

SYLLABUS

The basic course information:			
Academic unit:	Faculty of Engineering and Informatics		
Title of the subject:	Materials Processing I		
Level:	Bachelor		
Course Status:	Obligatory		
Year of studies:	II		
Number of hours per week:	3		
Value of Credits - ECTS:	4		
Time / location:			
Course lecturer:	Mr.sc.Binaze Jashari		
Contact details:	binaze.jashari@ushaf.net		
Course description:			
	<i>This course will introduce students to metalworking, machining machines, processing processes as well as economic processing methods.</i>		
Objectives of the course:			
	<i>The aim of this course is to provide students with sufficient knowledge of materials processing methods. Processing machines, instruments and tools, auxiliary equipment during processing such as measuring ones, etc.</i>		
Learning outcomes:			
	<p><i>After successful completion of the course, students will be able to:</i></p> <ul style="list-style-type: none"> <i>• know what is the processing of metals with ash removal, the determination of the processing regime, which are the machines tools in which the processing with ash removal is done, etc.</i> <i>• design the technological process for the processing of a mechanical detail, starting from the semi-finished product to the ready-made detail.</i> <i>• determine the quality of surfaces worked with ash removal.</i> <i>• know the processing operations, the bases of metal processing with cutting.</i> <i>• apply economical method of processing between cutting and other processing while preparing for the work of machine elements.</i> 		
Contribution to the student load (which must correspond with learning outcomes)			
Activity	Hour	Day/week	In total
Teaching (Lectures and exercises)	3	15	45
Internship			
Contacts with teacher / consultations	1	5	5

Field exercises	-	-	-
Midterm, seminars and projects.	2	5	10
Homework			
Self-learning time student (at the library or at home)	2	15	30
Final preparation for the exam	2	5	10
Time spent on evaluation (tests, quiz and final exam)	1	1	1
Projects and presentations.	1	2	2
Total			103

Teaching methodology:	<i>Lectures and exercises combined with exercises.</i>
Assessment methods:	<i>Seminar paper 20% Final exam 80%</i>

Literature	
Basic Literature:	1. Zijadin Krasniqi; <i>Përpunimi me prerje I, Universiteti i Kosovës, Prishtinë,1985</i>
Supplementary Literature:	<ol style="list-style-type: none"> 1. Prof. Dr. Adnan Bodinaku , <i>Teknologjia mekanike 2 (pjesa e parë)</i>, 2. <i>Punimi me heqje ashkle , shtëpia botuese e librit universitar Tiranë, 2004.</i> 3. Prof. Dr. Adnan Bodinaku , <i>Teknologjia mekanike 2 (pjesa e dytë)</i>, 4. <i>Punimi me heqje ashkle , shtëpia botuese e librit universitar Tiranë, 2005.</i> 5. Zijadin Krasniqi; <i>Përpunimi me prerje I, Universiteti i Kosovës, Prishtinë,1985.</i> 6. K.Krammer; <i>Schneldkramik, Diamant und Bornitrid zur Gusswerkstoffbearbeitung, Ind. Anzeiger, 1977, 99,Nr.46.</i> 7. <i>Tanush Hajnaj; Përpunimi plastik i metaleve , Universiteti i Tiranës, Fakulteti i Inxhinjerisë, Tiranë, 1978.</i>

Designed learning plan:	
Week	Lectures and exercises to be held
<i>Week one:</i>	<i>Introduction to the subject.</i>
<i>Week two:</i>	<i>Scrap processing. Machines and types of processing</i>
<i>Week three:</i>	<i>Scrap shapes. The mechanism of scrap formation.</i>
<i>Week four:</i>	<i>Measurement of cutting forces.</i>
<i>Week five:</i>	<i>Cutting temperatures. Measuring temperatures during cutting processing.</i>
<i>Week six:</i>	<i>Tools for cooling and lubrication during cutting work</i>

Week seven:	<i>Materials for metal cutting tools</i>
Week eight:	<i>Types of metal cutting tools during various processing operations</i>
Week nine:	<i>Durability and consumption of metal cutting tools. Quality of the worked surface.</i>
Week ten:	<i>Works on the turning machine. Basic movements of machines, turning tools.</i>
Week eleven:	<i>Practical work in the laboratory at USHAF</i>
Week twelve:	<i>Numerical-CNC machines and its functions.</i>
Week thirteen:	<i>Processing of a detail in CNC lathe measuring the roughness quality of its surface.</i>
Week fourteen:	<i>Processing with rectification in the rectifier machine</i>
Week fifteen:	<i>Processing theory, calculation of processing time in metal cutting machines and calculation of rate and other costs Evaluation and presentation of seminar papers.</i>

Academic policies and rules of conduct:

Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.