



Subject card

Subject name and code	Modern Concepts of Production Management, PG_00067394						
Field of study	Engineering Management						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2027/2028	
Education level	first-cycle studies		Subject group			Optional subject group Subject group related to scientific research in the field of study	
Mode of study	Full-time studies		Mode of delivery			at the university	
Year of study	3		Language of instruction			Polish	
Semester of study	6		ECTS credits			7.0	
Learning profile	general academic profile		Assessment form			assessment	
Conducting unit	Department Of Management Engineering And Quality -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	60.0	0.0	0.0	0.0	75
	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	75		5.0		95.0	175
Subject objectives	Formulates and implements creative production management concepts using modern advanced methods						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_K03] is prepared to critically assess the knowledge they possess, which is necessary for solving cognitive and practical problems, and to supplement any gaps with opinions from external experts.		is able to reflect on their approach to production management challenges, identify areas requiring deeper insight, and seek expert input when the complexity of the issue demands it.			[SK3] Assessment of ability to organize work [SK5] Assessment of ability to solve problems that arise in practice	
	[K6_W07] knows and understands advanced methods for analyzing the management process in technical, legal, economic, financial, and social contexts.		is familiar with approaches used in modern production management and understands how to consider various organizational and external factors when evaluating the effectiveness of operational solutions			[SW3] Assessment of knowledge contained in written work and projects	
	[K6_U05] designs innovative solutions for complex management processes by utilizing appropriate methods and techniques.		is able to develop improvements in production process management by selecting approaches and tools suited to the nature of the problem and the operational context of the enterprise			[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools	

Subject contents	Lean manufacturing Basic concepts related to Lean Manufacturing Problem solving 5S - engaging in the perception and elimination of waste Gemba Walk - identifying problems in processes Standardization of work Milk run - organization of supplying stations with materials Poka-yoke - right the first time SMED - shortening changeover times Kamishibai - layered standards auditing One point lesson - communication of changes in processes Quick Response manufacturing VUCA world Quick Response Manufacturing pillars White and gray times Construction of MCT maps Creating cells based on FTMS Quick Response Office Center Quick Response Cell		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	60.0%	60.0%
	Lecture test	60.0%	40.0%
Recommended reading	Basic literature	Czerska J, Podstawowe narzędzia Lean Manufacturing, LeanQ Team, 2014 Czerska J, Doskonalenie strumienia wartości, wyd 2, LeanQ Team, 2014 Czerska J (red.) Poradnik Młodego Lean Lidera, Lean Education, 2019 Rajan Suri Zyskaj na Czasie, Wyd MT Biznes 2017 Knosala R., Inżynieria Produkcji, Kompendium Wiedzy, Wyd. PWE Warszawa 2017 Szatkowski K., Nowoczesne zarządzanie produkcją, Wyd. PWN Warszawa 2014	
	Supplementary literature	Pająk E., Zarządzanie produkcją, Wyd PWN Warszawa 2021 Rajan Suri Przewodnik po MCT, Wyd 4Results, QRM Institute Polska	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Discuss the construction of the MCT map Discuss the 4 pillars of QRM Build a QRoc based on selected FTMS Use the Lean Management tool in relation to the given problem in the form of a case study		
Work placement	Not applicable		

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