

	UNIVERSITY OF EAST SARAJEVO					
	Faculty of Mechanical Engineering					
	Study program: Mechanical Engineering					
		1 ST LEVEL OF STUDIES			3 ST YEAR	
Course title		WELDED CONSTRUCTIONS				
Department		Department of Mechanical constructions and Engineering Design				
Code		Course status		Semester		ECTS
MAΦ-1-1-MC-06-2-080-5-5-2-2-0		Elective		V		5
Professor		PhD Biljana Marković, full professor				
Teaching assistant		M. Sc. Aleksija Đurić - teaching assistant				
Number of hours (per week)			Individual student workload (in hours in semester)			Coefficient of student workload S₀
L	E	LE	L	E	LE	S₀
2	2	0	2*15*S ₀	2*15*S ₀	0*15*S ₀	1.4
Total total teaching hours in semester 2*15 + 2*15 + 0*15 = 60 hours				Total student's workload (in hours in semester) 2*15*S ₀ + 2*15*S ₀ + 0*15*S ₀ = 84 hours		
Total course workload: 60 + 84 = 144 hours in semester						
Student learning objectives	The student acquires basic theoretical and practical knowledge about the construction and formation of welded structures that are most often used in industry					
Conditionality	Machine elements 1					
Teaching methods	Lectures, exercises, graphic exercises, computer exercises, laboratory exercises and colloquiums					
Content of the course by weeks	<ol style="list-style-type: none"> 1. Introduction to welding technology: a history of welding, application of welding technology; 2. Basic welding procedures, types of welded joints/seams, 3. Welding positions; 4. Presentation of welded joints in technical documentation. 5. Quality and tolerances of welded joints; 6. Conditional division of welded structures, basic requirements for welded structures, 7. Specifics of welded structures. 8. Construction in order to reduce the mass of welded structures 9. Technological form of welded structures 10. Residual stresses, their occurrence, and elimination procedures in welded structures 11. Calculation of welded structures, 12. Examples of welded structures and their calculation 13. Examples of welded structures and their calculation - load-bearing structures: bridges, cranes 14. Examples of welded structures and their calculation - sealing constructions: pressure vessels, pipelines, gas pipelines, tanks, etc .. 15. Testing of welded structures 					
Required literature						
Authors	Name of the publication, publisher			Year	Pages	
B. Marković, A Djuric	Script - Welded construction			2020.	-	
Additional literature						
Authors	Name of the publication, publisher			Year	Pages	
					-	
Obligations, forms of knowledge check and assessment	Type of student evaluation			Points	Percentage	
	attendance at lectures / exercises			5+5	10%	
	Colloquium I and II + Written exam			20+20	40%	
	Graphic works			15	15%	
	laboratory exercises			5	5 %	
	final exam (oral / written)			30	30%	
Total			100	100 %		
Web page	http://www.maf.ues.rs.ba/PDF_za_sajt/MKRP2017/Zavarene%20masinske%20konstrukcije.pdf (in Serbian language)					
Date of certification						