Course Syllabus

Academic year: 2018-2019

Institution	University of Petroşani
Faculty	Mechanical and Electrical Engineering
Field of study	Industrial engineering
Level	Bachelor
Program of study	Machine Building Technology

Course	**Basics of surface generation on machine tools**
Code	2BB4OD30
Year of study (semester)	II (III)
Number of hours	56
Number of credits	4
Professor	Lecturer eng,Ph.D. COZMA Bogdan-Zeno

No.	Topic
1.	**Notions of the theory of cutting:** relative movement between tool and piece; geometry of cutting tools, layer elements chipped, chip formation Getting on the dynamics of the cutting process, wear and durability of cutting tools.
2.	**Notion of kinematic machine tools**: kinematic chains, mechanisms for adjusting the speed of the speed, gear box, box advances stepless speed adjustment mechanisms, mechanisms to reverse the direction of rotation, mechanisms to achieve straight movement, mechanisms for obtaining movement intermittent.
3.	**Methods for generating surfaces:** turning (cutting regime elements in turning, lathe work performed on normal) milling (cutting regime elements in milling, cutting forces and power consumption in milling, milling operations performed) HOLES (elements cutting regime when drilling, cutting forces, timing and power consumption for drilling, processing operations bores) planing (cutting mode to planing, cutting forces and power consumption to planing; works executed by planing) Slotting, Broaching , the correction (the correction cutting regime elements outside round, cutting forces and power consumption to rectify round outdoor)