

	UNIVERSITY OF EAST SARAJEVO								
	Faculty of Mechanical Engineering								
	Study program: Mechanical Engineering/ Engineering design and applications mechanics								
2 ST LEVEL OF STUDIES			1 ST YEAR						
Course title			INDUSTRIAL DESIGN						
Department			Department of Mechanical constructions and Engineering Design						
Code			Course status		Semester		ECTS		
-			Mandatory		I		6		
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 S_o			
L	E	LE	L	E	LE	S_o			
3	2	0	3*15*S _o	2*15*S _o	0*15*S _o	1.4			
Total total teaching hours in semester 3*15 + 2*15 + 0*15 = 75 hours				Total student's workload (in hours in semester) 3*15*S _o + 2*15*S _o + 0*15*S _o = 105 hours					
Total course workload: 75 + 105 = 180 hours in semester									
Student learning objectives		<p>The main goal of the course is to achieve the necessary skills and knowledge in the field of industrial design, as well as the application of acquired knowledge in the development, design and verification of product design solutions. Mastering methodologies and principles of product design from the point of view of functionality, aesthetic requirements, reliability and safety, quality, production characteristics, economic justification. The aim of the course is to develop the creative abilities of students in defining ideas for new products and their design and introduction to methods for product development. The student who passes this course acquires the ability to creatively harmonize the factors from the idea to the new solution within the product development. The student will be trained to apply product design methods and procedures, in team work or independently, to design products using current computer tools.</p>							
Conditionality		No conditioning							
Teaching methods		Lectures, exercises, graphic exercises, computer exercises, colloquiums							
Content of the course by weeks		<p><u>Theoretical classes</u> Theory, definition, history and development of industrial design. Contemporary concepts and philosophies in industrial design. Methodology and product development process. The role and importance of industrial design in product development. Cultural, economic and environmental aspects. Industrial design as a symbol of product quality. Factors influencing design. Design elements. Lifetime design. Defining design during development. Appearance and shape of the product. Product design adapted to production, assembly and use. Functional and ergonomic component. Aesthetic elements and principles of form. Shapes, scales and similarities in nature and their influence on the development of industrial design. Application of creative methods in product development. Generating new variants of conceptual solutions. Methods for analyzing the characteristics of variant solutions.</p> <p><u>Practical teaching</u> Exercises in the use of basic aesthetic elements and principles in industrial design. Training and work in the current software package. Principles of computer modeling of shapes. Product design, with the application of specific measures to improve the product. Photorealistic representation of the model.</p>							
Required literature									
Authors		Name of the publication, publisher			Year		Pages		
							-		
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				2,5+2,5		5%	
		Colloquium I and II				15+15		30%	
		Practical works				15		15%	
		Seminar paper				20		20%	
		final exam (oral / written)				30		30%	
		Total				100		100 %	

Web page	http://www.maf.ues.rs.ba/PDF_za_sajt/Elaborat%20%20ciklus%20Masinski%20fakultet%20IS%20KONACAN.pdf (in Serbian language)
Date of certification	