

University POLITEHNICA of Bucharest (UPB)
 Faculty of Industrial Engineering and Robotics (IIR)
 Study Programme: Industrial Engineering (IE)
 Level of study: Licence (Bachelor)

COURSE SPECIFICATION

Course title	Course code	Semester	Credits (ECTS)
Manufacturing Processes 2	UPB.06.S.06.O.004	6	2

Course structure	Lecture	Laboratory	Total hours
<i>Number of hours per week</i>	2	1	3
<i>Number of hours per semester</i>	28	14	42

Academic staff	Lecture	Laboratory
<i>Name, academic degree</i>	GHEORGHE Marian, Professor	DIJMĂRESCU Manuela-Roxana, Lecturer
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Course description

Objective

Knowledge and formation of theoretical and practical skills on product structural and technological characteristics, production processes and systems structure, characteristics of manufacturing systems, design of technological processes, manufacturing technologies.

Structure

• Product Characteristics • General Data on Production Processes and Systems • Characteristics of Manufacturing Systems • Manufacturing Technological Processes Design • Manufacturing Technologies.

Laboratory description

Objective

Formation of practical skills on structural and technological characteristics of products, characteristics of manufacturing processes and system,, performing manufacturing operations.

Structure

• Constructive and functional analysis of manufacturing systems • Analysis and performing of machining operations • Constructive and functional analysis of manufacturing fixtures
 • Constructive and functional analysis of cold plastic deformation processes and systems

Intended learning outcomes

- Knowledge and best practice of specific elements related to course area.
- Explanation and interpretation of ideas, processes, projects, theoretical and practical contents in the course area.
- Use of methods, techniques and instruments of investigation and implementation, expression of a positive and responsible attitude to scientific field.

Assessment method	% of the final grade	Minimal requirements for award of credits
Written exams	40	Total of min. 50 points, including laboratory of min. 15 points and homework of min. 15 points
Laboratory	30	
Homework	30	

References
<ul style="list-style-type: none"> • Gheorghe M., <i>Manufacturing Processes 2</i>, Course Notes, UPB, 2022-23 • Gheorghe M., Dijmărescu M.R., <i>Manufacturing Processes 2</i>, Lab Works, UPB, 2022-23 • Manolache D.S., <i>Manufacturing Processes 1</i>, Course Notes, UPB, 2022-23 • Davim J.P., <i>Modern Manufacturing Engineering</i>, Springer, 2015 • Holt J. (editor), <i>Manufacturing Engineering and Technology</i>, Willford Press, 2022

Prerequisites	Co-requisites (courses to be taken in parallel as a condition for enrolment)
Materials Technology; Manufacturing Processes 1	Manufacturing Processes 2 - Project

Date: 05.09.2022

Course Coordinator,

Prof.dr.ing. Marian GHEORGHE