



## Subject card

Subject name and code	Production Engineering, PG_00040526						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject				2024/2025	
Education level	first-cycle studies	Subject group				Obligatory subject group in the field of study Subject group related to scientific research in the field of study	
Mode of study	Part-time studies	Mode of delivery				at the university	
Year of study	3	Language of instruction				Polish	
Semester of study	5	ECTS credits				4.0	
Learning profile	general academic profile	Assessment form				exam	
Conducting unit	Department of Industrial Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Jolanta Łopatowska				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	16.0	16.0	0.0	0.0	0.0	32
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours		Self-study		SUM
	Number of study hours	32	8.0		60.0		100
Subject objectives	The aim of the course is to understand the essence of production planning and control at every level of operational activity and to acquire the skills to ensure the efficient running of production processes.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U11] can plan and control production and production quality, including the identification and formulation of specifications for simple engineering tasks		Uses basic methods of production planning and control.		[SU4] Assessment of ability to use methods and tools		
	[K6_W10] has the knowledge of the life cycle of the production system and the product		Identifies elements of the production system. Decomposes the production system.		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_W12] has a basic knowledge of production management and occupational safety and ergonomics management, as well as information technologies necessary for engineering management		Describes the activities carried out in the planning and control process.		[SW3] Assessment of knowledge contained in written work and projects		
Subject contents	Production system and production process. Decomposition of the production system. Activities in production planning and control. Demand forecasting. Planning of production capacity. Sales and operations planning (S&OP). Waste plan scheduling. The order of tasks. Pull and push concepts. Production planning and control according to MRP. Planning and control in MRPII / ERP systems. Balancing production in JiT systems (OPF), heijunka. Kanban system, supermarket. Production planning and control according to the Theory of Constraints, DBR method. .						
Prerequisites and co-requisites	production management						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	colloquium		60.0%		25.0%		
	reports		50.0%		25.0%		
	exam		60.0%		50.0%		
Recommended reading	Basic literature		Brzeziński M.: Organizacja i sterowanie produkcją. Placet, Warszawa 2002 Waters D.: Zarządzanie operacyjne. Towary i usługi. PWN, Warszawa 2012 Bozarth C., Handfield R.: Wprowadzenie do zarządzania operacjami i łańcuchem dostaw. Helion 2007				

	Supplementary literature	Goldratt M. Cox J.: Cel. Doskonałość w produkcji, Mint Books 2008 Pasternak K.: Zarys zarządzania produkcją, PWE 2005 Pająk E.: Zarządzanie produkcją, PWN 2006, Pająk E., Klimkiewicz M., Kosieradzka A., Zarządzanie produkcją i usługami, PWE, 2014. The Productivity Press Development Team: Kanban na hali produkcyjnej. Prod.Publishing, 2010, Balle F., Balle M.: Kopalnia złota, Lean Enterprise Institute, Wrocław 2013
Example issues/ example questions/ tasks being completed	eResources addresses	Strategies for building sales and operations. plans S&OP..  Characteristics of the method of drum-buffer-rope.
Work placement		Not applicable