of the study program	m Uı	niversity "Goce	Del	cev"- Stip.		
	(unit or institute, Faculty,	Fa	Faculty of Mechanical Engineering -Vinica				
	department)						
5.	Cycle (first, second and third	Fi	rst cycle				
	cycle)			1			1
6.	Academic year / semester	Fi	rst / second	7.	Number of cre	dits	6
8.	Professor (s)		ssi. Prof. Slavco	o Cv	etkov, Ph.D		
9.	Requirements for enrollment 1	the No)				
	Course						
10.	Purposes of the curriculum (co	-				ics:	forces,
	moments, carriers, equilibrium of	of bodies	s, friction, cent	re of	gravity;		
	~						
11.	Content of the course program		•.•				
	1.System of forces acting in the	plane, c	omposition and	l dec	omposition of fo	rces	acting
	at a point;	.	2 1				
	2.Momentof force about a point,	-					
	3.System of forces attacking par			_			
	4. Graphic alignment of forces,			,			
	5. Planar carriers, transverse and 6.Simple beam loaded with cond						
	7.Simple beam loaded with a co			tor	ves: Console:		
	8.Beam with overhangs; Gerber			3 1010	es, console,		
	9. Statically determined framew			rder	· ·		
	10.Statics in space; Spatial carrie		Jords, Daniec gl	uuu	· • •		
	11.Sliding friction, rolling friction		on of the rope:				
	12.Centre of gravity line, surface				ms;		
12.	Learning methods:		<u>,</u> ,		,		
-	Lectures, Laboratory exercises,	e-learnii	ng, individual a	nd te	am projects, con	sult	ations.
13.	Total available time		156 hours		1 5 / 5		
14.	Distribution of available time		2 + 2 + 1/per	week			
15.	Forms of teaching / learning	15.1.	lectures / theo			S	
	activities		contact teachi	ng,			
			e-teaching	-			
		15.2.	theoretical and	d pra	ctical 2hour	S	
			exercises,	-			
			e-exams, prep	arati	on of		
			independent s	emir	ar work		

16.	Other	forms of	f activities	16.1.	Project tasks				
				16.2.	Individual tasks		1 hour		
				16.3.	Home learning				
17.	M-4h	1 . 6			8				
17.	17.1.	od of asse	oral exams			70	70		
	17.1.			ot n	econtotion, whitton	10			
	17.2.	and/or		eet - pi	resentation: written	10			
	17.3.	Activity	and participation	on		20			
18.	Assess	sment Cr	iteria (points /		to 50 points	5(fiv	e) (F)		
	score)				from 51 to 60 points	6(six	(E)		
				1	from 61 to 70 points	-	ven) (D)		
					from 71 to 80 points		ght) (C)		
					from 81 to 90 points		ne) (B)		
					from 91 to 100 points	· · · · · · · · · · · · · · · · · · ·	en) (A)		
19.	-	-	irement and		60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activities and				
	passin	ng the fin	al exam					nd	
20	T				attending of lectures and	d discu	ssions		
20.	_	-	eaching / study		Macedonian				
21.	Metho of tead		nitoring the qual	ity	Self-evaluation				
22.	Litera	0							
		Requir	ed literature						
		No.	Author]	Fitle	Publ	isher	Year	
		1.	Simeon]	Fechnical mechanics	UGE	D-Stip	2012	
			Simeonov	1	(peer reviewed script)				
	22.1.	2.	Z.Petrevski,		Fasks from Statics		hanical	2008	
			V. Gavrilovski	,		faculty Skopje			
			M. Mickovski						
		3.	R.Josifova	ĺ.	Fechnical mechanics 1	Principal -		1001	
		Additional literature			Skop	nje	1981		
	22.2.	No.	Author		Fitle	Publ		Year	
		1.	B. Andonovic]			nical lty- Bitola	2006	

Anr	Annex No.3 Program of the Course - first cycle studies						
1.	Title of t	he Course	English language 1				
2.	Code		UGD100112				
3.	Study Program		Production engineering/Transport, organization and logistics				
4.	Organize	er of the study program	Goce Delcev University				
	(unit or institute, Faculty,		Faculty of mechanical engineering				
	departm	ent)					

5.	Cycle (first, second and third cycle)	First cycle					
6.	Academic year / semester	2012/13	7.	Number of credits	6		
8.	Professor (s)	Assistant Prof. Biljana Ivanovska PhD, Prof. Tole Belcev PhD, Senior Lector M.A. Snezana Kirova					
9.	Requirements for enrollment the Course	none					
10.	Purposes of the curriculum (comp -enabling oral communication in ev attitudes and opinions; -understanding speech of different sinformation; -identifying general and particular i -enabling written expression (compacademic writing); -vocabulary improvement; -mastering different grammar forms - ability for receptive and productive context; -ability for understanding and proper (articles, tenses, reported speech, parsentences, modal verbs, infinitive/g formation, comparison of adjectives Content of the course program: - grammar: articles, countable/unco adjectives, reported speech, compari- vocabulary: methods of communic description of working skills, types furniture, description of physical ap- prepositions; -reading: different texts with exercises matching headings with the paragrar -listening: speech of different speak with exercises (multiple choice quest- -speaking: comparison, giving prop- agreeing/disagreeing, requesting and	eryday situations speakers and long nformation in lon ositions, letters, re- s and structures; e use of the Engli er application of g assive voice, cond erund, idioms, ph s etc.) untable nouns, pre- ison of adjectives ation, expressing of money, types of pearance and cha ses (multiple choi ph); ters and longer ora stions, taking note osals, expressing	er oral ger tex eports sh lan ramm itional rasal v esent t , adve feelin of hou racter, ce que al expr es, cor feelin	expressions and kts; and other forms of guage in oral and ar forms and struct l sentences, relative verbs, prepositions tenses, word-form rbs; gs and emotions, ses, electrical app lifestyles, phrasa estions, gapped tex ressions and inform npleting sentences gs, expressing opi	of written etures /e s, word- ation, liances, l verbs, kts, mation s);		
12.	complaining; - writing: reports, letters, essays. Learning methods:						
	Seminars, interactive method: team	n work, essays, homework, seminar paper, arning techniques, individual work, simulation of ating activities, individual learning.					
13.	Total available time	156					
14.	Distribution of available time	0 + 0 + 4	/ per v	week			

15.	Form: activit	s of teaching / learning ties	15.1	contact teaching, e-teaching		0
			13.2	exercises,	licai	0
				e-exams, preparatio independent semina work		
16.	Other	forms of activities	16.1	. Project tasks		2 hours
			16.2	Individual tasks		2 hours
			16.3	Home learning		hours
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 p	oints
	17.2.	Seminars (paper / pro and/or oral)	ject -	presentation: written	10 p	oints
	17.3.	Activity and participat	ion		20 pe	oints
18.	Assess	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score))		51 to 60 points	6(six	(E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points		ght) (C)
				81 to 90 points		ne) (B)
				91 to 100 points	,	en) (A)
19.	Signature requirement and passing the final exam			60% achievement on th	e writt	en exam
20.	Langu	age of teaching / study		English language		
21.	Metho of tea	od of monitoring the qua ching	ality	Self-evaluation		

2. Lite	rature									
	Requ	ired literature								
	No.	Author	Title	Publisher	Year					
22.1	. 1.	Virginia Evans and Jenny Dooley	Upstream -Intermediate	Express Publishing	2002					
	2.									
	3.									
	Addi	tional literature		•						
	No.	Author	Title	Publisher	Year					
22.2	. 1.	Oxford Practice Grammar	John Eastwood	OUP	2009					
	2.	Practical English Usage	Michael Swan	OUP	2005					
	3.									

Ann	ex No.3	Program of the Course	- first cycle s	studie	s		
1.	Title of t	he Course	The moder	n me	chani	ical materials	
2.	Code		2MF101912				
3.	Study Pr	ogram	Production	engin	eerin	g/Transport Orga	nization
			and Logisti				
4.	0	er of the study program	University Construction			-	ing
	departm	nstitute, Faculty, ent)	Faculty of I	viecna	inical	Engineering-Vir	lica
5.		rst, second and third	First cycle				
6.		c year / semester	First/I seme	ester	7.	Number of credits	4
8.	Professo			tkov,	PhD,	Assi. Professor	
9.		nents for enrollment	No				
10.	the Cour Purposes	se s of the curriculum (com	 netencies)• A	t the i	and o	f the course stud	ents will
11.	and appli	petences obtained through cative studying in the area of the course program:					-
	1. In	troduction to the newest n					
	2. T	he modern engineering ma	aterials				
	3. C	omposites					
	4. In	troduction to fullerenes					
	5. B	iomaterials an d their usag	ge				
	6. P	olymers					
	7. S	mart materials					
	8. C	ellular materials					
	9. N	anomaterials					
	10. C	eramics					
	11. W	ood, paper and glues					
	12. T	he procedure of material se	election				
12.	Learning methods: - Teaching, exercises, projects assignment						
13.	Total ava	ailable time	120				
14.		tion of available time	2+1	+ 1 /	per v	veek	

15	Form	a of too obing / loovering	15.1.	lectures / theoretical		2
15.	8 8			-	Δ	
	activities			contact teaching,		
				e-teaching		
			15.2.		tical	1
				exercises,	-	
				e-exams, preparation		
				independent seminar	r	
				work		
16.	Other	forms of activities	16.1.	Project tasks		
			16.2.	Individual tasks		1 hour
			16.3.	Home learning		
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 points	
	17.2.	Seminars (paper / proj	iect - 1	resentation · written	10 points	
	17.2.	and/or oral)	jeet - j	jiesentation. written	10 points	
	17.3.	Activity and participat	ion		20 points	
18.	Assess	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score)			51 to 60 points	6(six	(E)
				61 to 70 points	7 (se	ven) (D)
				*		ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points	10 (t	en) (A)
19.	Signa	ture requirement and		60% success from all pr	e exar	n activities i.e. 42
	passin	g the final exam		pointsfrom two mid-terr	n exai	ms, seminar
				paper, attendance of lect	tures a	and exercises
20.	Langu	age of teaching / study		Macedonian		
21.	Metho	od of monitoring the qua	ality	Self-evaluation		
	of tea		·			

22.	Literature									
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.		The modern mechanical materials	UGD - Stip	2011					
		2.								
		3.								
		Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.								
		2.								
		3.								

Anr	nex No.3							
	Pro	gram of the Course - first cycle studies						
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							
1.	Title of the Course	Engineering logistics						
2.	Code	2MF106712						
3.	Study Program	Production engineering/Transport, organization						
4.	Organizer of the study	and logistics Goce Delcev University Stip,						
		Faculty of Mechanical Engineering -Vinica						
	program(unit orinstitute,							
	Faculty, department)							
5.	Cycle (first, second and third	d First cycle studies (Bachelor studies)						
	cycle)							
6.	Academic year / semester	First/Second semester7.ECTS4						
8.	Professor (s)	Prof. Zoran Despodov, PhD						
9.	<b>Requirements for enrollmen</b> the Course	t No						
10.	Purposes of the curriculum(c	competencies): Familiarize students with the						
	fundamentals of Engineering	g logistics, practical application and ways of making a						
	better use of the resources							
11.	Content of the course program							
	1.Introduction to logistics.							
		tics systems in industrial enterprises.						
	3. Engineering Logistics and organization of production.							
	4. Supply of materials.							
	4. Supply of materials.	ort.						
	<ul><li>4. Supply of materials.</li><li>5. Storage for materials.</li></ul>	ort.						
	<ul><li>4. Supply of materials.</li><li>5. Storage for materials.</li><li>6. Inter operational transpo 7. Packaging and storage.</li></ul>	ort. le system of engineering logistics.						
	<ul><li>4. Supply of materials.</li><li>5. Storage for materials.</li><li>6. Inter operational transpo 7. Packaging and storage.</li></ul>	e system of engineering logistics.						

	11. Logistics support of the flexible manufacturing.								
	12. Distribution of the final products.								
12.	Learning methods:								
	-Theory, practical teaching and auditory exercises								
13.	Total availabletime			120					
14.	Distribution of availabletime	e		2+1+1					
15.	Forms of teaching /	15.1.		ctures / theoretical - contac	t 2				
	learning activities			aching, teaching					
		15.2.		eoretical andpractical exer	cises. 1				
			e-	exams,					
			-	eparationofindependentser ork	minar				
16.	Other forms of activities	16.1.	. Pi	roject tasks					
		16.2.	In	dividual tasks	1				
		16.3.	H	ome learning					
17.	Method of assessment								
	17.1. Tests / oral exams				70 points				
	17.2. Seminars (paper/pro	oject -	pres	entation: written and/or	10 points				
	oral) 17.3. Activity and participation	ation			20 points				
18.	Assessment Criteria(points			up 50points	5(five) (F)				
10.	/score)	-		51 to 60 points					
		-		61 to 70 points					
		-		71 to 80 points	8 (eight) (C)				
		-		81 to 90 points	9 (nine) (B)				
		-		91 to 100 points	10 (ten) (A)				
19.	Signature		60%	success from all pre exam a	. , . ,				
17,	requirementandpassingthefi	inal		-					
	exam		pointsfrom two mid-term exams, seminar paper, attendance of lectures and exercises						
20.	Language ofteaching / study	edonian							
20.	Method of monitoring the			evaluation					
	quality of teaching		~~~						
	quanty of wathing								

Litera	Literature										
	Requ	Required literature									
	No.	Author	Title	Publisher	Year						
22.1.	1.	T. Pantelic	Industrial logistics	ICIM,	2001						
				Krusevac							
	2.	V. Jocik	Technical logistics	Nis	2001						
	3.										
	Additional literature										
	No.	Author	Title	Publisher	Year						
22.2.	1.										
	2.										
	3.										

Ann	nex No.3	Program of the Course	- first cycle studie	es				
1.	Title of t	he Course	Thermodynamic	es				
2.	Code		2MF100312					
3.	Study Pr	ogram	Production enginand logistics	eerin	g / Transport, org	anization		
4.	Organize	er of the study program	University Goce	Delc	ev - Stip			
	(unit or i departm	institute, Faculty, ent)	Faculty of mecha	nical	l engineering-Vin	ica		
5.	Cycle (fin cycle)	rst, second and third	first cycle					
6.		c year / semester	2/III	7.	Number of credits	8		
8.	Professo	r (s)	Assistant Prof. R	adon	nir Cvetanovski, F	hD		
9.	Requirer	ments for enrollment the	e non					
	Course							
10.	Purposes	s of the curriculum (comp	etencies):Introduc	ing t	he values of cond	lition and		
		nges, the basic gas laws, eq		n of i	deal gases, interna	al		
	••	ntropy, heat diagram; humi	id air					
11.	Content of the course program: 1. Introductory terms and values of condition; Basic gas laws; Concept of ideal gas and equation of condition of an ideal gas; The main laws of thermodynamics; Specific heat capacity; Changes of condition of ideal gases; 2. Circular process; Recoverable and irreversible processes; Entropy; Double phased fixtures; Real gases; Humid air;							
12.	<b>Learning methods:</b> Lectures with presentations through slides, exercises, independent preparation and presentation of the project assignment							
13.	Total ava	ailable time	216					
14.	Distribut	tion of available time	3+2+2 / per	wee	k			

15	E		15 1	1	•	3
15.	8 8			L -	3	
	activities			contact teaching,		
				e-teaching		
			15.2.			2
				practical exercises,		
				e-exams, preparatio		
				independent semina	r	
				work		
16.	Other	forms of activities	16.1.	Project tasks		1 hours
			16.2.	Individual tasks		1 hours
			16.3.	Home learning		hours
17.	Metho	od of assessment	·			
	17.1.	Tests / oral exams			70 points	
	17.2.		ject - p	presentation: written	10 points	
		and/or oral)				
	17.3.	Activity and participat	ion		20 points	
18.	Asses	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score)			51 to 60 points	6(six) (E)	
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points	8 (ei	ght) (C)
				81 to 90 points	9 (ni	ne) (B)
				91 to 100 points	10 (t	en) (A)
19.	Signa	ture requirement and		60% from pre-exam act	ivities	or 42 points
	passir	g the final exam		from the two tests, semi	inar pa	apers, attendance
				of lectures and exercise	s	
20.	Langu	age of teaching / study		Macedonian		
21.	Metho	od of monitoring the qua	ality	Self-evaluation		
	of tea	ching	-			

. Litera	Literature									
	Required literature									
	No.	Author	Title	Publisher	Year					
22.1.	1.	Atanas Blazevski	Termodinamika I	UKIM,	1994					
22.1.	2.	Atanas Blazevski	Zbirka reseni zadaci po Termodinamika I	UKIM	1996					
	3.									
	Additional literature									
	No.	Author	Title	Publisher	Year					
22.2.	1.	NedjeljkaPetric, Ivo Vojnović, VanjaMartinac	Tehnicka Termodinamika	Kemisko- tehnoloskiFak ultet - Split	2007					
	2.									
	3.									

Ann	ex No.3 Program of the Co	urse - f	irst cycle studies				
1.	Title of the Course	Sti	rength of materials				
2.	Code	2N	IF100412				
3.	Study Program	Pro	Production Engineering /Transport, Organization				
		and	d Logistics		_		
4.	Organizer of the study program	m Un	iversity "Goce Delcev"	- Stip.			
	(unit or institute, Faculty,	Fa	culty of Mechanical Eng	gineeri	ing -Vinica		
	department)						
5.	Cycle (first, second and third	Fir	st cycle				
	cycle)						
6.	Academic year / semester				of credits 8		
8.	Professor (s)		si. Prof. Simeon Simeon				
9.	<b>Requirements for enrollment t</b> <b>Course</b>	he At	tended course of technic	cal me	chanics 1		
10.	Purposes of the curriculum (co	mpeter	ncies):				
	Students are introduced to the me	-		tresses	s, dimensioning		
11.	Content of the course program				<u> </u>		
	Geometric features of planar sec		atic moment, the mome	nt of i	nertia, Steiner's		
	theorem; Tensile and compressiv						
	deformation -Hooke's law. Plane	e stress	condition; Shear and tor	sion;	Bending: pure		
	bending, bending from forces, st	rength c	calculation, uniform stre	ngth, i	major stresses at		
	the bent beam; Elastic deformation	ons at 1	inear carriers; Statically	y inde	terminate		
	frameworks and carriers ; Buckli						
	hypotheses of strength ,obliquely						
	and torsion, Complex stresses of						
	of bending and torsion ; Cylinder		thick wall, Tank with the	nin wa	ll; Strength of the		
	material under dynamic load effe	ect.					
12.	Learning methods:	1 .	• • • • • • • •		1		
12	Lectures, Laboratory exercises, e	e-learnii		projec	ets, consultations.		
13.	Total available time		216 hours				
14.	Distribution of available time	15 1	3+2+2/ per week		2 hours		
15.	Forms of teaching / learning activities	15.1.			3 hours		
	activities		contact teaching,				
		15.2.	e-teaching theoretical and practic	<u>a</u> 1	2hours		
		13.2.	exercises,	ai	2110018		
			e-exams, preparation	of			
			independent seminar				
16.	Other forms of activities	16.1.	Project tasks	W UIK	1hour		
		16.2.	Individual tasks		1 hour		
					1 noui		
		16.3.	Home learning				
17.	Method of assessment						
	17.1.Tests / oral exams			70			
	17.2. Seminars (paper / proj and/or oral)	ect - pr	esentation: written	10			
	17.3. Activity and participati	ion		20			
				1			

10		1.0	• . •					
18.				to 50 points 5(five)(F)				
	score)			from 51 to 60 points	6(six) (E)			
				from 61 to 70 points	7 (seven) (D)			
				from 71 to 80 points	8 (eight) (C)			
				from 81 to 90 points	9 (nine) (B)			
				from 91 to 100 points	10 (ten) (A)			
19.	Signa	ture requ	uirement and	60% of pre-exam activiti				
	passir	ng the fin	al exam	from 2 midterm exams, j		nd		
				attending of lectures and	discussions			
20.	Langu	lage of to	eaching / study	Macedonian				
21.	Metho	od of mo	nitoring the quality	Self-evaluation				
	of tea	ching						
22.	Litera	ture						
		Requir	ed literature					
		No.	Author	Title	Publisher	Year		
		1.	Simeon Simeonov	Strength of material	UGD-Stip	2011		
				(script)				
	22.1.	2.	A.Ilievski,	Strength of material	Dgitprint -	2008		
			Lj.Todorovska-		Skopje			
			Azievska,					
			N.Babamov					
		3.	Lj.Trajkovska	Strength of	UKIM -Skopje	1993		
				material1				
		Additio	onal literature					
		No.	Author	Title	Publisher	Year		
		1.	Lj.Trajkovska	Strength of	UKIM -Skopje	1993		
				material1 Collection		1993		
	22.2.			tasks ,				
		2.	K.Angjusev,	Strength of	Mechanical	2008		
			D.Korunovski,	material1 Collection	faculty			
			Z.Petreski,G.Tasevsk	i tasks,	Skopje	2008		
		3.						

Anı	nex No.3	Program of the Course	e - first cycle studies					
1.	Title of th	e Course	Technical Mechanics 2(kinematics, dynamics,					
			oscillations)					
2.	Code		2MF100612					
3.	Study Pro	gram	Production Engineering /Transport, Organization					
			and Logistics					
4.	Organizer	of the study program	University "Goce Delcev"- Stip.					
	(unit or in	stitute, Faculty,	Faculty of Mecha	nnica	l Engineering -Vinica	L		
	departme	nt)						
5.	Cycle (firs	st, second and third	First cycle					
	cycle)							
6.	Academic	year / semester	Second/ third	7.	Number of credits	6		
8.	Professor	(s)	Assi. Prof. Simec	Assi. Prof. Simeon Simeonov, Ph.D				

9.	Requirements for enrollment t	he N	0					
10.	Course Purposes of the curriculum (co	mnoto	noios).					
10.	Students are introduced to the m	-	-	dynar	nics and			
	oscillations	ovenie	in of boules, kinematics,	uynai	ines and			
11.								
11.	1.Introduction to kinematics, mo		rticle, velocity, acceleration	tion:				
	2. Types of motion: rectilinear, h	-	•					
	3.Kinematics of a rigid body, tra		1 0		and plane motion;			
	4.Composed motion of a rigid be	ody, co	mpositon of translations	, comp	position of			
	rotations, composition of transla							
	5. Introduction to dynamics, dyn	amics	of particle, differentiatia	l equat	tion of motion,			
	types of motion;	1	1 6 6		1 • . •			
	6.Laws of mechanics, impulse a	ind wor	rk of force, amount of m	otion,	kinetic energy,			
	potential energy;	nrinai	nlas of machanias. Lagr	maa T	)' A lambart			
	7.Dynamics of material systems, principle;	princi	pies of mechanics: Lagra	ange-L	Alemoen			
	8.Moments of inertia of a body,							
	9.Rigid body dynamics, translat	ion mo	tion. rotation motion. pl	lane m	otion:			
	10.Oscillations general, free osci							
	resistance of oscillations is prope							
	11. Forced oscillations without r	esistan	ce, forced oscillations w	vith res	sistance (damped);			
	12. Application of oscillations in	a tech	nique.					
12.	Learning methods:							
10	Lectures, Laboratory exercises, e	e-learni		projec	ets, consultations.			
13.	Total available time		156 hours					
14.	Distribution of available time	15.1.	2+2+1/ per week lectures / theoretical -	2 hours				
15.	Forms of teaching / learning activities	15.1.	lectures / theoretical - 2 hours contact teaching,					
	activities		e-teaching					
		15.2.	theoretical and practic	al	2hours			
		10.21	exercises,					
			e-exams, preparation of	of				
			independent seminar v	vork				
16.	Other forms of activities	16.1.	Project tasks					
		16.2.	Individual tasks		1 hour			
		16.3.	Home learning					
17.	Method of assessment							
- / •	17.1. <b>Tests / oral exams</b>			70				
	17.2. Seminars (paper / proj	ect - pi	resentation: written	10				
	17.2.Seminars (paper / project - presentation: written10and/or oral)10							
	17.3. Activity and participation			20				
18.	Assessment Criteria (points /	t	to 50 points	5(fiv	e)(F)			
	score)		from 51 to 60 points	6(six				
			from 61 to 70 points	-	ven) (D)			
	from 71 to 80 points				8 (eight) (C)			
1			from 81 to 90 points	-	ne) (B)			

				from 91 to 100 points	10 (ten) (A)		
19.	Signat	ure requi	irement and	60% of pre-exam activities or minimum 42 points			
	passin	g the fina	l exam	from 2 midterm exams,	project activities a	nd	
				attending of lectures an	d discussions		
20.	Langu	age of tea	aching / study	Macedonian			
21.	Method of monitoring the quality			Self-evaluation			
	of teaching						
22.	Litera	ture					
		Require	ed literature				
		No. Author		Title	Publisher	Year	
		1.	S.Simeonov	Technical mechanics	UGD-Stip	2011	
	22.1.		Z.Sovreski	1(peer reviewed script)			
		2.	E,Vetijakoska	Kinematics, dynamics,	Mechanical	2008	
				oscillations	faculty-Skopje		
		3. E,Vetijakoska		Kinematics	Mechanical	2009	
					faculty-Skopje		
	22.2.	Additio	nal literature				
	<i>LL.L</i> .	No.	Author	Title	Publisher	Year	

Ann	nex No.3	Program of the Cours	e - first cycle studies				
1.	Title of t	the Course	Corrosion and corr	osior	n protection		
2.	Code		2MF102112				
3.	Study Pi	rogram	Production engineeri and Logistics	ng/T	ransport Organiz	cation	
4.	Organiz	er of the study	University Goce Del	cev-S	Stip,		
		ı (unit or institute, department)	Faculty of Mechanic	al En	gineering-Vinica	a	
5.		rst, second and third	First cycle				
6.		ic year / semester	Second/IIIsemester	7.	Number of credits	4	
8.	Professo	r (s)	Assi. Professor Slavco Cvetkov, PhD				
9.		ments for enrollment	No				
	the Cour						
10.		s of the curriculum (cor					
		npetences obtained throug cative studying in the are				-	
11.	Content	of the course program:					
	1. Ir	ntroduction to the corrosi	on				
	2. Corrosion in water solutions						
	3. P	itting corrosion					
	4. C	contact corrosion					

	5. Corrosion under mech	anical fa	actors					
	6. Procedures for metals							
		-						
	7. Protection with electrode potential							
	8. Anode protection							
	9. Protection with surface	e coatin	g					
	10. Electrochemical proce	dures fo	or metals protection					
	11. Coating metals protect	ion						
	12. Constructive methods	for met	als protection					
12.	Learning methods:	•						
	-Teaching, exercises, projects	assignn	nent					
13.	Total available time		120					
14.	Distribution of available tim	e	2 + 1 + 1 / per week					
15.	Forms of teaching /	15.1.	lectures / theoretical -		2			
	learning activities		contact teaching, e-teaching					
		15.2.	theoretical and practic	cal	1			
			exercises,					
			e-exams, preparation	of				
			independent seminar work					
16.	Other forms of activities	16.1.	Project tasks					
		16.2.	Individual tasks		1 hour			
					1 nour			
		16.3.	Home learning					
17.	Method of assessment				_			
	17.1.Tests / oral exams			-	points			
	17.2. Seminars (paper / pr and/or oral)	oject - j	presentation: written	10 p	points			
	17.3. Activity and participa	ation		20 p	oints			
18.	Assessment Criteria (points		ıp 50 points	5(fiv	/e) (F)			
	score)	51 to 60 points	· · ·	x) (E)				
		61 to 70 points		even) (D)				
			<u>'1 to 80 points</u>		$(\mathbf{ght})$ (C)			
			81 to 90 points 91 to 100 points	· · · ·	ine) (B) ten) (A)			
19.	Signature requirement and		50% success from all pre		, , ,			
	passing the final exam		pointsfrom two mid-term					
		a	ttendance of lectures and					
20.	Language of teaching / study	y N	Aacedonian					

21.	Method of monitoring the	Self-evaluation
	quality of teaching	

Litera	ture								
	Required literature								
	No.	Author	Title	Publisher	Year				
22.1.	1.     H.J. Svetomir       2     M. Milenkovie	Corrosion and protection	Skopje - TMF	1989					
	2.	M. Milenkovic	Corrosion and protection	Belgrade	1966				
	3.								
	Additional literature								
	No.	Author	Title	Publisher	Year				
22.2.	1.								
	2.								
	3.								

Ann	nex No.3	Program of the Course -	- first cycle studies				
1.	Title of t	he Course	Probability and s	tatis	tics		
2.	Code		2FI130712				
3.	Study Pr	ogram	Production Engine and Logistics	ering	g /Transport, Orgar	nization	
4.	Organize	er of the study program	University Goce D	Pelce	v - Stip		
		nstitute, Faculty,	Faculty of mechan	ical	engineering-Vinica	ì	
5.	-	rst, second and third	First cycle				
6.	Academi	c year / semester	Second/IV 7. Number of 4 credits 4				
8.	Professo	r (s)	Prof. Tatjana Atan	asov	a Pacemska, Ph.D		
9.	Requirer the Cour	nents for enrollment se	Enrollment of the	first	cycle study program	m	
10.	Knowled	<b>of the curriculum (comp</b> ge and understanding of th and their flexible use in pra	e basic concepts an	d the	eories of probability	and /	
11.	Content of the course program: Basic concepts of the probability theory. Random Experiment. Random event. Probability space. The axioms of probability. Classical definition of probability. Geometric definition of probability. Conditional probability. Total probability. Bayes' theorems or rule. Bernoulli' scheme. Approximate theorems of the Bernoulli' scheme. Discrete and continuous random variables. Random vectors. Definition of the mathematical expectation, variance and standard deviation. Functions of random						

10	Descriptive statistics. Confidence		vals. Tests of hypothesi	15.	
12.	Learning methods:				
	– Lectures,				
	– e-learning,				
	<ul> <li>individual and te</li> </ul>	am pro	iects		
		·· · · ·			
	– Consultations.				
13.	Total available time		120		
14.	Distribution of available time		2+1+1 / per week		
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	2
	activities		contact teaching, e-teaching		
		15.2.	theoretical and prac	tical	1
			exercises,		-
			e-exams, preparation	n of	
			independent semina	r	
1(		1/1	work		1
16.	Other forms of activities	16.1.	Project tasks	hours	
		16.2.	Individual tasks		1 hours
		16.3.	Home learning		hours
17.	Method of assessment				
	17.1. Tests / oral exams			70 p	oints
	17.2. Seminars (paper / proj	ject - p	resentation: written	10 p	ooints
	and/or oral)			• •	<u>.</u>
	<b>17.3.</b> Activity and participat			20 p	
18.	Assessment Criteria (points /		ip 50 points		(F)
	score)		51 to 60 points		(E)
			61 to 70 points	· · ·	(D)
			71 to 80 points		(C)
			81 to 90 points 91 to 100 points	· · ·	ne) (B) en) (A)
19.	Signature requirement and		50% of pre-exam activit		
17.	passing the final exam		points from 2 midterm e		
	F	-	and attending oflectures		1 0
20.	Language of teaching / study		Macedonian		
21.	Method of monitoring the qua	lity S	Self-evaluation		

22.	Literat	ture								
	22.1	Requi	Required literature							
	22.1.	No.	Author	Title	Publisher	Year				

	1.	Risto Malceski	Voved vo teorijata na verojatnosta	FON	2006
	2.	Željko Pauše	Uvod u matematičku statistiku	Školska knjiga, Zagreb	1993
	3.	Nikola Tuneski, Biljana Jolevska-Tuneska	Zbirka reseni zadaci po Verojatnost i statistika	Masinski Fakultet - Skopje	2011
	Addit	ional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.				
	2.				
	3.				

Ann	nex No.3	Program of th	ne Course - first/secon	nd/thire	d cyclestudies	5	
1.	Title of t	he Course	Ergonomics				
2.	Code		2MF106812				
3.	Study Pr	ogram	Production engineering and logistics	ng/Trar	isport, organiz	zation	
4.	program	er of the study (unit orinstitute, department)	Goce Delcev University -Stip, Faculty of Mechanical Engineering Vinica				
5.	Cycle (fin cycle)	rst, second and third	First cycle studies (Bachelor studies)				
6.	Academi	c year / semester	Second /third semester	7.	ECTS	4	
8.	Professor	r (s)	Assi. Prof. Dejan Mir	akovsk	i, PhD		
9.	Requirer the Cour	nents for enrollment se	No				
10.	its princij	of the curriculum (comples, ergonomic design ce and organization.	-		n to ergonor , characteristi		
11.	Content	ofthecourse program:					

	1.Introduction to ergonomics,									
	2. Ant	hropometric aspect of th	ne man-	-ma	chine system,					
	3. Erg	onomic principles,								
	4. Erg	onomics as a field for qu	uality ii	mpr	ovement,					
	5. Ergonomic design of the workspace in modern offices,									
	6. Am	bient perception,								
	7. Imp	act of lighting in working	ng cond	litio	ns,					
	8. Pres	sentation of visual inform	mation,							
	9. Wo	rkplace and its organiza	tion,							
	10. De	esign for special groups	of peop	ole,						
	11. Hı	man errors, accidents a	nd safe	ty a	t work,					
	12. Rł	ythm of the body, work	ing abi	lity	and effects of the alcohol.					
12.	Learn	ing methods:								
		_								
		<ul> <li>Lectures, exerc</li> </ul>	ises, in	d1V1	dual tasks					
13.	Total	availabletime			120					
14.	Distri	bution of availabletime	e		2+1+1 / per week					
15.	Form	s of teaching /	15.1.		ctures / theoretical - contac	et	2			
	learni	ng activities			aching, teaching					
			15.2.		eoretical andpractical exer	rcises.	1			
				e-	exams,					
				_	eparationofindependentse ork	minar				
16.	Other	forms of activities	16.1.	Pı	oject tasks		hours			
			16.2.	Individual tasks			1 hours			
			16.3.	3. Home learning			hours			
17.	Metho	od of assessment								
	17.1.	Tests / oral exams					70 points			
	17.2.	17.2.    Seminars (paper/project - presentation: written and/or					10 points			
	oral) 17.3. Activity and participation						20 points			
18.	Assess	sment Criteria(points			up 50points	5(five)	) (F)			
	/score	)			51 to 60 points	6(six)	(E)			
			-		61 to 70 points	7 (seve	en) (D)			

		71 to 80 points	8 (eight) (C)
		81 to 90 points	9 (nine) (B)
		91 to 100 points	10 (ten) (A)
19.	Signature	60% of pre-exam activities or m	inimum 42
	requirementandpassingthefinal	points from 2 midterm exams, pr	roject activities
	exam	and attending of lectures and dis	cussions
20.	Language ofteaching / study	Macedonian	
21.	Method of monitoring the	Self-evaluation	
	quality of teaching		

22.	Literat	ure				
		Requi	red literature			
		No.	Author	Title	Publisher	Year
	22.1.	1.           2.           3.	Prof. R. Polenakovik	"Ergonomics" (customized lectures)	UKIM, Faculty of Mechanical Engineering, Skopje	2007
			ional literature			
		No.	Author	Title	Publisher	Year
	22.2.	1.				
		2.				
		3.				

An	nex No.3	Program of the Cou	rse - first cycle studies
1.	Title of th	e Course	Industrial Management
2.	Code		2MF106912
3.	Study Pro	gram	Production Engineering /Transport, Organization and Logistics
4.	program (	of the study unit or institute, epartment)	University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica
5.	• /	st, second and third	First cycle

6.	Academic year / semester		cond/Third	7.	Number of		4		
8.	Professor (s)		mester ssi. Prof. Misko Dzi	drov F	ECTS cred	its			
				uiov, i	11.2				
9.	Requirements for enrollment the Course	: No	0						
10.	Purposes of the curriculum(co			manag	erial function	ıs: plan	ning,		
11	organizing and staffing, leaders		ontrolling.						
11.	Contents of the course progra 1. Introduction to Manage								
	2. Problem solving and de		making						
	3. Information and inform	ation s	ystems						
	4. Fundamentals of organi	izationa	al communication						
	5. Organizational commun	nicatior	n - flows, networks a	and typ	es				
	6. Management by objecti	ves and	l managerial function	on of pl	anning				
	7. Managerial function of	organiz	zing: division and g	rouping	g of work				
	8. Managerial function of organizational design	organiz	zation: coordination	, mana	gement range	e and			
	9. Organizational conflict	S							
	10. Staffing and Motivating								
	11. Styles of leadership and types of managers								
	12. Systems and processes	in cont	rolling						
12.	Learning methods:								
	Interactive teaching, exercises, and individual-study.	indivic	lual and/or team wo	ork on p	projects, cons	ultatio	ns		
13.	Total availabletime		120 hours						
14.	Distribution of availabletime		2 +1 +1						
15.	Forms of teaching /	15.1.	lectures / theoret	ical - c	ontact	2			
	learning activities		teaching, e-teaching						
		15.2.	theoretical and pr	actical	l exercises,	1			
			e-exams, preparationofind work	ependo	entseminar				
16.	Other forms of activities	16.1.	Project tasks						
		16.2.	Individual tasks			1			

17.	Meth	od of assessment				
	17.1.	Tests / oral exams		70 points		
	17.2.	Seminars (paper/project - oral)	presentation: written and/or	10 points		
	17.3.	Activity and participation		20 points		
18.	Asses	sment Criteria(points	up 50points	5(five) (F)		
	/score		51 to 60 points	6(six) (E)		
			61 to 70 points	7 (seven) (D)		
			71 to 80 points	8 (eight) (C)		
			81 to 90 points	9 (nine) (B)		
			91 to 100 points	10 (ten) (A)		
19.	Signa	ture	60% of pre-exam activities or mi	nimum 42 points		
	requi	rementandpassingthefinal	from 2 midterm exams, project activities and			
	exam		attending of lectures and discussi	ons		
20.	Lang	age ofteaching / study	Macedonian			
21.	Meth	od ofmonitoringthe quality	Self-evaluation			
	of tea	ching				

22.	Litera	ture							
		Required literature							
		Order No.	Author	Title	Publisher	Year			
	22.1.	1.	T. Kralev	Management Principles Part 1	CIM	2001			
		2.							
		3.							
		Addition	nal literature	·					
		Order No.	Author	Title	Publisher	Year			
		1.	T. Kralev	Management Principles Part 1	CIM	2005			
	22.2.	2.	T. Kralev	Management Principles Handbook	CIM	2005			
		3.	V. Bulat	Industrial Management	Faculty for Industrial Management - Kruševac	2007			

Ann	Annex No.3 Program of the Course - first cycle studies				
1.	Title of the	e Course	Machine elements		
2.	Code		2MF100712		

3.	Study Program		oduction Engineering /T	Transpo	ort, Organiz	zation			
			d Logistics	~ ~ ·					
4.	Organizer of the study program		University "Goce Delcev"- Stip.						
	(unit or institute, Faculty,	Fa	Faculty of Mechanical Engineering -Vinica						
	department)								
5.	Cycle (first, second and third	Fi	rst cycle						
	cycle)								
6.	Academic year / semester	se	cond / fourth 7. Nu	ımber	of credits	8			
8.	Professor (s)	As	ssi. Prof. Simeon Simeon	nov Ph	n.D				
9.	<b>Requirements for enrollment t</b>	he At	ttended course of Streng	th of n	naterial				
	Course		e						
10.	Purposes of the curriculum (competencies):								
				heir di	mensionin	g and			
	Students are introduced to the properties of machine elements, their dimensioning and constructing;								
11.	Content of the course program	•							
11.	Elements for joining. Separable threaded fasteners, types, threaded transmitters, threaded								
	fasteners, material, calculation; Wedges, serrated joints, pins. Inseparable fasteners (rivets, welded connections);								
	Springs, flexible springs, spirally	a corow	enringe construction on	d cala	ulation Bo	aring			
						anng,			
	ball bearing (rolling bearings), s					1			
	calculation; Clutches, constantly engaged, engaged-disengaged manageable clutches,								
	automatic clutches. Installation of pipes; Gears, cylindrical gears, construction and								
	calculation. Conical gears, construction and calculation; Worm and gear sets; Belts								
	transmitters; Friction transmitters; Chains.								
12.	Learning methods:								
· -·	8								
	Lectures, Laboratory exercises, o	e-learni		projec	ts, consulta	ations.			
	Lectures, Laboratory exercises, o Total available time	e-learni	216 hours	projec	ts, consulta	ations.			
	Lectures, Laboratory exercises, o	e-learni		projec	ts, consulta	ations.			
13.	Lectures, Laboratory exercises, o Total available time	e-learni	216 hours		ts, consulta	ations.			
13. 14.	Lectures, Laboratory exercises, o Total available time Distribution of available time	•	216 hours 3 +2 +2/ per week			ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	•	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching,			ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching	-	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	•	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract	-		ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises,	- tical	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation	- tical n of	3 hours	ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar	- tical n of	3 hours	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b> <b>activities</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar work	- tical n of	3 hours 2hours	ations.			
13. 14.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar	- tical n of	3 hours	ations.			
13. 14. 15.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b> <b>activities</b>	15.1.	216 hours 3 +2 +2/ per week lectures / theoretical contact teaching, e-teaching theoretical and pract exercises, e-exams, preparation independent seminar work	- tical n of	3 hours 2hours	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b> <b>activities</b>	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, o <b>Total available time</b> <b>Distribution of available time</b> <b>Forms of teaching / learning</b> <b>activities</b>	15.1. 15.2. 16.1.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminar workProject tasks	- tical n of	3 hours 2hours 1hour	ations.			
13.         14.         15.         16.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
<u>13.</u> <u>14.</u> 15.	Lectures, Laboratory exercises, of Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of r	3 hours 2hours 1hour	ations.			
13.         14.         15.         16.	Lectures, Laboratory exercises, o Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities	15.1. 15.2. 16.1. 16.2.	216 hours3 +2 +2/ per weeklectures / theoretical contact teaching, e-teachingtheoretical and pract exercises, e-exams, preparation independent seminan workProject tasksIndividual tasks	- tical n of	3 hours 2hours 1hour	ations.			
13.         14.         15.         16.	Lectures, Laboratory exercises, or         Total available time         Distribution of available time         Forms of teaching / learning         activities         Other forms of activities         Method of assessment         17.1.       Tests / oral exams         17.2.       Seminars (paper / proj	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours3 +2 +2/ per weeklectures / theoreticalcontact teaching,e-teachingtheoretical and practexercises,e-exams, preparationindependent seminarworkProject tasksIndividual tasksHome learning	- tical n of r	3 hours 2hours 1hour	ations.			
13.         14.         15.         16.	Lectures, Laboratory exercises, or         Total available time         Distribution of available time         Forms of teaching / learning         activities         Other forms of activities         Method of assessment         17.1.       Tests / oral exams         17.2.       Seminars (paper / projand/or oral)	15.1. 15.2. 16.1. 16.2. 16.3.	216 hours3 +2 +2/ per weeklectures / theoreticalcontact teaching,e-teachingtheoretical and practexercises,e-exams, preparationindependent seminarworkProject tasksIndividual tasksHome learning	- tical n of r 70 10	3 hours 2hours 1hour	ations.			
13.         14.         15.         16.         17.	Lectures, Laboratory exercises, or         Total available time         Distribution of available time         Forms of teaching / learning         activities         Other forms of activities         Method of assessment         17.1.       Tests / oral exams         17.2.       Seminars (paper / projand/or oral)         17.3.       Activity and participat	15.1. 15.2. 16.1. 16.2. 16.3. iect - pi	216 hours         3 +2 +2/ per week         lectures / theoretical         contact teaching,         e-teaching         theoretical and pract         exercises,         e-exams, preparation         independent seminal         work         Project tasks         Individual tasks         Home learning	- tical n of r 70 10 20	3 hours 2hours 1hour 1 hour				
13.         14.         15.         16.	Lectures, Laboratory exercises, or Total available time Distribution of available time Forms of teaching / learning activities Other forms of activities Method of assessment 17.1. Tests / oral exams 17.2. Seminars (paper / proj and/or oral) 17.3. Activity and participat Assessment Criteria (points /	15.1. 15.2. 16.1. 16.2. 16.3. ject - pi	216 hours         3 +2 +2/ per week         lectures / theoretical         contact teaching,         e-teaching         theoretical and pract         exercises,         e-exams, preparation         independent seminar         work         Project tasks         Individual tasks         Home learning         o 50 points	- tical n of r 70 10 20 5(fiv	3 hours 2hours 1hour 1 hour e)(F)				
13.         14.         15.         16.         17.	Lectures, Laboratory exercises, or         Total available time         Distribution of available time         Forms of teaching / learning         activities         Other forms of activities         Method of assessment         17.1.       Tests / oral exams         17.2.       Seminars (paper / projand/or oral)         17.3.       Activity and participat	15.1. 15.2. 16.1. 16.2. 16.3. ject - pr	216 hours         3 +2 +2/ per week         lectures / theoretical         contact teaching,         e-teaching         theoretical and pract         exercises,         e-exams, preparation         independent seminal         work         Project tasks         Individual tasks         Home learning	- tical n of r 70 10 20 5(fiv 6(six	3 hours 2hours 1hour 1 hour				

r				1	1		
				from 71 to 80 points	8 (eight) (C)		
				from 81 to 90 points	9 (nine) (B)		
				from 91 to 100 points	10 (ten) (A)		
19.	Signat	ture requ	irement and	60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activities and			
	passin	ig the fina	al exam				
				attending of lectures and	l discussions		
20.	Langu	lage of te	aching / study	Macedonian			
21.	Metho	od of mor	nitoring the quality	Self-evaluation			
	of tea						
22.	Litera	ture					
		Require	ed literature				
		No.	Author	Title	Publisher	Year	
		1.	Simeon Simeonov	Strength of material	UGD-Stip	2011	
	22.1.			(script)	_		
		2.	D.Stamboliev	Machine elements	UKIM Skopje	1975	
				,1,2			
		3.	K.Trimcevski	Machine elements	Mechanical		
					faculty - Skopje		
		Additio	nal literature				
		No.	Author	Title	Publisher	Year	
		1.	M. Ognjanovik	Mechanical elements	Mechanical	2008	
	22.2.				faculty -		
	22.2.				Beograd		
		2.	S.Simeonov	Mechanical elements-	UGD -Stip	2011	
				collection tasks			
		3.					
	l		1		1		

	1.	M. Ognjanovik	Mechanical elements	Mechanical faculty - Beograd	2008
	2.	S.Simeonov	Mechanical elements- collection tasks	UGD -Stip	2011
	3.				

Anı	nex No.3 Program of the Course	- first cycle studies
1.	Title of the Course	Fluid Mechanics
2.	Code	2MF100812
3.	Study Program	Production Engineering /Transport,
		Organization and Logistics
4.	Organizer of the study program	University Goce Delcev - Stip
	(unit or institute, Faculty,	Faculty of mechanical engineering-Vinica
	department)	

5.	Cycle (first, second and third cycle)	Fi	rst cycle				
6.	Academic year / semester	II	/IV semester	7.	Number credits		6
8.	Professor (s)	A	ssi. Prof. Radon	nir Cv	vetanosk	i, Ph.D	
9.	<b>Requirements for enrollment</b> <b>the Course</b>		one				
10.	<b>Purposes of the curriculum (c</b> of fluids, and training for calcul mechanic						
<b>11.</b> 12.	<b>Content of the course program</b> Tasks and application of fluid m physical properties of gases; mo of liquids; Statics of fluids; Kim flows ideal fluid through electri viscous fluid; Methods of applic through circular pipes; Hydrauli <b>Learning methods:</b>	nechani ost impo ematics cal flov cation o	ortant thermody flow; ideal flui v; two-dimensio of fluid mechani	namic d dyn onal p	and ph amics; S otential	ysical pro Some eler flow; con	operties nentary vection
12.	Theoretical lectures, auditory exercises, independent elaborati					hrough s	lides,
13.	Total available time		156 hours				
14.	Distribution of available time		2+2+1 / per	r wee	k		
15.	Forms of teaching / learning activities	15.1.	lectures / the		al -	2	
	acuvities		contact teach e-teaching	ing,			
		15.2.	theoretical ar exercises,	nd pr		2	
			e-exams, prej independent				
16.	Other forms of activities	16.1.	e-exams, prej	semir		hours	
16.	Other forms of activities	16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks		1 hours	
16.	Other forms of activities		e-exams, prej independent work Project tasks	semir sks			
	Other forms of activities Method of assessment	16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks		1 hours	
		16.2.	e-exams, prej independent work Project tasks Individual ta	semir sks	nar	1 hours	
	Method of assessment	16.2. 16.3.	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	nar 70 p	1 hours hours	
	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / proj	16.2. 16.3.	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	nar 70 p 10 p	1 hours hours	
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)	16.2. 16.3. ect - p	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	70 p 10 p	1 hours hours points points	
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participat	16.2. 16.3. ect - рі	e-exams, prej independent work Project tasks Individual ta Home learnin	semin sks ng	10 p 70 p 10 p 5(fiv	1 hours hours points points	
17.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participatAssessment Criteria (points /	16.2. 16.3. ect - p	e-exams, prej independent work Project tasks Individual ta Home learnin resentation: wr	semin sks ng	70 p 70 p 10 p 20 p 5(fiv 6(six	1 hours hours points points oints re) (F)	
16.         17.         18.	Method of assessment17.1.Tests / oral exams17.2.Seminars (paper / projand/or oral)17.3.Activity and participatAssessment Criteria (points /	16.2. 16.3. ect - print ion	e-exams, prej independent work Project tasks Individual ta Home learnin resentation: wr	semin sks ng	70 p 70 p 10 p 5(fiv 6(six 7 (se 8 (ei	1 hours hours points points points e) (F) c) (E)	

		91 to 100 points	10 (ten) (A)	
19.	Signature requirement and	60% of pre-exam activit	ties i.e. 42 points from	
	passing the final exam	two mid-term exams, seminar paper,		
		attendance of lectures and exercises		
20.	Language of teaching / study	Macedonian language		
21.	Method of monitoring the quality	Self-evaluation		
	of teaching			

]. ]	Literat	ture							
		Required literature							
		No.	Author	Title	Publisher	Year			
		1.	Ass. Prof. Ph.D Radomir Cvetanoski	Fluid Mechanics	UGD	2009			
	22.1.	2.	Frank White	Fluid Mechanics	Ars Lamina Skopje	2009			
		3.	Ilija Mijakovski	Fluid Mechanics- collection solution tasks	Technical Faculty - Bitola	1994			
		Additional literature							
		No.	Author	Title	Publisher	Year			
,	22.2.	1.							
		2.							
		3.							

Ann	nex No.3	Program of the Course	- first cycle studies	5		
1.	Title of t	he Course	Numerical metho	ds		
2.	Code		2FP101512			
3.	Study Pr	ogram	Production Engine and Logistics	ering	/Transport, Orga	nization
4.	Organize	er of the study program	University Goce D	elcev	-Stip	
	(unit or i departm	institute, Faculty, ent)	Faculty of Mechanical engineering -Vinica			ca
5.	Cycle (fi cycle)	rst, second and third	First cycle			
6.	Academi	ic year / semester	Second/Fourth	7.	Number of credits	6
8.	Professo	r (s)	Prof. Blagoj Golor	neov,	, Ph.D.	
9.	Require the Cour	ments for enrollment rse	No			
10.	-	s of the curriculum (com numerical mathematics.	petencies): Stu	ıdent	s are introduced t	o the
11.	<b>Content of the course program: Introduction</b> . Basic concepts of error estimation. Approximately solving equations with one unknown. Method of halving. Newton-					

12.	Rafson method. Secant method formula. Newton interpolation' interpolation. Numerical differentiation, New Trapeze and Simpson's rule. Ge method. Numerical solution of Euler method. Higher-order method Method of least squares. Techn Presentation of addicted activity CPM-critical path. Learning methods: Lectures, e-learning, individual	s formu ton inte aussian ordinar thods. I iques fo ies. Full	Ila back and forth. Two- erpolation. Numerical in elimination, Jakob and y differential equations. Runge-Kuta method. Po or network planning. Pro ker rule. PERT method-	dimen tegrati Gauss Taylo lynom ject, a time a	isional ion. Newton IP. Zajdelov or series methods. nial regression. activity, event.
13.	Total available time		156		
<u>13.</u> 14.	Distribution of available time		2+2+1 / per week		
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	2
	activities		contact teaching,		
	15.		e-teaching		
			theoretical and practical		2
			exercises,		
			e-exams, preparation		
			independent seminar		
			work		
16.	Other forms of activities	16.1.	Project tasks		
		16.2.	Individual tasks		1
		16.3.	Home learning		
17.	Method of assessment				
	17.1. Tests / oral exams			70 points	
	17.2. Seminars (paper / pro	ject - p	resentation: written	10 p	ooints
	and/or oral)	<b>5</b> I			
	17.3. Activity and participat	tion		20 p	oints
18.	Assessment Criteria (points /	ľ	p 50 points	5(fiv	ve) (F)
	score)		51 to 60 points	· · ·	x) (E)
		6	51 to 70 points	7 (se	even) (D)
			'1 to 80 points	8 (ei	ght) (C)
			1 to 90 points		ne) (B)
			1 to 100 points	· ·	en) (A)
19.	Signature requirement and		50% of pre-examactivitie		
	passing the final exam	-	points from 2 midterm ex		1 0
20	T		nd attending of lectures	and d	iscussions
20.	Language of teaching / study		Macedonian		
21.	Method of monitoring the	S	Self-evaluation		
	quality of teaching				

22.	Literat	ure
	22.1.	Required literature

No.	Author	Title	Publisher	Year
1.	Blagoj Golomeov	Numerical methods in mining and geology	Faculty of Natural and Technical Sciences	2009
2.				
3.				

2.	Literat	ture								
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.	1.	Virginia Evans and Jenny Dooley	Upstream -Intermediate	Express Publishing	2002				
		2.								
		3.								
		Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.	Oxford Practice Grammar	John Eastwood	OUP	2009				
		2.	Practical English Usage	Michael Swan	OUP	2005				
		3.								

Ann	ex No.3	Program of the Cours	se - first/second/ th	ird	cycle studies			
1.	Title of the	e Course	Measurement and	l me	easuring instrume	ents		
2.	Code		2MF102212					
3.	Study Pro	gram:	Production Engineering /Transport, Organization and Logistics					
4.	Organizer	of the study program	University "Goce I	Delc	ev"- Stip,			
	(unit or in	stitute, Faculty,	Faculty of Mechan	ical	Engineering -Vini	ica		
	departmen	nt)						
5.	Cucle (firs	st, second, third cycle)	First cycle					
6.	Academic	year / semester	Second / fourth	7.	Number of	4		
			semester		ECTS credits			
8.	Professor	(s)	Assi. Prof. Bratica	Ten	nelkoska, Ph.D			
9.	Requirem Course	ents for enrolment the	No					
10.	Purposes of	of the curriculum (com	petencies):Students	are i	introduced to the t	ypes of		
	measuring	instruments and their app	plication.					
11.	Content of	f the course program:						
	Basic and	general terms in metrolog	gy; Measurement an	d me	easurement concep	ot,		
	defined in	terms of metrology; Mea	suring instruments;	calip	per rule and micro	meters;		
	comparator	rs; yardsticks for measur	ing angles and cones	s; M	ethods for measur	ement		

	and control coils; measuring ma	achines	; Measuring instrument	s base	d on optical
	measurements; pressure measur		-		
	measuring flow; Measuring for	ce. Inst	ruments for measuring of	deform	nations.
12.	Learning methods;				
	Theoretical lectures, laboratory	exerci			
13.	Total available time		120 hours		
14.	Distribution of the available ti		2+1+1		
15.	Forms of teaching/ Learning	15.1	Lectures - theoretic	al	2
	activities		contact teaching/e-		
		15.0	teaching		1
		15.2	Theoretical and		1
			practical exercises, e		
			exams, preparation of independent seminar		
			work	L	
16.	Other forms of activities		Projects tasks		
		16.2	Individual tasks	Individual tasks	
		16.3	Home learning		
17.	Method of assessment				1
	17.1. Tests / oral exams,			70 p	oints
	17.2. Seminars (paper /proje	ect - p	resentation; written	10 p	oints
	and /or oral	•		20	• • •
1.0	17.3. Activity and participac			-	oints
18.	Assessment Criteria (points /		to 50 points	· · ·	ve) (F)
	score)		from 51 to 60 points	<u>`</u>	x) (E)
			from 61 to 70 points	<u>`</u>	ven) (D)
			from 71 to 80 points		ght) (C)
			from 81 to 90 points		ne) (B)
10			from 91 to 100 points		en) (A)
19.	Signature requirement and		60% of pre-exam activit		
	passing tne final exam		points from 2 midterm e		
20	I anguage of the shine states de-		and attending of lectures Macedonian	s and (	uiscussions
20.	Language of teaching/study				
21.	Method of monitoring the quality of teaching		Self-evaluation		
	quanty of teaching				

22.	Liter	ature						
		Required literature						
		Order	Author	Title	Publisher	Yea		
		No.				r		
	22.1	1.	Bratica Temelkoska	Measurement and	University "Goce	2009		
				measuring	Delcev"- Stip.			
				instruments-textbook	Faculty of			
					Mechanical			

					Engineering - Vinica		
		2.					
		3.					
		Additional literature					
		Order No.	Author	Title	Publisher	Yea r	
	22.2	1.					
		2.					

	2.		
	3.		

Ann	nex No.3 Pro	ogram of the Course	e - first cycle studie	es			
1.	Title of the C	ourse	Heat transfer				
2.	Code		MF102312				
3.	<b>Study Progra</b>	ım	Production Engin	eerin	g /Transport,		
			Organization and				
4.	Organizer of	the study program					
	(unit or instit	•••			engineering-Vinic	ca	
	department)	, ,	5		0 0		
5.	· · · ·	second and third	first cycle				
	cycle)						
6.	Academic yea	ar / semester	II/IV semester	7.	Number of	4	
					credits		
8.	Professor (s)		Assi. Prof. Radon	nir C	vetanoski, Ph.D	•	
9.	<b>Requirements for enrollment</b>		No				
	the Course						
10.	Purposes of t	he curriculum (com	petencies): Introduc	ction	to basic concepts	of heat	
	and temperatu	ire, the basic types of	heat transfer, condu	iction	n, convection and		
	radiation, heat	t transfer devices, He	at and types of Heat	, effi	ciency and design		
11.	Content of th	e course program:					
	1.Temperature	e and heat; Transmiss	sion of heat; conduct	tion l	heat transfer; Conv	vective	
	heat tranfer; R	Radiation heat transfe	r; Heat;				
	2. Efficiency of	of heat exchangers; C	Classification of heat	excl	hangers; Tubular h	eat	
	exchangers; P	late heat echangers;	Regenerativeheat ex-	chan	gers; Designing he	eat	
	exchangers;						

12.	Lectur defens	<b>ing methods:</b> res with presentations thro se of the project task	ough sli	des, exercises, independ	dent el	aboration and		
13.		available time		120 hours				
14.		bution of available time	[	2+1+1 / per week				
15.		s of teaching / learning	15.1.	lectures / theoretical	l -	2		
	activi	ties		contact teaching,				
			15.2.	e-teaching theoretical and prac	tical	1		
		exercises,				1		
			e-exams, preparatio	n of				
			independent seminar work					
	0.1							
16.	Other	forms of activities	16.1.	Project tasks		hours		
			16.2.	Individual tasks		1 hours		
			16.3.	Home learning		hours		
17.	Metho	od of assessment						
	17.1.	Tests / oral exams			70 points			
	17.2.	Seminars (paper / proj and/or oral)	ect - p	resentation: written	10 p	oints		
	17.3.	Activity and participat	ion		20 pc	oints		
18.	Asses	sment Criteria (points /	I	up 50 points	5(fiv	e) (F)		
	score)			51 to 60 points	6(six	) (E)		
				61 to 70 points	<u>`</u>	ven) (D)		
				71 to 80 points		ght) (C)		
				81 to 90 points	· · ·	ne) (B)		
19.	Signa	tura raquirament and		<b>91 to 100 points</b> 50% of pre-exam activit		en) (A)		
19.	Signature requirement and passing the final exam			two mid-term exams, s		_		
	Passi	B vite minur exami		attendance of lectures a				
20.	Langu	age of teaching / study		Macedonian language	_			
21.	Metho of tea	od of monitoring the qua	lity S	Self-evaluation				

		Requ	ired literature			
		No.	Author	Title	Publisher	Year
	22.1.	1.	A. Mojsovski	Heat transfer and mass	UKIM	1992
		2.				
		3.				
	22.2.	Addi	tional literature		-	•
		No.	Author	Title	Publisher	Year

	1.	Schlunder E. U	Heat Exchanger Design	Hamisphere	1987
			Handbook	Publishing	
				Corporation,	
				Washington,	
				USA	
	2.	John H. Lienhard	A heat transfer	Philogiston	2011
			textbook	press	
	3.				

No.	Author	Title	Publisher	Year
1.	Schlunder E. U	Heat Exchanger Design Handbook	Hamisphere Publishing Corporation, Washington, USA	1987
2.	John H. Lienhard	A heat transfet textbook	Philogiston press	2011
3.				

Anr	nex No.3	Program of the Course	- first cycle studie	s			
1.	Title of t	he Course	ManagmentInfo	rmat	tion Systems		
2.	Code		2MF106112				
3.	Study Pr	ogram	Transport, Organi	izatio	on and Logistics		
4.	0	er of the study program institute, Faculty, ent)	University Goce Delcev - Stip Faculty of mechanical engineering-Vinica			ca	
5.	Cycle (fi cycle)	rst, second and third	1 st cycle				
6.	Academic year / semester		3 rd / 5 th	7.	Number of credits	8	
8.	Professo	r (s)	Professor Zoran Panov, PhD				
9.	Require the Cour	ments for enrollment rse	none				
10.	Purposes of the curriculum (competencies): Introduction to data, information systems and management. Hardware and software maintenance of the production information systems.						
11.	<ol> <li>Content of the course program:         <ol> <li>Data, information systems;</li> <li>Management of information systems / subsystems;</li> <li>The structure of information systems (information systems);</li> </ol> </li> </ol>				ns for top manage	ment,	

	4. Helpful tools to support decision making;									
	-	lware and software mainte		0	matio	n systems;				
	6. Per	formance measurement sy	stem-F	PMS and their models;						
		cators to be used in a PM								
	8. JIT	approach, MRP 1, MRP 2	2, KanI	Ban system;						
		duction Information syste			;					
		esigning the architecture o		<b>1</b>						
		eliminary business model			ns and	technology;				
		ta architecture, applicatio								
12.	Learn	Learning methods: Lecturing, exercises								
13.	Total	Total available time 216								
14.		bution of available time		3+2+2/ per week						
15.		s of teaching / learning	15.1.	lectures / theoretical	1-	3				
101	activit		10111	contact teaching,	-	5				
l				e-teaching						
			15.2.	theoretical and prac	ctical	2				
				exercises,						
				e-exams, preparation of						
				independent semina	r					
				work						
16.	Other activit	forms of studying	16.1.	. Project tasks		1 hours				
	activit		16.2.	. Individual tasks		1 hours				
			16.3.	. Home learning		hours				
17.	Metho	od of assessment								
	17.1.	Tests / oral exams			70 p	ooints				
	17.2.	Seminars (paper / proj	ject - p	resentation: written	10 p	points				
		and/or oral)	· •							
	17.3.	Activity and participat	ion		20 p	oints				
18.	Assess	sment Criteria (points /	I	up 50 points	5(fiv	re) (F)				
	score)			51 to 60 points	6(six	x) (E)				
			(	61 to 70 points	7 (se	even) (D)				
				71 to 80 points	8 (ei	ght) (C)				
				81 to 90 points	9 (ni	ne) (B)				
				91 to 100 points	ts 10 (ten) (A)					
19.	0	ture requirement and		60% of pre-exam activi						
	passin	g the final exam		points from 2 midterm						
20	т			and attending of lecture	s and	discussions				
20.	-	age of teaching / study		Macedonian						
21.		od of monitoring the qua	lity	Self-evaluation						
	of tea	ching								

22.	Literat	ure
	22.1.	Required literature

	No.	Author	Title	Publisher	Year
	1.	Prof. Zoran Panov, PhD	Informaciono- upravuvacki sistemi - lectures	UGD, Stip	2008
	2.	M. Stoilovik	Logicna sinteza upravljanja	Masinski fakultet, Nis	2002
	3.				
	Addi	tional literature			
	No.	Author	Title	Publisher	Year
22.2.	1.	V.Bulat, Z.Gavric	Proizvodni informacioni sistemi	FIM, Krusevac	2006
	2.	Dz. Nadrljanski	Informacioni sistemi	FIM, Krusevac	2005
	3.				

Ann	nex No.3	Program of the Course	- first cycle s	tudies			
1.	Title of th	e Course	Internal con	nbustior	n engines		
2.	Code		2MF109112				
3.	<b>Study Pro</b>	gram	Transport, O	rganizati	ion and Logistics		
4.	Organizer	of the study program	University "	Goce De	lcev"- Stip,		
		stitute, Faculty,	Faculty of M	echanica	al Engineering -Vinic	a	
	departme						
5.	-	st, second and third	First cycle				
	cycle)					1 -	
6.	Academic	year / semester	third / fifth	7.	Number of ECTS credits	8	
8.	Professor (s) Assi. Prof. Zlatko V. Sovreski, Ph.D						
9.	-	ents for enrollment the	No				
	Course						
10.	Introductio	f the course program: on to basic Thermotechnic evices heating and air con nengines			,	es, steam	
11.	Contents of	of the course program:					
	Types of energy; energy sources; steam boilers; Heat balance and heat losses; Useful coefficient; construction of steam boilers; Thermal turbines and plants. Basic elements and classification steam turbines plants; Heating and cooling; ventilation						
10		rigerating plants; Motor c	ycles in engin	es miern	ai compustion		
12.		Laboratory exercises, e-lea	arning, individ	ual and t	eam projects, consult	tations.	
13.	Total avai	lable time	216 ho	urs			
14.	Distributi	on of available time	3+2+2				

15.	Form activi		ing / learning	15.1.	lectures / theoretical contact teaching, e-teaching	-	3		
				15.2.	0	ical	2		
					exercises,				
					e-exams, preparation independent seminar				
16.		er forms of studying 16 vities 16			work Project tasks				
	activi				Individual tasks		2		
				16.3.	Home learning				
17.		od of asse				I			
	17.1.		oral exams				points		
	17.2.	Seminar and/or o	rs (paper / proj oral)	10 p	points				
	17.3.	•	and participati	20 p	oints				
18.			iteria (points /		up 50 points		e) (F)		
	score)				51 to 60 points		(E) (E)		
					61 to 70 points 71 to 80 points		even) (D) ght) (C)		
					81 to 90 points		ine) (B)		
					91 to 100 points		en) (A)		
19.			irement and		60% of pre-exam activiti				
	passir	ng the fina	al exam		from 2 midterm exams, project activities and attending of lectures and discussions				
20.	Lang	age of te	aching / study		Macedonian				
21.	U	od of mor	nitoring the qua		Self-evaluation				
22.	Litera	-							
		1	ed literature						
		Order No.	Author		Title	Pu	blisher	Year	
		1.	S. Armenski		Thermotechnical machinery and devices		iversity s. Cyril and	1995	
	22.1.					Me	ethodius " opje		
		2.					<u></u>		
		3.							
		Additio	nal literature			<b>I</b>			
	22.2.	Order No.	Author		Title	Publ	isher	Year	
		1.	I. Petreski		Steam turbines		versity Cyril and	2004	

				Methodius " Skopje	
	2.	M. Dimitrovski	Engines internal combustion	University "Ss. Cyril and Methodius " Skopje	2001
	3.				

Ann	Annex No.3 Program of the Course - first cycle studies								
1.	Title of t	he Course	Н	Human resource management					
2.	Code				106212				
3.	Study Pr	ogram			sport, organiz	zatio	n and log	gistics	
4.		er of the study progra			ersity Goce I				
		institute, Faculty,			lty of mechai			ring	
	departm				artment of tra				l
			lo	gis	tics				
5.	Cycle (fi	rst, second and third	F	irst	cycle				
	cycle)						T		r
6.	Academi	ic year / semester	Т	hirc	d / fifth	7.	Numbe		6
							credits		
8.	Professo			ssis	stant Prof. Ni	koli	nka Done	eva, PhD	
9.		ments for enrollment (	the no	no					
10	Course	C 41		<b>npetencies):</b> Acquisition of knowledge about					
10.	-	s of the curriculum (co	-			-		0	
		human resources, strate							on
11.		performance evaluation of the course program		IIai	ige managen	ient .	in the org	gamzation.	
11.		Resources Developme		he	21st Century	· 2 I	Devising	strategies f	or
		source development; 3							01
		into practice; 4. Identi							on for
		tion; 6. Career develop							
		ent; 8. Building effecti							
		nce; 10. Organizational							
	organizat	-		-		-	-		
12.		g methods:							
13.		ailable time			156				
14.		tion of available time			2+2+1/ per				
15.		f teaching / learning	15.1.		ectures / theo		cal -	2	
	activities	5			ontact teach	ing,			
			4.5.5		-teaching				
			15.2.		heoretical an	nd pi	ractical	2	
					xercises,		/• A		
					-exams, prep				
					ndependent s	semi	nar		
				W	vork				

16.	Other	forms of activities	16.1.	Project tasks		Hours
			16.2.	Individual tasks		1 Hours
			16.3.	Home learning		hours
17.	Metho	od of assessment				1
	17.1.	Tests / oral exams			70 p	points
	<b>17.2.</b> Seminars (paper / project - presentation: written and/or oral)				10 p	points
	17.3. Activity and participation					oints
18.	Assess	sment Criteria (points /	ι	up 50 points	5(five) (F)	
	score)		5	51 to 60 points	6(six	x) (E)
			(	61 to 70 points	7 (se	even) (D)
			7	71 to 80 points	8 (ei	ght) (C)
			8	81 to 90 points	9 (ni	ne) (B)
			9	91 to 100 points	10 (t	en) (A)
19.	Signa	ture requirement and	e	50% of pre-exam activi	ties or	minimum 42
	passin	ig the final exam	I	points from 2 midterm	exams	, project activities
			8	and attending of lecture	s and	discussions
20.	Langu	age of teaching / study	I	Macedonian language		
21.	Metho	od of monitoring the qua	ality S	Self-evaluation		
	of tea	ching	-			

2. Lite	Literature										
	Requ	Required literature									
	No.	Author	Title	Publisher	Year						
22.1	2.	Ass. Prof. Radmil Polenakovik, PhD (prepared)	Razvoj na coveskite resursi (for internal use)	Faculty of mechanical engineering, SkopjeUKIM	2003						
	3. Addi	tional literature									
	No.	Author	Title	Publisher	Year						
22.2	. 1.										
	2.										
	3.										

Annex No.3 Program of the Course - first cycle studies					
1.	Title of th	e Course	Plants and fuel		
2. Code			2MF109612		
3. Study Program			Transport, Organization and Logistics		

4.	Orgai	nizer of the study program	m	University "Goce Delcev"- Stip,					
	(unit	or institute, Faculty,		Facu	lty of Mechai	nical l	Engineer	ing -Vinica	
	-	tment)							
5.	Cycle cycle)	(first, second and third		First cycle					
6.		emic year / semester		Thir	d/ fifth	7. I	Number	of ECTS	4
		·				0	credits		
8.	Profe	ssor (s)		Assi	. Prof. Zlatko	V. Sc	ovreski, F	Ph.D	
9.	-	rements for enrollment t	he	No					
	Cours								
10.		oses of the curriculum (co						classical a	nd
11		ssical plants and fuels, the						1 41 1	• 1
11.		ents of the course program							
	-	es, vehicles with modified the swith hybrid drives, electronic dri dri drives, electronic drives, electronic				-		•	
		el cells, fuelcell vehicles co					U		
		ndcombustion, general tern	-				-		ingine,
		istion of fuels, products of							
		istion speeds.			r · · ·			,,	
12.	1	ing methods:							
	Lectur	res, Laboratory exercises, e	e-lear	ning	, individual a	nd tea	m projec	ts, consulta	tions.
13.		available time		120 hours					
14.	Distri	bution of available time			2+1+1				
15.	Form	s of teaching / learning	15.1	1. <b>I</b>	ectures / theo	oretic	al -	2	
	activi	ties		c	ontact teachi	ing,			
					-teaching				
			15.2	-			1		
					xercises,		e		
					-exams, prep				
					ndependent s vork	semm	ar		
16.	Other	forms of activities	16.1		Project tasks				
					0			4	
			16.2		ndividual tas			1	
			16.3	3. <b>I</b>	Iome learnin	Ig			
17.		od of assessment							
	17.1.	Tests / oral exams					70 p	oints	
	17.2.	Seminars (paper / proje and/or oral)	ect - j	prese	entation: wri	tten	10 p	oints	
	17.3.Activity and participation20 points								
18.	Asses	sment Criteria (points /		up 50 points			5(fiv	5(five) (F)	
	score)	· <b>-</b>			to 60 points		6(six		
				61 to 70 points		7 (se	ven) (D)		
				71	to 80 points		8 (eig	ght) (C)	
					to 90 points		9 (nii	ne) (B)	
					<b>91 to 100 points</b>			10 (ten) (A)	

19.	Signat	ture reau	irement and	60% of pre-exam activities or minimum 42 points					
	-	g the fina		from 2 midterm exams, project activities and					
	Pussii			attending of lectures and discussions					
20.	Langu	age of te	aching / study	Macedonian language					
21.	Metho	od of mon	itoring the quality	Self-evaluation					
	of tead		8 1 1						
22.	Litera	ture							
		Require	d literature						
		Order No.	Author	Title	Publisher	Year			
		1.	R. Pavletic	Combustion: theoretical base, fuel, engineering use - Ljubljana - R. Slovenia	Faculty of Mechanical Engineering - Ljubljana, R. Slovenia	1996			
	22.1.	2.	J.Kames	Alternative engine for cars	BEN - Technická literatura - Praha	2004			
		3.	Zl. Sovreski	Technology Fuel Cells: features and opportunity for application in JGPP in the Republic. Macedonia	University Ss. Clement Ohridski - Bitola	2003			
		Additio	nal literature						
		Order No.	Author	Title	Publisher	Year			
	22.2.	1.	E. L. Keating	Applied combustion – New York [etc.]	Mechanical enginnering, Marcel Dekker	1993			
		2.	K. Kordesch, G.	K. Kordesch, G.	K. Kordesch, G.	K. Kordesch, G.			
		3.							

Ann	ex No.3 Program of the Cours	a – first ovela studios		
	1 logram of the Cours	e - mst cycle studies		
1.	Title of the Course	Basics of thermotechnical machines		
2.	Code	2MF102512		
3.	Study Program	Transport, Organization and Logistics		
4.	Organizer of the study program	University "Goce Delcev"- Stip,		
	(unit or institute, Faculty,	Faculty of Mechanical Engineering -Vinica		
	department)			

5.	Cycle (first, second and third cycle)	Fi	First cycle						
6.	Academic year / semester	th			Number credits	of ECTS	6		
8.	Professor (s)	A	ssi. Prof. Zlatko	V. S	ovreski, P	h.D	•		
9.	<b>Requirements for enrollment</b>	the N	0						
	Course								
10.	Purposes of the curriculum (co	ompete	ncies):(Introduc	ing s	tudents to	basic			
	thermo technic machines, steam	boilers	ilers, thermal turbines, steam turbines, heating devices						
	and air conditioning, refrigeration	on plant	s, Internal comb	ustio	n engines	).			
11.	Contents of the course program	m:							
	1. Types of energy; energy sour	ces; ste	am boilers; Ther	mal ł	balance				
	and heat losses; Useful coefficient; construction of steam boilers; Thermal turbines and								
	plants.								
	2. Elements and classification of steam turbines plants; Heating and cooling; ventilation								
	plants; Refrigerating plants; Engines cycles at internal combustion engines)								
12.	Learning methods:								
	Lectures, Laboratory exercises,	e-learni	-	nd tea	am projec	ts, consulta	tions.		
13.	Total available time		120 hours						
14.	Distribution of available time		2+1+1						
15.	Forms of teaching / learning activities	15.1.	5.1. lectures / theoretical - contact teaching,			2			
			e-teaching	8,					
		15.2.	theoretical ar	nd pr	actical	1			
			exercises,	•					
			e-exams, prej	parat	tion of				
			independent	semi	nar				
			work						
16.	Other forms of activities	16.1.	Project tasks						
		16.2.	Individual tas			1			
		16.3.	Home learnin	ıg					
17.	Method of assessment				<u> </u>				
	17.1. Tests / oral exams				70 p	oints			
	17.2. Seminars (paper / proj and/or oral)	ject - pi	resentation: wri	tten	10 p	oints			
	17.3. Activity and participat	ion			20 pc	oints			
18.	Assessment Criteria (points /	۲	up 50 points		5(fiv	e) (F)			
	score)		51 to 60 points		6(six	, , ,			
	,		61 to 70 points		,	$\frac{(D)}{(D)}$			
			71 to 80 points		```	$\frac{(D)}{(D)}$			
			B1 to 90 points			(B) (B)			
			91 to 100 points			(B) $(A)$			
			· · · · · · · · · · · · · · · · · · ·		10 (0				

19.	Signa	ture requ	irement and	60% of pre-exam ac	60% of pre-exam activities or minimum 42 points				
		ng the fina		from 2 midterm exami					
	-	0		attending of lectures and discussions					
20.	Langu	lage of te	aching / study	Macedonian language					
21.			itoring the quality	Self-evaluation	Self-evaluation				
	of tea								
22.	Litera	ature							
		Require	d literature						
		Order	Author	Title	Publisher	Year			
		No.							
		1.	S. Armenski	Termotehnich	University	1995			
	22.1.			machinery and	"Ss. Cyril and				
				equipment	Methodius "				
		2			Skopje				
		2.							
		3.							
		Additional literature							
		Order	Author	Title	Publisher	Year			
		No.							
		1.	I. Petreski	Steam turbines	University				
					"Ss. Cyril and	2004			
	22.2.				Methodius "				
		2.	M. Dimitrovski		Skopje				
		۷.	M. Dimitrovski	Engines internal combustion	University "Ss. Cyril and	2001			
				combustion	Methodius "	2001			
					Skopje				
		3.			°FJ*				
	I								

Anı	nex No.3	Program of the Course	urse - first cycle studies					
1.	Title of the	e Course	Engineering eco	nom	ics			
2.	Code		2MF107012					
3.	Study Pro	gram	Production Engin and Logistics	leerii	ng /Transport, Organization			
4.	0	r of the study program stitute, Faculty, nt)	University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica					
5.	Cycle (firs cycle)	st, second and third	First cycle					
6.	Academic	year / semester	Third/fifth7.Number of ECTS4credits					

8.	Professor (s)	As	Assi. Prof. Misko Dzidrov, Ph.D					
9.	<b>Requirements for enrollment t</b> Course	he No	No					
10. 11.	Purposes of the curriculum (co Learning in the field of engineering making investment decisions am related to financial information. Contents of the course program	ing economic ong pro	nomic, the methods and analy					
	1. Introduction to the econo 2. Decision-making method	mic me	thods applied in engineering					
	3. Studying of cash flow concepts							
	4. Rate of return, return of investments,							
	5. Financial indicators for profitability, effectiveness, efficiency,							
	6. Cost analysis, revenue, profits,							
	7. Balance sheet and income statement							
	<ol> <li>Studying of basic economic value analysis (present value, annual analysis, incremental analysis, cost/ benefit analysis)</li> </ol>							
	9. Methods for calculating of depreciation							
	10. Techniques for estimating of equipment replacement							
	11. Making investment decisions among project alternatives							
	12. Learning techniques for preparation of a business plan and feasibility study							
12.	<b>Learning methods:</b> Interactive t projects, consultations and indivi			team work on				
13.	Total available time		120 hours					
14.	Distribution of available time		2 +1 +1					
15.	Forms of teaching / learning activities	15.1.	lectures / theoretical - contact teaching, e-teaching	2				
		15.2.	theoretical and practical exercises, e-exams, preparation of independent seminar work	1				
16.	Other forms of activities	16.1.	Project tasks					
		16.2.	Individual tasks	1				
		16.3.	Home learning					
17.	Method of assessment	1	1	1				

	17.1.	Tests / oral exams		70
	17.2.	Seminars (paper / project - and/or oral)	presentation: written	10
	17.3.	Activity and participation		20
18.	Asses	sment Criteria (points /	to 50 points	5(five)(F)
	score)		from 51 to 60 points	6(six) (E)
			from 61 to 70 points	7 (seven) (D)
			from 71 to 80 points	8 (eight) (C)
			from 81 to 90 points	9 (nine) (B)
			from 91 to 100 points	10 (ten) (A)
19.	Signa	ture requirement and	60% of pre-exam activit	ies or minimum 42 points
	passir	ng the final exam	from 2 midterm exams,	project activities and
			attending of lectures and	discussions
20.	Lang	uage of teaching / study	Macedonian	
21.	Metho of tea	od of monitoring the quality ching	Self-evaluation	

22.	Litera	erature										
		Required literature										
		Order No.	Author	Title	Publisher	Year						
	22.1.	1.   V. Gecevska		Engineering Economics	Faculty of Mechanical Engineering, UKIM, Skopje	2010						
		2.	D. Bojadzhioski	Enterprise Economics	Economic Faculty Skopje	1999						
		3.										
		Additional literature										
		Order No.	Author	Title	Publisher	Year						
	22.2.	1.	Michael R. Baye	Managerial Economics & Business Strategy	McGraw-Hill College	2007						
		2.										
		3.										

Annex No.3 Program of the Course			e - first cycle studies	
1.	Title of th	e Course	City public transport	
2.	Code		2MF109712	
3.	Study Pro	gram	Transport, Organization and Logistics	

4.	Organizer of the study program (unit or institute, Faculty, department)		University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica							
5.	Cycle (first, second and third cycle)	Fir	First cycle							
6.	Academic year / semester	Th	ird/fifth	7.	Number credits	of ECTS	4			
8.	Professor (s)	As	si. Prof. Zlatko	V. S	Sovreski, P	h.D				
9.	Requirements for enrollment t Course	he No								
10.	<ul> <li>Purposes of the curriculum (competencies): <ul> <li>(Introducing students to the organization of work in the public urban passenger transport, Acquired competence: ability to organize and to ensure the operation of public passenger transport in urban areas, introducing students to the methodology of planning or preparation of studies for public urban passenger transport. Acquired competence: Ability to approach to the preparation of studies or graduate for public urban passenger transport).</li> <li>Contents of the course program:</li> <li>Role and importance ofcity public transport today, Types and classification of public city transport. Flexible city public transport, organization of city public passenger transport in today's cities (ownership, regulation, financing), line transport (types and characteristics of lines and networks ofcity public passenger transport ). Subsystem of transportation demand. Subsystem of transportationoffer, Indicators of utilization level and work performed on the line of city public passenger transport. Creating timetable, disruption of timetable and measures for removing these disruptions, production volume and productivity indicators, tariff systems and billing systems, Innovative Technologies in city public passenger transport, public passenger transport, planning,</li> </ul> </li> </ul>									
	limitations, analysis of the enviro and evaluation of the condition, models, Types and features of ci in city public passenger transpor transport, bill of costs, evaluation	Forecast ty publi t, Qualit	t models for tr c passenger tra cy of service in	ansp nspc	ort needs a ort, Innovat	nd calibrat	ion			
12.	Learning methods:			_		_				
10	Lectures, Laboratory exercises, e	e-learnir	0	and to	eam project	ts, consulta	tions.			
13.	Total available time		120 hours							
14.	Distribution of available time		2+1+1							
15.	Forms of teaching / learning activities	15.1.	lectures / the contact teach e-teaching	ning,	,	2				
		15.2.	theoretical a exercises,	nd p	oractical	1				

					e-exams, prepara independent sem work					
16.	Other	forms of	f activities	16.1.	Project tasks					
				16.2.	Individual tasks		1			
				16.3.	Home learning					
17.		od of asse				-				
	17.1.		oral exams			70				
	17.2.	Semina and/or		ect - pr	esentation: written	n 10				
	17.3.		and participati	on		20				
18.		-	riteria (points /		o 50 points		e)(F)			
10.	score)		iteria (points /		rom 51 to 60 points		, , ,			
	score				rom 61 to 70 points		$\frac{(L)}{\text{ven}}$ (D	)		
					rom 71 to 80 points		$\frac{\text{ven}}{\text{ght}}$ (C)	)		
					rom 81 to 90 points		ne) (B)			
					rom 91 to 100 point	· · ·	$\frac{\operatorname{ne}(\mathbf{B})}{\operatorname{en}(\mathbf{A})}$			
19.	Signa	ture reau	irement and					n 42 points		
	Signature requirement and passing the final exam				60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activities and					
	pussing the multivaria				attending of lectures and discussions					
20.	Langu	lage of te	eaching / study		Macedonian					
21.			nitoring the qua	lity S	elf-evaluation					
22.	of tea Litera									
22.	Litera	1	11.4							
			ed literature							
		Order No.	Author	Ti	tle	Publishe	er	Year		
		1.	V. Vuchic	UI	RBAN TRANSIT:	John W	illey &	2005		
				-	perations,	Sons,Inc	с,			
					anning and	USA				
					onomics,		-			
	22.1.	2.	Zl.Sovreski		chnology	Univers		2003		
					el Cells:	Ss. Cler				
					atures and	Ohridsk	1 -			
				-	portunity for	Bitola				
					plication in JGPP the Republic.					
					acedonia					
		3.		111						
			nal literature							
		Order	Author		Title	Publisher	•	Year		
		No.						1 Cal		
	22.2.	1.			URBAN	John Wil	lev &	2005		
		1.	V. Vuchic		TRANSIT:	Sons,Inc,	•	2005		
					Operations,	20110,1110,				
1					Planning and					

			Economics,		
	2.	N. Krstanosvki	Public City Transport	University "Ss. Cyril and Methodius " Skopje	2001
	3.				

Ann	nex No.3	Program of the Course	- first cycle studie	5						
1.	Title of t	he Course	Theory of movement of motor vehicles							
2.	Code		2MF109212							
3.	Study Pr	ogram	Transport organiza	ation	and logistics					
4.	Organiz	er of the study program	University Goce D	)elce	ev - Stip					
	(unit or i	institute, Faculty,	5		engineering-Vinica					
	departm	ent)	Department of Tra logistics	nspo	ort organization and					
5.	Cycle (fi cycle)	rst, second and third	First cycle							
6.	•	c year / semester	Third/sixth7.Number of credits8							
8.	Professo	r (s)	Assi. Prof. Zlatko	V. S	ovreski, PhD					
9.	Require	ments for enrollment	/							
	the Cour	se								
11.	Purposes of the curriculum (competencies): Introduction to the longitudinal dynamics - performance, and transverse dynamics - stability and handling of motor vehicles.Content of the course program:13. Basic terms, types of wheels and rolling, coefficient of rolling resistance, coefficient of adhesion, towing characteristic of the wheel, forces which act 									
12.	Learning	g methods: lectures, tutori	als							

13.	Total	available time		216		
14.	Distri	bution of available time		3+2+2 / per week		
15.	8 8			lectures / theoretical	-	3
	activi	ties		contact teaching,		
				e-teaching		
			15.2.		tical	2
				exercises,	_	
				e-exams, preparation		
				independent seminar	•	
1(		C	1(1	work		11
16.	Utner	forms of activities	16.1.	Project tasks		1hours
			16.2.	Individual tasks		1hours
			16.3.	Home learning		hours
17.	Metho	od of assessment			-	
	17.1.	Tests / oral exams			70 p	ooints
	17.2.	Seminars (paper / proj and/or oral)	ject - J	presentation: written	10 p	ooints
	17.3.	Activity and participat	ion		20 p	oints
18.	Asses	sment Criteria (points /		up 50 points	5(fiv	e) (F)
	score)	)		51 to 60 points	6(six	(E)
				61 to 70 points	7 (se	ven) (D)
				71 to 80 points		ght) (C)
				81 to 90 points	,	ne) (B)
				91 to 100 points	· · · ·	en) (A)
19.	0	ture requirement and		60% of pre-exam activit		
	passir	ng the final exam		points from 2 midterm e		1 0
	т	e, 1, /, -		and attending of lectures	s and c	liscussions
20.	0	age of teaching / study		Macedonian		
21.	Metho of tea	od of monitoring the qua ching	ality	Self-evaluation		

22.	Litera	ture								
		Required literature								
		No.	Author	Title	Publisher	Year				
		1.	Д. Данев	Теорија на	Машински					
				движењето на	факултет					
				моторните возила	Скопје					
	22.1.	2.	М. Ќосевски	Збирка задачи од	Машински					
	22.1.			теорија на движење	факултет					
				на моторните	Скопје					
				возила						
		3.	Драги Данев, М.	Упатство за	Машински					
			Ќосевски	изработка на	факултет					
				влечна пресметка	Скопје					

				на моторните						
				возила						
		Additional literature								
		No.	Author	Title	Publisher	Year				
	22.2.	1.								
		2.								
		3.								

Ann	nex No.3	Program of the Cou	rse - fi	rst cycle studie	S			
1.	Title of t	he Course	(	<b>Derations Rese</b>	arch	l		
2.	Code			MF106312				
3.	Study Pr	ogram	Γ	ransport, organi	zatio	n and log	gistics	
4.	Organize	er of the study progra		Iniversity Goce				
		nstitute, Faculty,	F	aculty of mecha	nical	enginee	ring-Vinic	a
	departm	ent)		Department of tra	anspo	ort, organ	ization an	d
5.	Cycle (fi cycle)	rst, second and third	F	irst cycle				
6.	Academi	c year / semester	L	`hird / sixth	7.	Number credits		6
8.	Professo	r (s)	A	ssi. Prof. Nikoli	inka	Doneva,	PhD	•
9.	Require	nents for enrollment	t <b>he</b> n	0				
	Course							
10.	program	s of the curriculum (con ning and its graphical i in the field of transpor	nterpro	,		iction to iod, a me		lving
11.		of the course progran						
		ear programming; 2. D	-	-		-		
		ing techniques; 5.Inver						n
	±	sses, 8. Models waiting	-				ory; 11.	
12.		factor decision. 12. Me g methods:		analytic merar	cny j	brocess		
<u>12.</u> <b>13.</b>		ailable time		156 hours				
13.		tion of available time		2+2+1/per	weel	7		
15.		f teaching / learning	15.1.	<b>^</b>			2	
	activities			contact teach				
				e-teaching				
			15.2.	theoretical a	nd p	ractical	2	
				exercises,				
				e-exams, pre				
				independent	semi	nar		
				work				

16.	Other	forms of activities	16.1.	Project tasks		Hours
			16.2.	Individual tasks		1 Hours
			16.3.	Home learning		hours
17.	Metho	od of assessment				
	17.1.	Tests / oral exams			70 p	ooints
	17.2.	Seminars (paper / proj and/or oral)	ject - pi	resentation: written	10 p	points
	17.3.	Activity and participat	ion		20 p	oints
18.	Assess	sment Criteria (points /	ι	up 50 points	5(fiv	re) (F)
	score)		5	51 to 60 points	6(six	(E)
			(	61 to 70 points	7 (se	even) (D)
			7	71 to 80 points	8 (ei	ght) (C)
			8	81 to 90 points	9 (ni	ne) (B)
			ç	91 to 100 points	10 (t	en) (A)
19.	Signa	ture requirement and	e	50% of pre-exam activi	ties or	: minimum 42
	passin	ig the final exam	I	points from 2 midterm	exams	, project activities
			8	and attending of lecture	s and	discussions
20.	Langu	age of teaching / study	I	Macedonian language		
21.	Metho	od of monitoring the qua	lity S	Self-evaluation		
	of tea	ching	-			

22.	Litera	ture						
		Requ	ired literature					
		No.	Author	Title	Publisher	Year		
	22.1.	2.1.       1.       DanijelaTadic PhD, MilijaSuknovic PhD, GordanaRadojevic M.A., VukicaJovanovic       Operacionaistrazivanja       Izdavackice arzaindustri imenadzme plus, Krusevac         2.       2.       .       .         3.       .       .       .         Additional literature         No.       Author       Title       Publisher		- ·	k			
		No.	Author	Title	Publisher	Year		
	22.2.	1.						
		2.						
		3.						

Annex No.3	Program of the Course - first cycle studies
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1.	Title of the Course	Pr	oject Manager	nen	t	
2.	Code	2N	/IF107112			
3.	Study Program	Tr	ansport, Organi	zatio	on and Logistics	
4.	Organizer of the study program (unit or institute, Faculty, department)		niversity "Goce aculty of Mecha		cev"- Stip. Il Engineering -Vir	nica
5.	Cycle (first, second and third cycle)	Fi	rst cycle			
6.	Academic year / semester	Th	ird/fifth	7.	Number of ECT credits	<b>S</b> 4
8.	Professor (s)	As	si. Prof. Misko	Dzi		
9.	<b>Requirements for enrollment the</b> <b>Course</b>	No	)			
10.	<b>Purposes of the curriculum (comp</b> Project Management. Learning how understanding project flowcharts. Us and evaluation reports. Introduction management are also covered.	to io nder	dentify and scher standing and pr	edul odu	cing critical path p	lanning
11.	<ul> <li>Contents of the course program:</li> <li>1. What is a project and project</li> <li>2. Defining the tasks, defining the tasks, defining the tasks of tasks of the tasks of task</li></ul>	the r	-	ect 1	nanager and his tea	ım
	<ol> <li>Defining the project</li> <li>Network planning</li> <li>Estimating the activities</li> </ol>					
	7. Defining calendars and resou	irce	availability.			
	8. Determining critical paths - I	PER	T and GANTT	diag	grams	
	9. Preparing a project plan					
	10. Controlling schedule, budget	and	l scope			
	11. Management of the project					
	12. Evaluating and reporting on		-			
12.	<b>Learning methods:</b> Interactive teac projects, consultations and self-study	-	g, exercises, ind	ivid	ual and/or team wo	ork on
13.	Total available time	-	120 hours			
14.	Distribution of available time		2 +1 +1			
15.	Forms of teaching / learning 15 activities	5.1.	lectures / theo contact teach		<b>cal</b> - 2	

				e-teaching		
			15.2.	theoretical and pract	ical	1
				exercises,		
				e-exams, preparation	of	
				independent seminar		
				work		
16.	Other	forms of activities	16.1.	Project tasks		
		-	16.2.	Individual tasks		1
		· · · · · · · · · · · · · · · · · · ·	16.3.	Home learning		
17.	Meth	od of assessment		·		
	17.1.	Tests / oral exams			70 p	oints
	17.2.	Seminars (paper / projec and/or oral)	t - pr	esentation: written	10 p	oints
	17.3.	Activity and participation	1		20 pc	oints
18.	Asses	sment Criteria (points /	u	p 50 points	5(fiv	e) (F)
	score)	)		1 to 60 points	6(six	) (E)
			6	1 to 70 points	7 (se	ven) (D)
			7	1 to 80 points	8 (eig	ght) (C)
			8	1 to 90 points	9 (nii	ne) (B)
				1 to 100 points		en) (A)
19.	0	ture requirement and		0% of pre-exam activiti		
	passir	ng the final exam		rom 2 midterm exams, p	•	
				ttending of lectures and	discus	ssions
20.	Lang	uage of teaching / study	N	Aacedonian language		
21.		od of monitoring the qualit	y S	elf-evaluation		
	of tea	cning				

2. Litera	ature				
	Require	ed literature			
	Order No.	Author	Title	Publisher	Year
22.1.	1.	M. R. Djuricic, R. Bojkovic	Project Management	ICIM +	2008
	2.				
	3.				
	Additio	nal literature		I	
	Order No.	Author	Title	Publisher	Year
22.2.	1.	V. Donev, R. Polenakovik	Project Management and MS Project	Sistem+	2001
	2.				
	3.				

Ann	ex No.3	3	Drogrom of the Cou	maa fi	at analo studios					
			Program of the Cou	irse - Il	rst cycle studies	•				
1.	Title o	of the	e Course	D	ynamics of moto	or vel	nicles			
2.	Code			21	2MF109912					
3.	Study	Pro	gram	Tr	Transport, Organization and Logistics					
			of the study program	n III	University "Goce Delcev"- Stip,					
4.	(unit o depar		stitute, Faculty,		culty of Mechan		-		a	
5.			t, second and third	Fi	rst cycle					
6.	Acade	emic	year / semester	3/3	sixth	7.	Numbe ECTS		4	
8.	Profes	sor	(s)	As	ssi. Prof. Elenior	Niko	olov, PhI	)		
9.	Requi	rem	ents for enrollment t		ternal combustion					
	Cours Purpo	-	of the curriculum (co	mneter	ncies): Intro	oduct	ion to th	e dynamic	s of	
	_		cles, drive, driving res	_				•		
10.			asticity, comfort and s						-	
			inear model of vehicle							
			of the course program							
			namics - definition, dr		iving resistance.	Driv	ing char	acteristic o	of the	
					omfort and safety criteria, The equations of motion,					
11.			nctions, SMER dynam		-		-			
			management, Tilting of							
			t's method, Virtual w							
			nt, Tires.	, 24	88	,				
10			methods:							
12.		0	analitical exercises, in	dividua	l and team proje	cts, c	onsultati	ions.		
13.			lable time		120 hours	,				
14.			on of available time		2+1+1					
			eaching / learning	15.1.	lectures / theor	retica	al -			
	activit		8		contact teachin			2		
					e-teaching	-87				
1.5				15.2.	theoretical and	l pra	ctical			
15.					exercises,	•				
					e-exams, prepa	arati	on of	1		
					independent se					
					work					
	Other	forr	ns of activities	16.1.	Project tasks					
16.				16.2.	Individual tasl			1		
				16.3.	Home learning	8				
	Metho	od of	assessment							
	17.1.	Tes	ts / oral exams				70 p	oints		
17.	17.2.		ninars (paper / proje l/or oral)	ect - pr	esentation: writ	ten	10 p	oints		
	17.3.		ivity and participation	n			20 pc	nints		
	1/.J.	Att	ivity and participation	011			20 pt	51115		

	Asses	sment Cr	iteria (points /	up 50 points	5(five) (F)	
	score)		<b>`</b>	51 to 60 points	6(six) (E)	
10	-			61 to 70 points	7 (seven) (D)	
18.				71 to 80 points	8 (eight) (C)	
				81 to 90 points	9 (nine) (B)	
				91 to 100 points	10 (ten) (A)	
	Signa	ture requ	irement and	60% of pre-exam activitie	es or minimum 42	points
19.	passir	ng the fina	al exam	from 2 midterm exams, p	roject activities an	d
		-		attending of lectures and	discussions	
20.	Lang	lage of te	aching / study	Macedonian language		
0.1	Metho	od of mon	itoring the quality	Self-evaluation		
21.	of tea					
	Litera	ature	·			
		1	d literature			
		Order				
		No.	Author	Title	Publisher	Year
		110.			Fakulta	2008
		1.	F.Frantisek	Dinamika na vozikla	dopravní,	2000
					ČVUT, Praha	
					Avtomobilov	2003
	22.1.			Avtomobilov tehnicki	tehnicki	
		2.	F.Frantisek	priracnik, Prague 2003	priracnik,	
22.					Prague	
22.			J. First a kol.,		Fakulta	2008
			Zkoušeníautomobilů	Zkoušeníautomobilů a	dopravní,	
		3.	a motocyklů,		ČVUT, Praha	
			Fakulta dopravní,	motocyklů	2008	
			ČVUT, Praha 2008			
		Addition	nal literature			
		Order	Author	Title	Publisher	Year
		No.				
	22.2.	1.				
		2.				
		3.				
		э.				

Anı	nex No.3	Program of the Course	- first cycle studies
1.	Title of t	he Course	Supply chain management
2.	Code		2MF106412
3.	Study Pr	rogram	Transport, Organization and Logistics

4.	Organizer of the study program (unit or institute, Faculty, department)		University Goce Delcev - Stip Faculty of mechanical engineering-Vinica					
5.	Cycle (first, second and third cycle)	1 st	cycle					
6.	Academic year / semester	3 rd	$3^{rd} / 6^{th}$ <b>7.</b> Number of credits $4$					
8.	Professor (s)	Pr	ofessor Boris k	Krstev				
9.	Requirements for enrollment t Course	the no	ne					
10.	<b>Purposes of the curriculum (co</b> the supply chain.	ompeter	ncies): Introdu	ction	to the tool	s for managing		
11.	Content of the course program 1. Introduction to supply ch		nagement					
	2. Supply chain management	nt in inc	lustrial compar	nies				
	3. Supply of raw materials							
	4. Managing transport							
	5. Managing repositories							
	6. Order Process							
	7. Optimizing orders							
	8. Management of raw mate	erials in	the production	1				
	9. Optimizing the production	on proce	ess					
	10. Delivery Process							
	11. Optimizing the delivery	process						
	12. Managing inventory.							
12.	Learning methods: Lecturing, o	exercise	es					
13.	Total available time	exercise	156					
13. 14.	Total available time Distribution of available time		156 2+2+1/ per			)		
13.	Total available time	exercise	156 2+2+1/ per lectures / the contact teach	oreti		2		
13. 14.	Total available time Distribution of available time Forms of teaching / learning		156 2+2+1/per lectures / the contact teach e-teaching theoretical an	oreti ling, nd	<b>cal -</b>			
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/per lectures / the contact teach e-teaching theoretical an practical exe	oreti ling, nd rcise	s,			
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/per lectures / the contact teach e-teaching theoretical an practical exe e-exams, pre independent	oreti ling, nd rcise para	s, tion of			
13. 14.	Total available time Distribution of available time Forms of teaching / learning	15.1.	156 2+2+1/ per lectures / the contact teach e-teaching theoretical an practical exe e-exams, pre	oreti ning, nd rcise para semi	s, tion of nar			

			16.3.	Home learning	h	ours
17.	Meth	od of assessment				
	17.1.	Tests / oral exams			70 poir	nts
	17.2.	Seminars (paper / proj and/or oral)	ect - pr	resentation: written	10 poir	nts
	17.3.	Activity and participati	ion		20 poin	ts
18.	Asses	sment Criteria (points /	υ	ıp 50 points	5(five)	(F)
	score)		5	51 to 60 points	6(six) (	E)
			6	61 to 70 points	7 (sever	n) (D)
			7	'1 to 80 points	8 (eight	t) (C)
			8	81 to 90 points	9 (nine)	) (B)
				1 to 100 points	10 (ten)	
19.	Signa	ture requirement and	6	50% of pre-exam activi	ties or m	inimum 42
	passir	ng the final exam	-	points from 2 midterm		5
			a	and attending of lecture	s and dis	scussions
20.	Lang	uage of teaching / study	Ν	Macedonian		
21.	Metho of tea	od of monitoring the qua ching	lity S	Self-evaluation		

•	Litera	ture				
		Requ	ired literature			
		No.	Author	Title	Publisher	Year
	22.1.		Douglas M. Lambert, James R Stock, Lisa M ellram	Fundamentals of logistics management		2000
_			tional literature			
		No.	Author	Title	Publisher	Year
	22.2.	1.				
		2.				
		3.				

Anr	nex No.3	<b>Program of the Course</b>	- first cycle studies		
1.	Title of the	e Course	Maintenance of motor vehicles		
2.	Code		2MF109312		
3.	Study Pro	gram	Transport, Organization and Logistics		
4.	-	of the study program stitute, Faculty, nt)	University Goce Delcev-Stip Faculty of mechanical engineering -Vinica		
5.	Cycle (firs cycle)	t, second and third	First cycle		

6.	Academic year / semester	]	Fo	urth / seventh	7.	Number credits	r of ECTS	8
8.	Professor (s)		As	si. Prof. Elenior	Niko	olov, PhI	)	
9.	<b>Requirements for enrollment t</b> <b>Course</b>	he ]	No	ne				
10.	<b>Purposes of the curriculum (co</b> Students have to gain theoretical motor vehicles;				e in t	he issue	of mainten	ance of
11.	<b>Contents of the course program</b> Vehicles as objects of maintenan elements of the technical program places, maintenance technology, diagnostic elements etc.	ice, pa n, fac	ili	ties for maintena	ance,	organiza	ation of wo	rking
12.	Learning methods: Lectures, Analitical exercises, individual and team projects, consultations.							
13.	Total available time		Τ	216 hours	, -			
14.	Distribution of available time			3 +2 +2				
	Forms of teaching / learning activities	15.1	l.	lectures / theor contact teachin e-teaching		al -	3	
15.				2. theoretical and practical exercises, e-exams, preparation of independent seminar work			2	
	Other forms of activities	16.1		Project tasks			1	
16.		16.2 16.3				1		
	Method of assessment							
	17.1.   Tests / oral exams					70		
17.	17.2. Seminars (paper / proje and/or oral)	ect - p	presentation: written		10			
	17.3. Activity and participation	on				20		
	Assessment Criteria (points /		to	50 points		5(fiv	e)(F)	
	score)		from 51 to 60 points		6(six	/ 、 /		
18.				om 61 to 70 poin		7 (se	ven) (D)	
10.				om 71 to 80 poir			ght) (C)	
				om 81 to 90 poir		,	ne) (B)	
				om 91 to 100 po		,	en) (A)	
10	Signature requirement and passing the final exam			0% of pre-exam				
19.				om 2 midterm ex				ind
20	Language of teaching / study			tending of lectur lacedonian	res ai	na aiscus	ssions	
20.		1.4						
21.	Method of monitoring the qual of teaching	lity	S	elf-evaluation				
22.	Literature							

		Required	l literature						
	22.1.	Order No.	Author	Title	Publisher	Year			
		1.	Papic, V.	Introduction to Technology maintenance of transport vehicles	Traffic Engineering, University of Belgrade,	1995			
		2.	Duboka, D.	Maintenance of motor vehicles	Faculty of Mechanical Engineering, University of Belgrade	1986			
		3.	Jankovic, D.	Motor vehicles	Faculty of Mechanical Engineering, University of Belgrade	1993			
		Additional literature							
		Order No.	Author	Title	Publisher	Year			
	22.2.	1.							
		2.							
		3.							

Anr	nex No.3	Program of the Course	- first cycle studies	5				
1.	Title of t	he Course	Quantitative methods in business decision making					
2.	Code		2MF106512					
3.	Study Pr	ogram	Transport, Organi	zatio	on and Logistics			
4.	0	er of the study program institute, Faculty, ent)	University "Goce Delcev" - Stip Faculty of Mechanical Engineering					
5.	Cycle (fi cycle)	rst, second and third	1 st cycle					
6.	Academi	c year / semester	Fourth / seventh7.Number of credits8					
8.	Professo	r (s)	Professor Zoran Despodov, PhD					
9.	Require the Cour	nents for enrollment se	Mathematics1 and Mathematics 2					
10.	Purposes of the curriculum (competencies): Introduction to quantitative methods of business decision making and its application to solve specific problems.				ethods of			

11.	Content of the course program	n:						
	Fundamentals of the theory of d		-making, analysis of th	e decis	sion-making			
	process, risk analysis, new appro			0				
	decision making, group decision		•					
12.			omputer presentation, discussions, simulations,					
	study of practical cases, and pre			, , ,				
		1	1 1					
13.	Total available time		216					
14.	Distribution of available time		3+2+2/ per week					
15.	Forms of teaching / learning	15.1.	lectures / theoretical	-	3			
	activities		contact teaching,					
			e-teaching					
		15.2.	theoretical and prac	tical	2			
		exercises,						
	e-exams, preparat							
			independent seminar					
1(		1/1	work		1.1			
16.	Other forms of studying activities16.1.Project tasks				1 hours			
	activities	16.2.	Individual tasks		1 hours			
					hours			
		<b>16.3.</b> Home learning						
17.	Method of assessment							
-	17.1. Tests / oral exams			70 p	oints			
	17.2. Seminars (paper / proj	iect - ni			oints			
	and/or oral)	jeet pi		10 P	011105			
	17.3. Activity and participat	,			20 points			
18.	Assessment Criteria (points /		1p 50 points	-	e) (F)			
	score)		51 to 60 points		(E)			
		· · · · · · · · · · · · · · · · · · ·			$\frac{y(2)}{ven}$ (D)			
			71 to 80 points	8 (eight) (C)				
		· · · · · · · · · · · · · · · · · · ·			ne) (B)			
	<b>_</b>				en) (A)			
19.	Signature requirement and	6	50% of pre-exam activit	ties or	minimum 42			
	passing the final exam	ľ	points from 2 midterm e	exams,	, project activities			
			and attending of lecture	s and o	discussions			
20.	Language of teaching / study	Ν	Macedonian					
21.	Method of monitoring the qua	lity S	Self-evaluation					
	of teaching	-						

22.	Literature									
		Requ	Required literature							
	22.1.	No.	Author	Title	Publisher	Year				
		1.	Zoran Despodov	Teorija na odluki (internal script)	FPTN - Shtip	2009				

Additional literature								
No.	Author	Title	Publisher	Year				
1.	Cupic,M,.Tummala,V.M .R,. Suknovic,M	Odlucivanje: Formalni pristup	FON, Beograd	2003				
2.	Manasijevič,D., Živković,D.	Zbirka zadataka iz teorije odlučivanja	TF-Bor	2005				
3.	Cupic,M. Suknovic,M.	Višekriterijumsko odlučivanje	Univerzitet Braća Karić	1994				
	1.       2.	<ol> <li>Cupic,M,.Tummala,V.M .R,. Suknovic,M</li> <li>Manasijevič,D., Živković,D.</li> </ol>	1.Cupic,M,.Tummala,V.M .R,. Suknovic,MOdlucivanje: Formalni pristup2.Manasijevič,D., Živković,D.Zbirka zadataka iz teorije odlučivanja3.Cupic,M. Suknovic,M.Višekriterijumsko	1.Cupic,M,.Tummala,V.M .R,. Suknovic,MOdlucivanje: Formalni pristupFON, Beograd2.Manasijevič,D., Živković,D.Zbirka zadataka iz teorije odlučivanjaTF-Bor3.Cupic,M. Suknovic,M.VišekriterijumskoUniverzitet				

1.       Title of the Course       Modern transport technologies         2.       Code       2MF109412         3.       Study Program       Transport, Organization and Logistics         4.       Organizer of the study program (unit or institute, Faculty, department)       University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica         5.       Cycle (first, second and third cycle)       First cycle	he Course -	Annex No.3								
2.       Code       2MF109412         3.       Study Program       Transport, Organization and Logistics         4.       Organizer of the study program (unit or institute, Faculty, department)       University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica         5.       Cycle (first, second and third cycle)       First cycle         6.       Academic year / semester       Fourth/seventh       7.         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D         9.       Requirements for enrollment the Course       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)         11.       Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain		T:41	1							
3.       Study Program       Transport, Organization and Logistics         4.       Organizer of the study program (unit or institute, Faculty, department)       University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica         5.       Cycle (first, second and third cycle)       First cycle         6.       Academic year / semester       Fourth/seventh       7.         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D       6         9.       Requirements for enrollment the Course       No       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)       Transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribu system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain					ecnnologies					
4.       Organizer of the study program (unit or institute, Faculty, department)       University "Goce Delcev"- Stip, Faculty of Mechanical Engineering -Vinica         5.       Cycle (first, second and third cycle)       First cycle         6.       Academic year / semester       Fourth/seventh       7.       Number of ECTS       6         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D       6         9.       Requirements for enrollment the Course       No       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)       11.         11.       Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribu system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain					· 1 T · /·					
(unit or institute, Faculty, department)       Faculty of Mechanical Engineering -Vinica         5.       Cycle (first, second and third cycle)       First cycle         6.       Academic year / semester       Fourth/seventh       7.       Number of ECTS credits       6         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D       6         9.       Requirements for enrollment the Course       No       6         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)       11.         11.       Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain transport system in traffic system, and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain transport in the students in traffic system in the area of transport in the students in transport in the students in the students in the students in tran										
department)       Image: Constraint of the c	0		4.		1 /					
5.       Cycle (first, second and third cycle)       First cycle         6.       Academic year / semester       Fourth/seventh       7.       Number of ECTS credits       6         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D       9         9.       Requirements for enrollment the Course       No       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)       11.         11.       Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain transport system in traffic systems of the production capabilities of certain development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain development o	<b>y</b> ,			/ • /	al Engineering - Vinica					
6.       Academic year / semester       Fourth/seventh       7.       Number of ECTS credits       6         8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D       9.         9.       Requirements for enrollment the Course       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)         11.       Contents of the course program:         Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain	third I	5. Cycle (fir	5.	ycle (first, second and third First cycle						
8.       Professor (s)       Assi. Prof. Zlatko V. Sovreski, Ph.D         9.       Requirements for enrollment the Course       No         10.       Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)         11.       Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics or particular branches in traffic, Basic indicators of the production capabilities of certain transport in traffic system of the production capabilities of certain transport in traffic system.					,					
9.         Requirements for enrollment the Course         No           10.         Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)           11.         Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain	er I	Academio	6.	cademic year / semesterFourth/seventh7.						
Course10.Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)11.Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain	1	. Professor	8.	rofessor (s) Assi. Prof. Zlatko V.	Assi. Prof. Zlatko V. Sovreski, Ph.D					
<ul> <li>10. Purposes of the curriculum (competencies): (Introducing the students to modern Technologies - Integrated Transport Systems)</li> <li>11. Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain transport.</li> </ul>	ment the 1	Requiren	9.	equirements for enrollment the No	No					
<ul> <li>Technologies - Integrated Transport Systems)</li> <li>11. Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribu system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain</li> </ul>										
11. Contents of the course program: Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain development.			10.							
Technological change in the modern transport systems, the role and importance of certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain	i i	,								
certain types of transport in traffic systems, Technology reserves in transportation, logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribu system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain			11.							
logistics as a modern concept for the realization of transport processes, coordination cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain										
cooperation in transport, conveyor chains, Automatic Management, Transportation Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain										
Management System procedure in the carriage of goods in transport, freight distribut system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain	1	U			<b>1</b>					
system units ifor distribution of goods, packing products for distribution during transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain	•	-			<b>U</b> 1					
transport, pallet transport system, Basic qualitative changes in the area of transport i development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain						button				
development of transport technologies, technological and economic characteristics of particular branches in traffic, Basic indicators of the production capabilities of certain						in				
particular branches in traffic, Basic indicators of the production capabilities of certain	•	<b>_</b>			1					
	•	-								
Dranches in transport. Basic characteristics of certain types of frattic										
12. Learning methods:		2. Learning	12.	earning methods:						
Lectures, Laboratory exercises, e-learning, individual and team projects, consultatio	cises, e-learr	Lectures,		ectures, Laboratory exercises, e-learning, individual and	eam projects, consultati	ions.				
13. Total available time   156 hours		3. Total ava	13.	tal available time 156 hours						
14. Distribution of available time     2+2+1	time									

15.	Form: activit		ing / learning	15.1.	lectures / theoretical contact teaching, e-teaching	-	2		
				15.2.	theoretical and pract exercises, e-exams, preparation independent seminar work	n of	2		
16.	Other activit		forms of studying 16.1 les		Project tasks				
	activit	iles			Individual tasks		1		
				16.3.	Home learning				
17.		od of asses				T			
	17.1.	Tests / or	ral exams			70 p	oints		
	17.2.	Seminar and/or o		ect - pr	resentation: written	10 p	ooints		
	17.3.	Activity	and participation	on		20 p	oints		
18.	Assess	sment Cri	teria (points /	l	1p 50 points	5(fiv	(five) (F)		
	score)	)	-		51 to 60 points	6(six	(E)		
				(	61 to 70 points	7 (se	ven) (D)		
				7	71 to 80 points	8 (ei	ght) (C)		
				8	81 to 90 points	9 (ni	ne) (B)		
					91 to 100 points	,	en) (A)		
19.	-	gnature requirement and			60% of pre-exam activities or minimum 42 points				
	passir	ng the fina	l exam		from 2 midterm exams, project activities and				
20	<b>.</b>				attending of lectures and	discu	ssions		
20.	0	8	aching / study		Macedonian				
21.	Metho of tead		itoring the qual	lity S	Self-evaluation				
22.	Litera	ature							
		Require	d literature						
		Order No.	Author		Title	Pu	blisher	Year	
	22.1.	1.	R. Perisic,		Contemporary technology I. Transport integral systems transport	Bel trat Fac	iversity of Igrade ffic culty Igrade	1994	
		2.	B. Bogovic		Economics transport system	trat sys	onomics ffic tem greb	1984	

	3.	I. Markovic	Contemporary technology transport	Informer, Zagle1998. 1998	1998
	Addition	nal literature			
	Order No.	Author	Title	Publisher	Year
22.2.	1.	R. Perišić	Containerization in transport	Traffic Faculty Belgrade	1999
	2.				
	3.				

Ann	nex No.3	Program of the Course -	· first cycle studie	5				
1.	Title of t	he Course	Electronic Data	Inte	rchange			
2.	Code		2MF107312		8-			
3.	Study Pr	ogram	Transport, organi	zatio	on and logistics			
4.		er of the study program	University Goce					
	0	institute, Faculty,	Faculty of mecha			ica		
		epartment)						
5.	Cycle (fi	rst, second and third	1 st cycle					
	cycle)							
6.	Academi	ic year / semester	3 rd / 7 th 7.         Number of credits         4					
8.	Professo	r (s)	Assi. Prof. Ljubisha Nikolovski					
9.	Require	ments for enrollment the	none					
	Course							
10.		<b>Purposes of the curriculum (competencies):</b> Introducing the types of data processing methods, application areas of ERP, ERP Architecture.						
11.	-	Content of the course program:						
		erms and definition;						
	2. Types	of data processing;						
	3. Areas	of applying EDI;						
		ation and advantages of the	<b>1</b>					
		gineering of business procee	,					
		ecture and stages of develop	<b>L</b> '					
		ecture and development pha	systems;					
		ptual model of open EDI sy						
		onic operation;						
	10. Standards in the implementation of EDI;							
10	11. Intermediaries in EDI.							
12.	Learning	g methods: Lecturing, exer	cises					
12	Total ar	ailabla tima	120					
<u>13.</u> 14.		ailable time tion of available time	120 2+1+1/ por	THO CI	7			
14.	Distribu	uon of available time	2+1+1/ per	weel	K			

	r orms activit	s of teaching / learning ies	15.1.	lectures / theoretical		2
5	activit	165				
				contact teaching,		
			15.2.	e-teaching		
				theoretical and	1	
				practical exercises,		
				e-exams, preparatio		
				independent semina	r	
	work					
	Other forms of studying 1			Project tasks		hours
8	activities			Individual tasks		1 hours
			16.2.	Individual tasks		1 nours
			16.3.	Home learning		hours
		d of assessment				
1	17.1. Tests / oral exams			1		oints
1	17.2. Seminars (paper / project -			esentation: written	10 p	oints
		and/or oral)	_		_	
1	17.3.	Activity and participati	ion	20 pc		oints
<b>18.</b> <i>A</i>	Assess	ment Criteria (points /	ι	ıp 50 points	5(five) (F)	
s	score)		5	51 to 60 points	6(six) (E)	
			(	61 to 70 points	7 (seven) (D)	
			7	'1 to 80 points	8 (eig	ght) (C)
			8	81 to 90 points	9 (nine) (B)	
				1 to 100 points	10 (ten) (A)	
19. 8	Signature requirement and			50% of pre-exam activi		
1	passing the final exam			points from 2 midterm		
				and attending of lectures and discussions		
20. 1	Langu	age of teaching / study		Macedonian		
<b>21.</b> I	Metho	d of monitoring the qua	lity S	Self-evaluation		
	of teac	• -	-			

22.	Literature								
		Required literature							
		No.	Author	Title	Publisher	Year			
	22.1.	1.	Z. Nikolik	Elektronska razmena	FIM	2007			
				podatka	Krusevac				
		2.							
		3.							
		Additional literature							
		No.	Author	Title	Publisher	Year			
	22.2.	1.							
		2.							
		3.							

Ann	ex No.3									
		Program of the Co	urse - I	irst/second/thi	ra c	ycle studies	8			
1.	Title of th	e Course		fety in the traf	ffic					
2.	Code		2N	<b>IF110112</b>						
3.	Study Pro	gram	Tr	ansport, Orga	niza	tion and L	ogistics			
4.	Organizer	• of the study progra	m Ur	niversity "Goco	e Del	cev"- Stip				
	0	stitute, Faculty,		aculty of Mech		-	ring -Vin	ica		
5.	Cycle (firs cycle)	st, second and third	Fi	rst cycle						
6.	Academic	year / semester		rst / second 12/13	7.	Number of credits	of ECTS	6		
8.	Professor	(s)	As	s. Prof. Zlatko	<b>V.</b> S	Sovreski, P	h.D	•		
9.		ents for enrollment				,				
	Course									
10.	Purposes	of the curriculum (co	ompeter	ncies):						
	-	are acquainted with	-		с					
11.	Contents	of the course program	m:	•						
	Movemen	t in road turns, bypa	ussing, o	overtaking veh	icle,	braking pi	cocess, act	ive and		
	Movement in road turns, bypassing, overtaking vehicle, braking process, active and passive safety, time allocation, Types of accidents, records and statistics of									
	-	damage from traffic	• •	,				U.S.		
		ervice for traffic Saf								
		ment inspection tear								
		of the injured in trat				,		n of		
	-	ident, Procedure for		· •		· •				
		oftware packages			,	0	L	0		
12.	Learning									
	0	Laboratory exercise	s, e-lear	rning, individu	al ar	nd team pro	ojects,			
13.	Total avai	lable time		120 hours						
14.	Distributi	on of available time		2+1+1						
15.	Forms of	teaching / learning	15.1.	lectures / the	oret	ical -	2			
			1							
	activities	reaching / rear ning		contact teach	1102.					
	activities	cuching / icur ining		contact teach e-teaching	nng,					
	activities	cucining / icurining	15.2.	e-teaching	Ċ,		1			
	activities	cucining / icurning	15.2.	e-teaching theoretical an	Ċ,		1			
	activities	cucining / icurning	15.2.	e-teaching theoretical an exercises,	nd p	ractical	1			
	activities	cucining / icurning	15.2.	e-teaching theoretical an exercises, e-exams, pre	nd p para	ractical tion of	1			
	activities	cucining / icurning	15.2.	e-teaching theoretical an exercises, e-exams, pre- independent	nd p para	ractical tion of	1			
16.		ms of activities	15.2.	e-teaching theoretical an exercises, e-exams, pre	nd p para sem	ractical tion of	1			
16.				e-teaching theoretical an exercises, e-exams, pre- independent work	nd p para sem	ractical ation of inar	1			

17.								
	17.1.	Tests / o	oral exams			70 p	oints	
	17.2.	Semina and/or		- presentation: writte	en	10 p	oints	
	17.3.	Activity	and participation			20 points		
18.	Asses	sment Cr	riteria (points /	up 50 points	5	(five)	<b>(F)</b>	
	score	)		51 to 60 points		6	(six)	<b>(E)</b>
				61 to 70 points		7	(seven)	
				71 to 80 points	8	(eight)	(C)	
				81 to 90 points	9	(nine)	( <b>B</b> )	
10	<b>G</b> •		• • •	91 to 100 points		10	(ten)	(A)
19.	0	ture requng the fin	irement and	60% success from				
	passn	ig the fill	ai exaili	42 points from tw paper, attendance				
20.	Lang	nage of te	eaching / study	Macedonian	luics		(1505	
21.	0	0	nitoring the quality					
41.	of tea		intoring the quanty	Self-evaluation				
22.	Litera							
		Require	ed literature					
		Order	Author	Title	Title Pu		r	Year
		No.	Aution	The	14	011511	-1	
		1.		C - F - 4 F	C4	] 4		
			B. Ristic	Safety for auto transport		udent		
				enterprises		word, Skopje 1994		1994
					17.			1//
		2.	Zlatko V.		Or	igina	l	
			Sovreski	Traffic	pr	actica	1	1994 -
	22.1.			technical		ample	s	2012
				expertise in	ro	ad		
				road traffic-		offic		
				Expertise (Skilled		publi		
				findings and	Ma	acedo	nia	
		3.		opinions)				
		5.	RDragan SF	Safety	Fa	culty		1998
			Beograd	traffic		lgrad		1770
			Deograd	1,2,3	20	-8- 44	•	
				traffic				
		Additio	nal literature					
		Order No.	Author	Title	Pub	olisher	•	Year
	22.2.	1.						
			<b>B.Ristic</b>	Safety traffic		versit		2002
						Cleme	ent	
						idski		
					tech	nical		

			Faculty Bitola	
	2.			
	3.			

Ann	ex No.3	Program of the Course	e - first cycle studi	es				
1.	Title of th	e Course	Transport in con	tain	ers			
2.	Code		2MF110112					
3.	Study Pro	gram	Transport, Organization and Logistics					
4.	Organizer	r of the study program	University "Goce Delcev"- Stip,					
	(unit or in	stitute, Faculty,	Faculty of Mechai	nical	Engineering -Vinica			
	departme	•						
5.	•	st, second and third	First cycle					
	cycle)							
6.	Academic year / semester		Third/fifth	7.	Number of ECTS	4		
					credits			
8.	Professor		Assi. Prof. Zlatko	V. S	Sovreski, Ph.D			
9.	-	ents for enrollment the	No					
1.0	Course							
10.	-	of the curriculum (comp	etencies):Introduct	ion	to transport of goods i	n		
	containters							
11.		of the course program:		c				
		ry concepts of transport in						
		ers transport compared to						
		on, choice, labeling, packa						
		erminal, Railway containe						
		f terminals, Technology fo						
	application of transport containters, Techno-economic effects of the use of transport							
	containters	<b>9</b>						

12.		ing meth							
10				e-lear	ming, individual and te	am p	projec	ts, cons	ultations.
13. 14.		available	time available time		120 hours 2+1+1				
14.	Distri				2+1+1				
15.	Forms of teaching / learning activities			15.1	I. lectures / theoreti contact teaching, e-teaching	cal -		2	
				15.2	0	tion		1	
16.	Other	forms of	activities	16.1	1. Project tasks				
				16.2	2. Individual tasks			1	
				16.3	3. Home learning				
17.		od of asse							
	17.1. Tests / oral exams							oints	
	17.2.	and/or oral)			presentation: written		Ĩ	oints	
	17.3.	Activity	and participati	on			20 po	oints	
18.	Assessment Criteria (points /				up 50 points				
	score)	1			· · · · · · · · · · · · · · · · · · ·			(E)	
					61 to 70 points			ven) (D	,
					71 to 80 points			$\frac{\text{ght}}{(C)}$	
					•			$\frac{\text{ne}}{(B)}$	
10	Signa	tuno nogu	iromont and		<b>91 to 100 points</b>	witic		$\frac{\text{en}}{42}$ noin	to from two
19.	0	ig the fina	irement and		60% of pre-exam acti mid-term exams, sen			-	
	passi	ig the min			lectures and exercises		pupe	, atten	
20.	Langu	age of te	aching / study		Macedonian language				
21.	0	od of mor	itoring the qua	lity	Self-evaluation				
22.	Litera								
			d literature						
		Order No.	Author	1	Title	Pu	ıblish	er	Year
	22.1.	1.	Lj. Štipanik		Mechanization port and terminals	Ist Pu	ar coj ila	pies	1982
		2.	B. Dragovik		B. Dragoviḱ Transport Dock	Do	anspo ock Po inspor		1988

				maritime college Kotor 1988					
	3.	J. Vladic	Mechanization and technology reloading, FTN	FTN Novi Sad	2005				
	Additional literature								
	Order No.	Author	Title	Publisher	Year				
22.2.	1.								
	2.								
	3.								

Ann	nex No.3	Program of the Course -	· first cycle studies	5				
1.	Title of t	he Course	Product Life Cycle Management					
2.	Code		2MF107412					
3.	Study Pr	ogram	Transport, Organi	izatio	on and Logistics			
4.	0	er of the study program	University Goce		<b>1</b>			
	(unit or i departm	nstitute, Faculty, ent)	Faculty of mecha	nical	engineering-Vinica			
5.	Cycle (fi cycle)	rst, second and third	1 st cycle					
6.	Academi	c year / semester	4 th / 7 th	7.	Number of credits4			
8.	Professo	r (s)	Professor Mikola	j Ku	zinovski, PhD			
9.	Require Course	nents for enrollment the	none					
10.	functions	s of the curriculum (comp of product lifecycle manage pt that ensures the sustaina	gement and an intro	oduct	tion to the advantages of			
11.								

	organizational units manufacturing, sales 5. Information lifecycl 6. Information system 7. Integration with othe	in the co s, marke e manag for PLM er applic panies an nanufact	I; cations; nd business benefits fro curing company;	opmer ivery);	nt, engineering,
	11. Strategy of product			of busi	ness strategy;
	12. E-Business and PLM	I. PLM	and PDM tools.		
12.	Learning methods: Lecturing,	exercise	es		
13.	Total available time		120		
14.	Distribution of available time	1	2+1+1/ per week		
15.	Forms of teaching / learning activities	15.1.	lectures / theoretical contact teaching, e-teaching theoretical and practical exercises, e-exams, preparatio independent seminal work	on of	2
16.	Other forms of studying	16.1.	Project tasks		hours
	activities	16.2.	Individual tasks		1 hours
		16.3.	Home learning		hours
17.	Method of assessment				
	17.1. Tests / oral exams			-	oints
	17.2. Seminars (paper / pro and/or oral)	ject - pr	resentation: written	10 p	oints
	17.3. Activity and participat	20 points			
18.	Assessment Criteria (points /		ıp 50 points		e) (F)
1	score)		51 to 60 points		(E)
1				17 (22)	v(n)(1)
			61 to 70 points		ven) (D)
		7	71 to 80 points	8 (ei	ght) (C)
		7 8		8 (eig 9 (ni	

19.	Signature requirement and passing the final exam	60% of pre-exam activities or minimum 42 points from 2 midterm exams, project activities and attending of lectures and discussions
20.	Language of teaching / study	Macedonian
21.	Method of monitoring the quality of teaching	Self-evaluation

22.	Litera	ture								
		Required literature								
		No.	Author	Title	Publisher	Year				
	22.1.	1.	Saaksvuori A., Immonen A.	Product Lifeycle Management	Springer- Verlag	2008				
		2.	Stark, J.	PLM: 21st century Paradigm for Product Realisation	Springer- Verlag	2004				
		3. Addit	tional literature							
		No.	Author	Title	Publisher	Year				
	22.2.	1.	Bernard A., Tichkiewitch S.	Design of Sustainable Product Life Cycles	ASpringer- Verlag	2008				
	<i>44.4</i> .	2.	Grieves, M.	PLM: Driving the Next Generation of Lean Thinking.	McGraw- Hill.	2009				
		3.								

Anr	nex No.3	Program of the Course -	· first cycle studies	5			
1.	Title of th	e Course	Quality manager	ment	t		
2.	Code		2MF106612				
3.	Study Pro	ogram	Production Engin	eerir	ng /		
	•		Transport, Organ	izatio	on and Logistics		
4.	Organize	r of the study program	University "Goce	Dele	cev" - Stip		
	(unit or in	nstitute, Faculty,	Faculty of Mechanical Engineering-Vinica				
	departme	ent)					
5.	Cycle (fir cycle)	st, second and third	1 st cycle				
6.	Academic	e year / semester	4 th / 3 rd	7.	Number of credits	6	
8.	Professor	( <b>s</b> )	Professor Mikola	j Ku	zinovski, PhD		
9.	Requirem	nents for enrollment the	none				
	Course						
10.	Purposes	of the curriculum (comp	etencies): Quality	man	agement in the mo	dern	
	organizati	on. Customer loyalty. Crea	ating a competitive	mar	ket organizations.	Role,	
	importanc	e and implementation of the	he ISO 9001 family	y of s	standards.		

11.	Content of the course program							
	1. Introduction to quality morganizations for competent	U	· <b>1</b> •	egic go	oal and utility			
	<ol> <li>Quality management system (general requirements related to the ISO 9001:2008 Quality Management System).</li> </ol>							
	3. Management resposibilit	y (item	5 of the standard ISO	9001:	2008).			
	4. Resource management (i	tem 6 o	of the standard ISO 900	01:200	08).			
	5. Production (item 7.1, 7.2	2 and 7.1	3 of the standard ISO	9001:2	2008).			
	6. Realization of the produce 9001:2008).	ct (see s	ection 7.4, 7.5 and 7.6	of the	e standard ISO			
	<ol> <li>Measurement, analysis a 9001:2008).</li> </ol>	nd impi	rovement (item 8 of th	e stand	lard ISO			
	8. Introducing the standard laboratories.	ISO 17	025, competence of te	sting a	and calibration			
	9. Introduction to ISO 2700	)1, Info	rmation Security Mana	ageme	nt Systems.			
	10. Introduction to ISO 1400	)1, Envi	ironmental Manageme	nt.				
	11. Introducing the standard	OHSA	S 18001 health and sat	fety m	anagement.			
	12. Introduction to ISO 2200	)0 Food	Safety Management S	System	1.			
12.	Learning methods: Lecturing,	exercise	28					
13.	Total available time		156					
	Distribution of available time		2+2+1 / per week					
15.	Forms of teaching / learning	15.1.	lectures / theoretica		2			
	activities		contact teaching,					
			e-teaching					
		15.2.	theoretical and		2			
			practical exercises,					
			e-exams, preparatio					
			independent semina	ır				
16	Other forms of studying	16.1.	work Project tasks		hours			
16.	Other forms of studying activities		hours					
		16.2.	Individual tasks		1 hours			
		16.3.	Home learning		hours			
17.	Method of assessment			1				
	<b>17.1.</b> Tests / oral exams			70 p	points			
	17.2. Seminars (paper / proj and/or oral)	ect - pr	esentation: written	10 p	points			
i				·				

	17.3. Activity and participation	l	20 points			
18.	Assessment Criteria (points /	up 50 points	5(five) (F)			
	score)	51 to 60 points	6(six) (E)			
		61 to 70 points	7 (seven) (D)			
		71 to 80 points	8 (eight) (C)			
		81 to 90 points	9 (nine) (B)			
		91 to 100 points	10 (ten) (A)			
19.	Signature requirement and	60% of pre-exam acti	vities or minimum 42			
	passing the final exam	points from 2 midterr	n exams, project activities			
		and attending of lectu	res and discussions			
20.	Language of teaching / study	Macedonian	Macedonian			
21.	Method of monitoring the quality of teaching	y Self-evaluation				

2.	Literature								
		Required literature							
		No. Author Title		Title	Publisher	Year			
		1.	Standardization institute of RM	ISO 17025, ISO 27001, ISO 14001, ISO 22000, ISO 18001	ISRM				
	22.1.	2.	Standardization institute of RM	Quality Management Systems – Requests (Identical to EN ISO 9001:2008)	ISRM	2010			
		3. Prof. d-r. Sc. Hrvoje Skoko		Upravljanje kvalitetotm	Sinergija, Zagreb	2000			
		4.	David Hoyle	Quality Systems Handbook (4th edition)	Butterworth- Heinemann, A member of the Reed Elsevier plc group	2001			
		Additional literature							
		No.	Author	Title	Publisher	Year			
	22.2.	1.							
		2.							
		3.							

Ann	Annex No.3 Program of the Course - first cycle studies				
1.	Title of t	he Course	<b>Occupational Safety and Health</b>		
2.	Code		2FP123212		
3.	Study Pr	ogram	Production Engineering /		
			Transport, Organization and Logistics		

4.	Organizer of the study program (unit or institute, Faculty, department)University Goce Delcev - Stip Faculty of mechanical engineering-Vinica						
5.	Cycle (first, second and third cycle)     First cycle						
6.	Academic year / semester	IV/VIII semester	7.	Number of credits		6	
8.	Professor (s)	Assistant Professo	or Dej	jan Mirakov	ski, Ph	D	
9.	<b>Requirements for enrollment</b> the Course	Enrolled semester	•				
10.	<b>Purposes of the curriculum (comp</b> Introducing to the fundamental prov Law, hazards and risks on the workp	isions of the Occup	oation	nal Safety an	d Heal	th	
11.	<ul><li>Content of the course program:</li><li>1. Introduction</li><li>2. Legislation in the field of Oc</li></ul>	· ·	and H	lealth			
	<ol> <li>Role of International Labour</li> <li>Occupational Risk Assessme</li> </ol>	C					
	5. Ergonomics						
	6. Injuries at work, etiological	factors for injuries	and o	occupational	disease	es	
	7. Gasses in working environm						
	8. Dust and measurement meth	ods of dust in the w	vorkii	ng environm	ent		
	<ol> <li>Fires, exogenous, endogenou procedures</li> </ol>	is fires, fire preven	tion a	and fire-fight	ting		
	10. Explosions, explosive mixtu	res of gas and air, t	echni	cal protectio	on meas	sures	
	11. Microclimate conditions, not	ise and vibrations in	n wor	king enviror	nment		
	12. Personal Protective Equipme rescue	ent, Rescue services	s and	plans for de	fense a	nd	
12.	Learning methods: – Lectures,						
	<ul> <li>theoretical and practi</li> </ul>	cal exercises,					
	– e-teaching,						
	<ul> <li>seminar work</li> </ul>						
	– consultation						
13.	Total available time	120 hours					
14.	Distribution of available time	2+1+1		1			
15.	15.	1. lectures / theo contact teach teaching					

16.	Forms of teaching / learning activities Other forms of activities	15.2. 16.1. 16.2. 16.3.	0		1	
17.	Method of assessment	10.5.	Tome rearining			
	17.1. Tests / oral exams			70 p	oints	
	17.2. Seminars (paper / proj and/or oral)	ect - p	resentation: written	10 p	points	
	17.3. Activity and participati	ion		20 points		
18.	Assessment Criteria (points /	ι	1p 50 points	5(five) (F)		
	score)	5	51 to 60 points	6(six) (E)		
		(	61 to 70 points		ven) (D)	
		7	71 to 80 points	8 (ei	ght) (C)	
		8	81 to 90 points	9 (ni	ne) (B)	
			91 to 100 points	, ,	en) (A)	
19.	Signature requirement and		50% success of all pre-e			
	passing the final exam	-	points from two mid-term exams, seminar			
			work and presence on le	ectures	and exercises	
20.	Language of teaching / study	1	Macedonian			
21.	Method of monitoring the qua of teaching	lity S	Self-evaluation			

Literature									
	Required literature								
	No.	Author	Title	Publisher	Year				
22.1.	1.	Dejan Mirakovski Marija Hadzi-Nikolova	Occupational Safety and Health ISBN 978-608-4504- 98-6	University Goce Delcev	2012				
	2.								
	3.								
	Additional literature								
	No.	Author	Title	Publisher	Year				
22.2.	1.	Bengamin O Ali	Fundamentals principles of Occupatinal Safety and Health	International Labour Office Geneva	2011				
	2.								
	3.								

Ann	ex No.3	Program of the Cou	rse - fi	rst cycle studie	S			
-								
1.		he Course		telligent trans	port	systems		
2.	Code			MF110212			• .•	
3.	Study Pr	0		ansport organiz			istics	
4.	-	er of the study progra		niversity Goce I		-		
		institute, Faculty,		aculty of mechan				
	departm	ent)	lo	epartment of Tr gistics	anspo	ort organ	iization and	1
5.	cycle)	rst, second and third	Fi	rst cycle	-			
6.	Academi	ic year / semester	Fo	ourth / eighth	7.	Numbo credits		4
8.	Professo	r (s)	A	ssi. Prof. Angel	Tase	vski, Ph	D	
9.	Requirer the Cour	nents for enrollment se	/					
10.		s of the curriculum (co	ompete	ncies): (Introdu	cing	the stude	ents to the	area as
		preparation for attenda			U			
	ec m	orld and in our country quipment as the basis ir odern transport system evelopment of modern	n functi s by ty	on of intense an pes of transport.	d opt	timal dev	velopment	
12.	Learning	g methods: Lectures, ex	vercise	s consultations	tuto	riale		
12. 13.		ailable time	ACICISC	120 hours	iuioi	1415		
13.		tion of available time		2+1+1 / per	r wee	k		
15.			15.1.	lectures / the			2	
15.	activities	8 8	13.1.	contact teach		cai -	2	
				e-teaching	5,			
			15.2.	theoretical ar	nd pr	actical	1	
				exercises,	<b>I</b>			
				e-exams, prej	parat	tion of		
				independent				
				work				
16.	Other for	rms of activities	16.1.Project taskshours					
			16.2.	Individual ta	sks		1 hours	
			16.3.	Home learnin	ng		hours	
17.		of assessment						
	17.1. T	ests / oral exams				70 p	oints	
		eminars (paper / proj 1d/or oral)	ect - pi	resentation: wr	itten	10 p	oints	

	<b>17.3.</b> Activity and participation		20 points
18.	Assessment Criteria (points /	up 50 points	5(five) (F)
	score)	51 to 60 points	6(six) (E)
		61 to 70 points	7 (seven) (D)
		71 to 80 points	8 (eight) (C)
		81 to 90 points	9 (nine) (B)
		91 to 100 points	10 (ten) (A)
19.	Signature requirement and	60% success from all p	re-exam activities i.e.
	passing the final exam	42 points from two mid	
		paper, attendance of lec	tures and exercises
20.	Language of teaching / study	Macedonian	
21.	Method of monitoring the quality	Self-evaluation	
	of teaching		

Liter	Literature									
	Requ	Required literature								
	No.	Author	Title	Publisher	Year					
22.1.	1.	R.Perisic	Modern transport technology 1	Faculty of Transport Beograd	1988					
22.1.	2.	R.Perisic	Container transport	Faculty of Transport Beograd	1999					
	3.	I.Markovic	Modern transport technology	Informator Zagreb	1998					
	Additional literature									
	No.	Author	Title	Publisher	Year					
22.2.	1.									
	2.									
	3.									

Anr	nex No.3 Program of the Course	e - first cycle studies
1.	Title of the Course	Marketing Management
2.	Code	2MF107512
3.	Study Program	Transport, Organization and Logistics
4.	Organizer of the study program	University "Goce Delcev"- Stip,
	(unit or institute, Faculty,	Faculty of Mechanical Engineering -Vinica
	department)	
5.	Cycle (first, second and third	First cycle
	cycle)	

6.	Academic year / semester	Fo	ourth/eighth	7.	Number of credits	ECTS	4	
8.	Professor (s)	As	Assi. Prof. Nikolinka Doneva, Ph.D					
9.	<b>Requirements for enrollment t</b> <b>Course</b>	he No	No					
10.	<b>Purposes of the curriculum (co</b> knowledge in the field of manage analysis and its dynamic and stim decisions which managers make, control.	ing the nulating	marketing activg influence on t	vities he co	, marketing er ompanies' wo	nvironm rk, marl	ent keting	
11.	Contents of the course program 1. 21st Century Marketing,	n:						
	2. Development of marketing	ng strate	egies and plans					
	3. Market research and data	collect	ing					
	4. Customer satisfaction, log		nd value					
	5. Consumer Market Resear	rch						
	6. Business markets analysi	S						
	7. Market segmentations							
	8. Brand Positioning & Mar	nageme	nt					
	9. Competition strategies							
	10. Product strategy							
	11. Services Design and Mar	nagemei	nt					
	12. Price Determination, Pric	ing Stra	ategies					
12.	Learning methods: Interactive t	-		cises	, individual ar	nd/or tea	ım work	
13.	on projects, consultations and inc <b>Total available time</b>	dividua	1 learning.					
14.	Distribution of available time		2 +1 +1					
15.	Forms of teaching / learning activities	15.1.	lectures / the contact teach e-teaching		<b>ical -</b> 2			
		15.2.	theoretical an exercises, e-exams, prej independent work	para	tion of			
16.	Other forms of activities	16.1.	Project tasks					
		16.2.	Individual ta	sks	1			

			16.3.	Home learning				
17.	Method of assessment							
	17.1.	Tests / oral exams	exams paper / project - presentation: written			70 points		
	17.2.	Seminars (paper / proje and/or oral)				10 points		
	17.3.	Activity and participation	)n	20 points				
18.	Assessment Criteria (points / up 50 points				5(five) (F)			
	score)			1 to 60 points	6(six) (E)			
			6	1 to 70 points	7 (seven) (D)			
			7	1 to 80 points	8 (ei	ght) (C)		
			8	1 to 90 points	9 (ni	ne) (B)		
			9	1 to 100 points	10 (t	en) (A)		
19.	Signature requirement and passing the final exam			60% success from all pre-exam activities i.e. 42				
				points from two mid-term exams, seminar paper,				
			a	attendance of lectures and exercises				
20.	Lang	uage of teaching / study	Ν	Macedonian				
21.	Method of monitoring the quality			Self-evaluation				
	of tea	f teaching						

22.	Literature									
	22.1.	Required literature								
		Order	Author	Title	Publisher	Year				
		No.								
		1.	K. Philip	Marketing Management	Data Pons Skopje	2009				
		2.								
		3.								
	22.2.	Additional literature								
		Order	Author	Title	Publisher	Year				
		No.								
		1.	A. C. Suleska,	Marketing Management	Faculty of	2008				
			B. Jakovski,		Economics					
					Skopje					
		2.								
		3.								