
		UNIVERSITY OF EAST SARAJEVO Faculty of Mechanical Engineering						
		Study program: Mechanical Engineering						
		1 ST LEVEL OF STUDIES		4 th YEAR				
Course title		Machine tools						
Department		Department of production engineering						
Code			Course status		Semester		ECTS	
MAΦ-1-1-MC-06-1-037-7-6-3-1-1			Mandatory		VII		6	
Professor		PhD Aleksandar Kosarac, associate professor						
Teaching assistant		MSc Lana Sikuljak, senior 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	1	1	3*15*S _o	1*15*S _o	1*15*S _o	1.4		
Total total teaching hours in semester 3*15 + 1*15 + 1*15 = 75 hours				Total student's workload (in hours in semester) 3*15*S _o + 1*15*S _o + 1*15*S _o = 105 hours				
Total course workload: 60 + 84 = 144 hours in semester								
Student learning objectives		Acquiring knowledge about the principles of design of machine tools for metal cutting. In doing so, it starts from the previous development and use of machine tools from a historical perspective and tendencies of machine tool development and studies the basic conceptual variants, the main characteristics, and the design of each module in detail. Special attention is paid to the behavior of machine tools in exploitation.						
Conditionality		No conditioning						
Teaching methods		Lectures, laboratory exercises, homework, consultations, partial exams, final exam.						
Content of the course by weeks		1. Introduction to the course, course goals, course objectives, literature, student tasks 2. Previous development from a historical perspective and tendencies of machine tool development 3. Classification of machine tools 4. The layout of the machine tool 5. Design of speed gearbox for machine tools 6. Design of feed gearbox for machine tools 7. Design of mechanism to convert rotary motion into linear motion 8. Design of gearbox for linear auxiliary motion 9. Design of machine tool hydraulic drives 10. Design of machine tool electrical drives 11. Machine tool kinematics 12. Machine tool main spindle 13. Characteristics of spindles, gears, and bearings of machine tools 14. Design requirements of bed for machine tools 15. Technical characteristics of machine tools						
Required literature								
Authors		Name of the publication, publisher				Year	Pages	
Боројев, Љ., Зељковић, М.		Пројектовање машина алатки, Свеска: Преносна структура машина алатки – МЕХАНИЧКИ ПРЕНОСНИЦИ, Факултет техничких наука, ауторски репринт, Нови Сад				2002.	-	
Additional literature								
Authors		Name of the publication, publisher				Year	Pages	
Гатало, Р., Боројев, Љ., Зељковић, М.		Прорачун главних карактеристика машина алатки за обраду резањем, Факултет техничких наука, Нови Сад				1992.		
Калајжић, М.		Технологија машиноградње, Машински факултет, Београд				1994.		
Милачић, В.		Машине алатке И, Машински факултет, Београд				1980.		
Obligations, forms of knowledge check		Type of student evaluation				Points	Percentage	
		Pre-exam obligations						
		Attendance at lectures / exercises				10	10%	

and assessment	Homework, tests, partial exams	50	50%
	Final exam		
	Final exam	40	40%
	Total	100	100 %
Web page			
Date of certification			