Study program: Industrial Engineering

Course title: Manufacturing Tools and Accessories

Professor/assistant: Sladjana Nedeljkovic

Type of course: elective

ECTS credits:6

Pre-requisites:

Aims of the course: Prepare students to :
-adopt the concepts of tools, accessories, marking tools,
-distinguish between basic technical - technological characteristics of metal processing machines (lathes, boring machines),
-learn how to construct tool supported computers,
-learn the variety of tools for different types of processing (punching , cutting , bending ...).

Learning outcomes:
After taking the course, students will be able to:
-Define the production, technology and processing system processes and their basic elements and features;
-Describe the proper selection of construction tools for modern industrial practice.

Syllabus

Theoretical part

Basic technical and technological characteristics of metal processing machines (lathes, milling machines, drilling machines). Special purpose machines, turning centers and machining centers,non-rotational parts. Numerically controlled machines, basic structure of technical characteristics. Cutting tools and auxiliary equipment. Type, purpose, choice and marking of tools. Characteristics of cutting, measuring tools and support materials for the cutter's tools. Construction and tool supported computers. The choice of tools for various types of processing.

Practical part

Video and printed material for different types of teaching methods. Consultations and corrections for individual tasks and the material for the first test. Tests covering the theoretical part of the course. Visits to manufacturing organizations.

Literature

1. B . Rancic , S . Nedeljkovic : Tools and Accessories - authorized lectures , HTS Niš

Number of active classes			Other forms of teaching:
Lectures: 2	Practical classes: 3	Research work:	

Teaching methods Combined , interactive sessions with solutions of practical examples

Grading system (maximum 100 points), **grading scale**from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade7 from 61-70 points, grade8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

Pre-exam obligations	**points**	**Final exam**	**points**
activity during theoretical lectures	**5**	written exam	**30**
practical training	**5**	oral exam	
colloquium(s)/seminar papers	**40+20**		
Sum	**70**	**Sum**	**30**