



Subject card

Subject name and code	, PG_00056525						
Field of study	KONCEPCJE ZARZĄDZANIA PRODUKCJĄ II: QUICK RESPONSE MANUFACTURING						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2025/2026		
Education level	first-cycle studies		Subject group		Optional subject group 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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		exam		
Conducting unit	Department of Management Engineering and Quality -> Faculty of Management and Economics -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Grzegorz Zieliński				
	Teachers		dr inż. Grzegorz Zieliński				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	8.0	0.0	8.0	0.0	0.0	16
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 46395 Konceptcje zarządzania produkcją QRM (nstac) ZIMA 2025/2026 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=46395						
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	16		0.0		0.0	16
Subject objectives	The aim of the course is to prepare students for conscious and responsible engineering and managerial decision-making in highly customized production activities by acquiring knowledge and skills in the field of design, modeling and optimization of technical processes and systems, taking into account the principles of the Quick Response Manufacturing strategy supporting decision-making and production processes, taking into account pro-quality and pro-environmental aspects.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes		is able to consciously and responsibly analyze and evaluate engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects.		[SU4] Ocena umiejętności korzystania z metod i narzędzi		
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems		possesses fundamental knowledge of the design, modeling, and optimization of processes and technical systems in highly customized manufacturing operations, taking into account quality-oriented, environmentally sustainable, and occupational safety aspects		[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym		

Subject contents	Course content – lecture		
	The World of VUCA and BANI 4 Pillars of QRM The Power of Time and MCT Mapping QRM Organizational Structure and Cells - Q-ROC and Q-Cell Work Organization Based on FTMS Basic Queueing Theory in Production Customization		
	Course content – laboratory Project implementation using MCT mapping of a selected organization producing highly customized products		
Prerequisites and co-requisites	Basic knowledge of production management		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Problem-based questions (oral exam)	60.0%	40.0%
	Project report presentation	60.0%	20.0%
	Written report	60.0%	40.0%
Recommended reading	Basic literature	Suri R., Zyskaj na czasie, Wyd. 4Results Warszawa 2022	
	Supplementary literature	Waters D., Zarządzanie operacyjne, Wyd PWN 2012	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Discuss the structure of an MCT map. Using an example, define the organizational structure of a selected FTMS. Discuss the pillars of QRM.		
Practical activities within the subject	Not applicable		

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