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Strengthening Capacities for the Implementation of  
Dual Education in BH Higher Education (DUALSCI)

# **Description and Concept of Specific Dual Higher Education Model for the University of Zenica**

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Abstract	Description and Concept of Specific Dual Higher Education Model for the Professional Study Programme at University of Zenica
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#### VERSIONING AND CONTRIBUTION HISTORY

Version	Date	Revision description	Partner responsible
V1	15.07.2021.	Final version	University of Zenica

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Topic: Model (Schedule) for organising dual higher education in pilot projects at University of Zenica  
Academic years: 2021/22.

Department: **MAINTENANCE** (III and IV study years - study concept 4+1)

DEPARTMENT: **DESIGN AND WOOD PROCESSING TECHNOLOGIES** (II and III study years – study concept 3+2)

Term	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7,15-8,00				Travelling time			
8,15-9,00	Course 1 Lecture ex-catedra		Course 2 Excercise Lab	Business day- Reserved for practical education (DHE) In factories -Pilot Dualsci lines		Reserved for guest teacher	
9,15-10,00		Course 3 Lecture ex-catedra					
10,15-11,00							
11,15-12,00	Course 2 Lecture Ex-catedra		Course 3 Excercise Lab				
12,15-13,00		Course 4 Lecture ex-catedra					
13,15-14,00							
15,15-16,00						Reserved for guest teacher	
16,15-17,00							
17,15-18,00			Course 4 Excercise Lab				
18,15-19,00				Travelling time			
19,15-20,00		Course 1 Excercise Lab					
20,15-21,00							
21,15-22,00							

Important: In case that practical education will be organised outside of Zenica-Doboj Canton with more than one day of practical work/education (and with travelling more than 200 km) business days will be in continuation (Thursday – Sunday).

Calculation: (15 weeks x 10 hours) in ZDC + practical work more than on day= (150 hours :30) + (2x 30 hours) = 5 ECTS per semester + 2 ECTS = 7 ECTS /semester

Raspored nastave za III godinu četverogodišnjeg studija u ljetnom semestru 2021/22

Vrijeme	PONEDJELJAK				UTORAK				SRIJEDA				ČETVRTAK				PETAK				SUBOTA	Vrijeme				
	odsjek				odsjek				odsjek				odsjek				odsjek				odsjek					
	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	O					
8 <sup>15</sup> -9 <sup>00</sup>			PM P	ODIM P	TS P	KIB V		TD P															8 <sup>15</sup> -9 <sup>00</sup>			
9 <sup>15</sup> -10 <sup>00</sup>	TMIM V						PVK P						TS V	ONM P					AM P		Termini rezervirani za gostujuće profesore	Gostujući profesori	9 <sup>15</sup> -10 <sup>00</sup>			
10 <sup>15</sup> -11 <sup>00</sup>																							10 <sup>15</sup> -11 <sup>00</sup>			
11 <sup>15</sup> -12 <sup>00</sup>		PM P	IZV P	TS P	OM II V		UO P		PM V	PVK V			MKE P		TM I P	Poslovni dani - Praktična nastava u pilot projektu DUALSCI	TEHNIČKI ENGLLESKI JEZIK 2 P						Termini rezervirani za gostujuće profesore	Gostujući profesori	11 <sup>15</sup> -12 <sup>00</sup>	
12 <sup>15</sup> -13 <sup>00</sup>	OM II P										OIE V							TEHNIČKI ENGLLESKI JEZIK 2 V							12 <sup>15</sup> -13 <sup>00</sup>	
13 <sup>15</sup> -14 <sup>00</sup>			UO V		MKE V																					13 <sup>15</sup> -14 <sup>00</sup>
14 <sup>15</sup> -15 <sup>00</sup>	TIOO P								TIOO V	AiP P	IZV V				KIB P		PM V									14 <sup>15</sup> -15 <sup>00</sup>
15 <sup>15</sup> -16 <sup>00</sup>																										15 <sup>15</sup> -16 <sup>00</sup>
16 <sup>15</sup> -17 <sup>00</sup>	TMIM P									AiP V																16 <sup>15</sup> -17 <sup>00</sup>
17 <sup>15</sup> -18 <sup>00</sup>							TM I V	ODIM V					URDMO P		ONM V											17 <sup>15</sup> -18 <sup>00</sup>
18 <sup>15</sup> -19 <sup>00</sup>																				AM V						18 <sup>15</sup> -19 <sup>00</sup>
19 <sup>15</sup> -20 <sup>00</sup>																						19 <sup>15</sup> -20 <sup>00</sup>				

Korištene kratice:

**IDP:** TS -Transportni sistemi,TIOO - Tehnologično i održivo oblikovanje, OMII - Otpornost materijala II,MKE - Metod konačnih elemenata, TMIM - Teorija mehanizama i mašina

**MPT:** AiP - Alati i pribor, AM - Alatne mašine, MOD - Mašine za obradu deformisanjem, ONM - Obrada nemetalnih materijala, PM - Proizvodna metrologija,KIB - Kibernetika

**IE:** PM - Procesna mjerenja, TM I - Tehnologija mašingradnje I, IZV - Inženjstvo zaštite voda,UO - Upravljanje otpadom, PVK – Pumpe, ventilatori i kompresori

**O:** TD – Tehnička dijagnostika, TS - Transportna sredstva, URDMO – Upravljanje rezervnim dijelovima i materijalima održavanja, OIE - Organizacija i inženjerska ekonomika, ODIM - Obrada deformisanjem i mašine

P - predavanja, V - vježbe

Raspored nastave za IV godinu četverogodišnjeg studija u ljetnom semestru 2021/22

Vrijeme	PONEDJELJAK				UTORAK				SRIJEDA				ČETVRTAK				PETAK				SUBOTA	Vrijeme
	odsjek				odsjek				odsjek				odsjek				odsjek				odsjek	
	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	IDP	MPT	IE	O	O	
8 <sup>15</sup> -9 <sup>00</sup>		UKP P	PM P			NPT P	EPT P		NPT V	NPT V	EPT V	UP V			MPUO V							8 <sup>15</sup> -9 <sup>00</sup>
9 <sup>15</sup> -10 <sup>00</sup>					NPT P			PVK P														9 <sup>15</sup> -10 <sup>00</sup>
10 <sup>15</sup> -11 <sup>00</sup>				UP P					CAD/PD M P													10 <sup>15</sup> -11 <sup>00</sup>
11 <sup>15</sup> -12 <sup>00</sup>						NPO P	MPUO P					PVK V	ENGLJSKI JEZIK VI P									11 <sup>15</sup> -12 <sup>00</sup>
12 <sup>15</sup> -13 <sup>00</sup>		PM V																	ENGLJSKI JEZIK VI V			12 <sup>15</sup> -13 <sup>00</sup>
13 <sup>15</sup> -14 <sup>00</sup>																						13 <sup>15</sup> -14 <sup>00</sup>
14 <sup>15</sup> -15 <sup>00</sup>		NPO V											MID P	RP P	PM V							14 <sup>15</sup> -15 <sup>00</sup>
15 <sup>15</sup> -16 <sup>00</sup>																						15 <sup>15</sup> -16 <sup>00</sup>
16 <sup>15</sup> -17 <sup>00</sup>	MID V	RP V						PTSO V	MTS P	UKP V			CAD/PD M V									16 <sup>15</sup> -17 <sup>00</sup>
17 <sup>15</sup> -18 <sup>00</sup>							PM P															17 <sup>15</sup> -18 <sup>00</sup>
18 <sup>15</sup> -19 <sup>00</sup>				PTSO P	MTS V																	18 <sup>15</sup> -19 <sup>00</sup>
19 <sup>15</sup> -20 <sup>00</sup>																						19 <sup>15</sup> -20 <sup>00</sup>

NAPOMENA: Izborni predmeti u dogovoru s predmetnim nastavnicima i saradnicima.

Korištene kratice:

IDP:	MID – Metodika inženjerskog dizajna, NPT – Nove proizvodne tehnologije, MTS – Mehatronički sistemi, CAD/PDM - CAD/PDM tehnologije i razvoj proizvoda
MPT:	NPT – Napredne proizvodne tehnologije, NPO – Nekonvencionalni postupci obrade, RP – Razvoj proizvoda, UKP – Upravljanje kvalitetom proizvoda, PM – Proizvodni menadžment
IE:	EPT – Eko prihvatljive tehnologije, PM – Procesna mjerenja, MPUO – Metodologija procjene uticaja na okoliš
O:	TMiD- Tehnologija montaže i demontaže, PTSO- Projektovanje tehničkih sistema za održavanje; UP- Upravljanje projektima, PVK- Pumpe, ventilatori i kompresori
P - predavanja, V - vježbe, FMM - Fakultet za Metalurgiju i Materijale	

Raspored nastave za II godinu studija Dizajn i tehnologije u drvoprerađi u ljetnom semestru 2021/22

Vrijeme	PONEDJELJAK	UTORAK	SRIJEDA	ČETVRTAK		SUBOTA	Vrijeme				
8 <sup>15</sup> -9 <sup>00</sup>	PREDUZETNIŠTVO P	CNC TEHNOLOGIJE V	KOMOPOZITNI MATERIJALI P		Termini rezervirani za gostujuće profesore	Gostujući profesori	8 <sup>15</sup> -9 <sup>00</sup>				
9 <sup>15</sup> -10 <sup>00</sup>								9 <sup>15</sup> -10 <sup>00</sup>			
10 <sup>15</sup> -11 <sup>00</sup>	CNC TEHNOLOGIJE P	PREDUZETNIŠTVO V	KOMOPOZITNI MATERIJALI V	Poslovni dani - Praktična nastava u pilot projektu DUALSCI			Termini rezervirani za gostujuće profesore	Gostujući profesori	10 <sup>15</sup> -11 <sup>00</sup>		
11 <sup>15</sup> -12 <sup>00</sup>											11 <sup>15</sup> -12 <sup>00</sup>
12 <sup>15</sup> -13 <sup>00</sup>										12 <sup>15</sup> -13 <sup>00</sup>	
13 <sup>15</sup> -14 <sup>00</sup>										13 <sup>15</sup> -14 <sup>00</sup>	
14 <sup>15</sup> -15 <sup>00</sup>											14 <sup>15</sup> -15 <sup>00</sup>
15 <sup>15</sup> -16 <sup>00</sup>			IZBORNI PREDMET 1* P								15 <sup>15</sup> -16 <sup>00</sup>
16 <sup>15</sup> -17 <sup>00</sup>									16 <sup>15</sup> -17 <sup>00</sup>		
17 <sup>15</sup> -18 <sup>00</sup>			IZBORNI PREDMET 1* P						17 <sup>15</sup> -18 <sup>00</sup>		
18 <sup>15</sup> -19 <sup>00</sup>							18 <sup>15</sup> -19 <sup>00</sup>				
19 <sup>15</sup> -20 <sup>00</sup>							19 <sup>15</sup> -20 <sup>00</sup>				

Korištene kratice: P- predavanja; V-vježbe

\*Nastava će se odvijati u dogovoru sa predmetnim profesorom

Raspored nastave za II godinu studija Dizajn i tehnologije u drvoprerađi u ljetnom semestru 2021/22

Vrijeme	PONEDJELJAK	UTORAK	SRIJEDA	ČETVRTAK	PETAK	SUBOTA	Vrijeme
8 <sup>15</sup> -9 <sup>00</sup>	PREDUZETNIŠTVO P	CNC TEHNOLOGIJE V	KOMOPOZITNI MATERIJALI P	Poslovni dani - Praktična nastava u pilot projektu DUALSCI	Termini rezervirani za gostujuće profesore	Gostujući profesori	8 <sup>15</sup> -9 <sup>00</sup>
9 <sup>15</sup> -10 <sup>00</sup>							
10 <sup>15</sup> -11 <sup>00</sup>	CNC TEHNOLOGIJE P		KOMOPOZITNI MATERIJALI V				10 <sup>15</sup> -11 <sup>00</sup>
11 <sup>15</sup> -12 <sup>00</sup>		PREDUZETNIŠTVO V					11 <sup>15</sup> -12 <sup>00</sup>
12 <sup>15</sup> -13 <sup>00</sup>							12 <sup>15</sup> -13 <sup>00</sup>
13 <sup>15</sup> -14 <sup>00</sup>							13 <sup>15</sup> -14 <sup>00</sup>
14 <sup>15</sup> -15 <sup>00</sup>							14 <sup>15</sup> -15 <sup>00</sup>
15 <sup>15</sup> -16 <sup>00</sup>			IZBORNI PREDMET 1* P				15 <sup>15</sup> -16 <sup>00</sup>
16 <sup>15</sup> -17 <sup>00</sup>							16 <sup>15</sup> -17 <sup>00</sup>
17 <sup>15</sup> -18 <sup>00</sup>			IZBORNI PREDMET 1* P				17 <sup>15</sup> -18 <sup>00</sup>
18 <sup>15</sup> -19 <sup>00</sup>							18 <sup>15</sup> -19 <sup>00</sup>
19 <sup>15</sup> -20 <sup>00</sup>							19 <sup>15</sup> -20 <sup>00</sup>

Korištene kratice: P- predavanja; V-vježbe

\*Nastava će se odvijati u dogovoru sa predmetnim profesorom