
	UNIVERSITY OF EAST SARAJEVO Faculty of Mechanical Engineering					
	Study program: Mechanical Engineering					
	1 ST LEVEL OF STUDIES	4 th YEAR				
Course title	Metal cutting machine tools					
Department	Department of production engineering					
Code	Course status	Semester	ECTS			
MAΦ-1-1-MC-06-2-092-7-5-2-2-0	Elective	VII	5			
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 S₀	
L	E	LE	L	E	LE	S₀
2	1	1	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	Acquiring the basic knowledge required for the exploitation of machine tools and the design of technological processes of metal cutting, which take place on machine tools in the metal cutting industry.					
Conditionality	No conditioning					
Teaching methods	Lectures, laboratory exercises, homework, consultations, partial exams, final exam.					
Content of the course by weeks	<ol style="list-style-type: none"> 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. The layout of the machine tool 4. Types of lathe machine: engine lathe machine, capstan and turret lathe machine, automatic lathe machine, special purpose lathe machine (facing lathe, frontal lathe, vertical lathe), CNC lathe machine, CNC machining center 5. Drilling machine: bench drilling machine, column drilling machine, radial drilling machine, multiple spindle drilling machine, gang drilling machine, and deep hole drilling machine. 6. Milling machine: column and knee type of milling machine – horizontal milling machine, vertical milling machine, universal milling machine, indexing head, ram-type universal milling machine, CNC milling machine, CNC machining centers 7. Sawing machine: circular saw, band saw, hack saw 8. Grinding machine: cylindrical grinder, internal grinder, centerless grinder, rotary table surface grinder, reciprocating table surface grinder, horizontal spindle surface grinder, honing machine, lapping machine, CNC grinding machine. 9. Broaching machine: vertical broaching machine, horizontal broaching machine 10. Speed gearboxes 11. Flexible manufacturing systems 12. Computer integrating manufacturing 13. Assembly processes 14. Jigs and fixtures 15. Measuring and controlling 					
Required literature						
Authors	Name of the publication, publisher			Year	Pages	
Миликић, Д.	Технологија обраде резањем, машине уређаји и поступци обраде, Факултет техничких наука Нови Сад			2000.	-	
Additional literature						
Authors	Name of the publication, publisher			Year	Pages	
Капајић, М.	Технологија машиноградње, Машински факултет, Београд			1994.		
Милачић, В.	Машине алатке I, Машински факултет, Београд,			1980.		
Obligations, forms of knowledge check	Type of student evaluation			Points	Percentage	
	Pre-exam obligations					
	Attendance at lectures / exercises			5	5%	

and assessment	Homework	25	25%
	Partial exams	30	30%
	Final exam		
	Final exam	40	40%
	Total	100	100 %
Web page			
Date of certification			