

COURSE DESCRIPTION CARD

Bialystok University of Technology Faculty of Engineering Management									
Field of study	Management							Degree level and programme type	first degree/ second degree
Specialisation/ diploma path	-							Study profile	-
Course name	Production and service management							Course code	IS-FM-00075W
								Course type	elective
Forms and number of hours of educational activities	L	C	LC	P	SW	FW	S	Semester	winter
	15	15						No. of ECTS credits	6
Entry requirements	-								
Course objectives	Familiarize students with the major theoretical and practical issues related to the management of manufacturing and the service provision. Presentation of the structures and concepts for the management of production processes and service processes. Presentation of the basic methods and techniques used in the management of this area.								
Course content	Servitization. The three sectors of economy: agriculture, manufacturing and services. Changing trends and their causes. The fourth industrial revolution, Industry 4.0. Production process, service process. Types of production systems. Classification of service operations. Product designing. Process of product designing, QFD (Quality Function Deployment Method) as a tool supporting designing process – discussion. Blueprints in services. What is a blueprint? Why we use blueprints in services? How to prepare it? MRP I – Material Requirements Planning system. The differences between MRP I and MRP II, the role of computer software, Master Production Schedule, BOM – bill of materials, schedules for materials. Lean Management. The origins of Lean Management, types of wastes. Tools and techniques in LM. 5S technique. Just in Time system. Assumptions of JiT as original Japanese approach, kanban system, determinations of number of kanban cards, calculation of kanban cards.								
Teaching methods	lecture, team working, discussion, Q&A, small projects								
Assessment method	written test, evaluation of homework reports								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
	Knowledge: the graduate knows and understands								
LO1	main characteristics of management in the sphere of goods production and provision of services							Z_W01, Z_W10	

L02	the importance of the latest management concepts related to production and services	Z_W01
	Skills: the graduate is able to	
L03	identify and analyze the basic problems of production management and services	Z_U05, Z_U11
L04	apply selected methods and techniques	Z_U01, Z_U04
	Social competence: the graduate is ready to	
L05	demonstrate the ability of decision-making in the sphere of realization of production and service provision	Z_K03
L06	work in a team	Z_K02, Z_K03
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed
L01	evaluating the student's tests	L
L02	evaluating the student's reports and performance in classes	L, C
L03	evaluating the student's reports and performance in classes, evaluating the student's tests	L, C
L04	evaluating the student's reports	L, C
L05	evaluating the student's reports	C
L06	evaluating the student's performance in classes	C
Student workload (in hours)		No. of hours
Calculation	lecture attendance	15
	participation in classes	15
	preparation for classes	60
	work on projects, reports, etc.	50
	preparation for and participation in exams/tests	10
	TOTAL:	150h
Quantitative indicators		HOURS
		No. of ECTS credits
Student workload – activities that require direct teacher participation		30h
Student workload – practical activities		125h
Basic references	1. Chase, R.B., Aquilano, N.J. & Jacobs, F.R., Production and Operation Management. Manufacturing and Services, Irwin, McGraw-Hill. 2. Bicheno, J., The New Lean Toolbox. Toward Fast, Flexible Flow, PICSIE Books. 3. Muhlemann, A.P., Oakland, J.S., Lockyer K.G., Production and Operations Management, Prentice Hall.	
Supplementary references	1. Liker, J.K., The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer, McGraw-Hill Professional.	
Organisational unit conducting the course	Department of Production Management	Date of issuing the programme
Author of the programme	Assoc. Prof. Wiesław Urban, DSc, PhD, Eng.	February 22, 2022

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar